INTERVENTION BY EXCEPTION

A STUDY OF THE USE OF RISK MANAGEMENT BY CUSTOMS AUTHORITIES IN THE INTERNATIONAL TRADING ENVIRONMENT

INTERVENTION BY EXCEPTION:

A Study of the use of Risk Management by Customs Authorities in the International Trading Environment

David Charles Widdowson

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

> University of Canberra September 2003

Except as specially indicated in quotations and the bibliography, I certify that I am the sole author of the thesis submitted today entitled:

Intervention by Exception: A Study of the use of Risk Management by Customs Authorities in the International Trading Environment

in terms of the Statement of Requirements for a Thesis issued by the University of Canberra's Higher Degrees Committee.

Signature of Author	
Date	

In recent years the international trading environment has been transformed dramatically in terms of the manner in which goods are carried and traded, the speed of such transactions and the sheer volume of goods that are now being traded around the globe. This, together with mounting pressure from the international trading community to minimise government intervention, has caused customs authorities to place an increasing emphasis on the facilitation of trade. In an effort to achieve an appropriate balance between trade facilitation and regulatory control, customs administrations are generally abandoning their traditional, routine 'gateway' checks and are now applying the principles of risk management with varying degrees of sophistication and success.

Experts agree that the means of achieving the desired balance between trade facilitation and regulatory control is through the use of risk management and, while the current body of knowledge provides the basis for formulating general principles of compliance management, there remains a need to determine whether the effectiveness of risk management strategies is contingent upon the operational context in which they are applied.

To this end, the study progresses beyond the conventional views that pervade the literature by examining specific risk management strategies in particular operational settings, such as an international airport, container port facilities, landing sites, road borders and international rail links. This is achieved through the use of a multi-faceted case study and the development of a conceptual framework against which a comparative analysis is conducted, including a model which provides a conceptualisation of the emphatic interrelationship between facilitation, regulatory control and risk management. Whilst the literature implies such a relationship, no conceptual model has hitherto been developed.

International comparisons, against which the issues identified in the case study are benchmarked, comprise the United States Customs Service, Australian Customs Service, South African Revenue Service and the World Customs Organization, which plays a prominent role in establishing international customs policy and practice. Hong Kong has been selected as the subject of the case study as it provides an appreciable, broad-ranging insight into a diverse range of operational environments in which customs authorities are required to carry out their administrative responsibilities. These range from a very modern, highly secure, world-class international airport, through to a large number of relatively remote, unpatrolled makeshift landing sites for small vessels. The operational environments in which the issues are examined are grouped according to the various types of cargo that are subject to customs control. These comprise air, sea, river, road, rail, multi-modal and warehoused cargo.

The study supports the broad body of knowledge that identifies risk management as the means by which regulatory agencies may achieve an appropriate balance between facilitation and regulatory control. It further demonstrates that, while the principles of risk management provide customs authorities with a valid construction for compliance management, irrespective of the operational context in which they are applied, the effectiveness of risk-management strategies is contingent upon the particular operational setting.

Factors that are found to influence the effectiveness of such strategies include a range of information technology issues, such as the level of IT maturity/technological capability of both government and the private sector and the level of sophistication of commercial supply chains. Other influencing factors include various commercial imperatives and constraints, including the wide-ranging commercial lead-times for consignment data, the time-sensitivity of certain classes of cargo, the commercial availability of pre-arrival cargo data and the heterogeneity of particular industry sectors. Physical factors are also found to influence the effectiveness of risk-managed compliance strategies, including the geographic features of the country, the physical infrastructure at points of importation, exportation, storage and transit, and the security of facilities at points of importation, exportation, storage and transit. Finally, the study identifies a number of sociological, cultural and political factors that influence the effectiveness of such strategies, including public views and expectations about acceptable levels of facilitation and customs intervention, the broader regulatory framework governing particular industry sectors and the level, form and degree of acceptance of official corruption.

The study furthers the constructs of risk management theory by way of its empirical application in the context of regulatory compliance management, and its more specific application to customs compliance management in the international trade environment. In addition, the study serves to advance the body of knowledge of risk management theory through its introduction of a contingency perspective, which is demonstrated by reference to a variety of operational settings.

The conceptual model introduced by the study provides a logical framework that demonstrates how the various risk management strategies identified in the literature, including both enforcement and non-enforcement strategies, may be used to effectively manage compliance. It also provides a practical construct for examining and analysing an organisation's style of compliance management.

ACKNOWLEDGMENTS

In submitting this thesis, I wish to acknowledge the wise counsel and professional support of my supervisor, Professor John Halligan of the University of Canberra, who from day one has so generously and capably guided my thinking, moulded my perspective and refined my academic outlook.

I also wish to thank Mr Raymond Li, Deputy Commissioner of the Hong Kong Customs & Excise Department, for his support and advice throughout the study, including his kind authorisation for me to draw upon the extensive work undertaken in my capacity of customs adviser on a series of comprehensive studies of the Hong Kong Customs & Excise Department from 1999 to 2002.

Another Hong Kong Customs official whom I wish to thank is Mr C L Ko, Assistant Head of the Hong Kong Guandong Cooperation Coordination Unit, for his generous assistance and incisive insight into Hong Kong's cargo policies, practices and procedures.

Finally, I wish to acknowledge the invaluable encouragement and support that my wife Sonia has so lovingly and unreservedly provided throughout the 'thesis years' of our lives, and thank her for the enduring understanding and patience which she has shown throughout the entire process. I am indeed indebted to her in reaching this significant milestone.

TABLE OF CONTENTS

1.	INTRODUCTION	1
	Background	1
	Recent Trends	3
	Issues to be Addressed and Study Objectives	4
	Structure	5
2.	LITERATURE REVIEW	7
	Overview	7
	Risk Management in an Organisational Context	8
	Risk Management in the Public Sector Context	10
	Risk Management in the Context of Regulatory Compliance	12
	Risk Management in the Context of Customs Compliance	19
	Conclusions from the Literature Review	24
3.	METHODOLOGY	26
	The Case Study	
	International Comparisons	
	Data Collection	31
	Comparative Analysis	
4.	CONCEPTUAL FRAMEWORK	34
	Risk Management as an Element of Compliance Management	34
	Compliance Management Matrix	41
	Compliance Management Pyramid	45
5.	INTERNATIONAL CUSTOMS CONTEXT	52
	Customs Responsibilities	
	Statutory Framework	59
	Administrative Framework	68
	IT Framework	78
	Risk Management Framework	90
	Summary – International Context	

6.	HONG KONG STATUTORY FRAMEWORK	110
	General	110
	Licensing Provisions	112
	Other Statutory Provisions	123
	Electronic Transactions	126
	Current Initiatives	131
	Summary – Statutory Framework	133
7.	HONG KONG ADMINISTRATIVE FRAMEWORK	134
	General	134
	Air Cargo	141
	Sea Cargo	145
	River Cargo	150
	Road Cargo	153
	Rail Cargo	157
	Multi-modal Cargo	160
	Warehoused Cargo	164
	Summary – Administrative Framework	168
8.	HONG KONG INFORMATION TECHNOLOGY FRAMEWORK	
0.	Hong Kong IT Infrastructure	170
	Customs IT Infrastructure	176
	Summary – IT Framework	194
•		108
9.	HONG KONG RISK MANAGEMENT FRAMEWORK	197
	Air Cargo	197
	Sea Cargo	201
	River Cargo	204
	Road Cargo	207
	Rail Cargo	210
	Multi-Modal Cargo	212
	Warehoused Cargo	215
	Corporate Issues	219
	Summary - Risk Management Framework	223

10. COMPARATIVE ANALYSIS	226
Statutory Framework	226
Administrative Framework	.229
Information Technology Framework	.235
Risk Management Framework	238
Facilitation and Control	.245
Summary – Comparative Analysis	.253
11. CONCLUSIONS	.255
The Study	255
Principal Findings	255
Contributions of the Work	256
Directions for Further Research	257
APPENDICES	
BIBLIOGRAPHY	.294

LIST OF TABLES AND FIGURES

Figure 2.1	Tiered Approach to the Literature Review	7
Table 3.1	Relevant Situations for Different Research Strategies	27
Figure 4.1	Australian/New Zealand Standard Risk Management Process	36
Figure 4.2	Sparrow's Risk Management Model	39
Figure 4.3	World Customs Organization Risk Management Process	40
Figure 4.4	Facilitation/Control Matrix	42
Figure 4.5	Compliance Management Matrix	44
Figure 4.6	Ayres & Braithwaite Enforcement Pyramid	45
Figure 4.7	Risk-based Compliance Management Pyramid	46
Table 4.1	Compliance Management Styles	48
Figure 4.8	'Gatekeeper' Compliance Management Pyramid	51
Figure 5.1	ACS 'Customs Compliance Continuum'	76
Figure 5.2	USC Trade Compliance Risk Management Process	97
Figure 9.1	Flow of Dutiable Commodities, Including Potential Leakage Points2	217
Figure 10.1	International Facilitation/Control Matrix	246
Figure 10.2	International Compliance Management Matrix	247
Figure 10.3	Hong Kong Facilitation/Control Matrix	249
Figure 10.4	Hong Kong Compliance Management Matrix	252

APPENDICES

Appendix 1	Members of the World Customs Organization	260
Appendix 2	Interviews Conducted	262
Appendix 3	Revised Kyoto Convention General Annex - Summary of Provisions	263
Appendix 4	Overview of Hong Kong's Import and Export Licensing Provisions	283

This study examines and analyses the way in which customs administrations control and facilitate international trade, particularly through the application of risk management strategies. It endeavours to determine whether the ability of risk management strategies to influence trade facilitation and regulatory control is contingent upon the operational context in which such strategies are applied, and seeks to identify the factors that may influence the effectiveness of different risk management approaches in a variety of operational settings.

BACKGROUND

A principal determinant of the degree to which the movement of cargo may be expedited across a country's borders, and the level of government control which may be exercised over such cargo, is the relevant statutory framework. Formal legislative provisions dictate the circumstances under which cargo may cross a country's borders, and how and to whom these movements must be reported. Such provisions include any licensing, authorisation and permit requirements relating to traders and service providers, and to the goods themselves, including revenue-related requirements such as import duties and other taxes.

While all statutory requirements must be provided for in national law, those which are designed to fulfil a country's obligations to its trading partners have their origins in bilateral agreements or international treaties and conventions such as those sponsored by the World Trade Organization (WTO) and World Customs Organization (WCO). Other statutory requirements are country-specific and are generally designed to meet public health, safety and internal security needs. Combined, the various legal requirements can have a significant impact on the overall operation and efficiency of international supply chains (e.g. World Trade Organization, 2002).

A key element of Government regulation which impacts on commercial trade is the way in which the law is applied in an administrative context. While Government agencies have a fundamental responsibility to ensure that statutory requirements are met, the manner in which this is achieved is often quite flexible (see Bardach &

Kagan, 1982b and Sparrow, 2000). For example, the law may require that certain goods may only be imported under licence. However, the manner in which the licensing arrangements are implemented by the administering agency (usually customs) is often open to administrative discretion. A licence may, for example, be issued on a shipment-by-shipment basis, a periodic basis (e.g. twelve months), or issued for an indefinite period provided certain conditions are met. Administrative decisions of this nature may also apply to such issues as the physical control over goods, the movement of goods, information requirements, the timing and method of reporting and the timing and form of revenue collection.

The distinction between statutory and administrative requirements is an important one, particularly in the context of organisational flexibility and change management. This is because the potential for change, the processes and stakeholders involved in effecting change and the timeframe in which change may be achieved differ markedly depending on whether the requirement is for a change to statutory provisions or administrative procedures.

The author has been heavily involved in customs matters for the past 26 years, including seven years as a senior executive in the Australian Customs Service. He is currently a specialist consultant on customs and international trade facilitation, through his senior roles with the Surgam Management Group and the University of Canberra's Centre for Customs Studies. In recent years he has been involved in customs modernisation studies and policy reviews, development and implementation of risk management, compliance management, and change management programs, systems development, legislative reform programs, self-assessment regimes, organisational reform programs and business process reengineering.

Much of this work, both in Australia and overseas (including eighteen customs administrations throughout Asia, Africa and the Pacific), has related to the introduction of new compliance strategies which are based on the principles of risk management. A number of significant issues (see below) have arisen during the course of this work and it was decided to address these by way of a formal thesis.

RECENT TRENDS

The past decade has seen a significant shift in the way in which customs administrations carry out their responsibilities. In recognition of the need to adopt contemporary management practices and in the face of mounting pressure from the international trading community, customs administrations around the globe are abandoning the traditional, routine 'gateway' checks and are now applying the principles of risk management with varying degrees of sophistication and success (e.g. Hayes, 1993 and World Customs Organization, 1999 & 2002a).

In recent years there has been an increasing trend among customs administrations towards the development of systematic approaches to the management of risk, with several administrations having adopted formal risk management policies and procedures (e.g. Banks, 1999). This trend can be attributed to a range of factors, not the least of which is the high profile accorded to the concept of risk management by various international initiatives that have served to raise the awareness of the potential benefits of applying risk management principles in the customs environment. For example, the Asia Pacific Economic Co-operation (APEC) Sub-Committee on Customs Procedures has included risk management on the Customs Common Action Plan, in an effort to introduce sound risk management practices across the customs administrations of the 18 APEC economies (Zhang, 2001). Similarly, the Oceania Customs Organisation (OCO), whose members include a number of developing countries in Australasia, Melanesia, Micronesia and Polynesia, is seeking to achieve the adoption of risk management by all OCO members, as a tool to improve administrative and operational efficiency within the region (Oceania Customs Organisation, 2000).

Of particular significance, however, is the high profile accorded to risk management by the World Customs Organization (WCO), the key international policy-setting organisation on customs issues. Specifically, the revised International Convention on Simplification and Harmonisation of Customs Procedures (the revised Kyoto Convention), endorsed by the Council of the WCO in June 1999 (World Customs Organization, 1999), includes a fundamental requirement for contracting parties to the Convention to integrate the principles of risk management into all customs control programs. The Convention has been developed in the face of mounting pressure from the international trading community to minimise the level of customs intervention in cargo movements and to maximise the level of trade facilitation, and is regarded by the WCO as the international 'blueprint for modern and efficient Customs procedures in the 21st century' (World Customs Organization, 2002a, p.1).

The fact that risk management represents such a key element in the Convention is due principally to the lobbying of countries such as Australia, Canada and the US, all of which have had risk management-based control regimes in place for several years. Indeed, the risk management model adopted by the WCO reflects the framework presented in the Australian/New Zealand Standard for Risk Management, AS/NZS 4360 (Standards Australia, 1999a) which, at the time of the development of the Convention, was the only formal risk management standard of its type.

ISSUES TO BE ADDRESSED AND STUDY OBJECTIVES

Many countries are planning to become signatories to the Convention, which implies a general acceptance on their part that a risk-managed approach represents a sound basis for customs administrations to facilitate the majority of international trade transactions while maintaining acceptable levels of regulatory control.

Effecting a shift from the more traditional methods of 'gatekeeper' customs control to one which embraces the principles of risk management requires a significant change to the way in which customs administrations carry out their responsibilities. The manner in which administrations implement a risk-managed approach to their statutory responsibilities raises two important issues:

- □ Whether the benefits of adopting a risk-managed approach to customs compliance management in the international trading environment are contingent upon the context in which they are applied; and if so
- □ What contextual factors influence the suitability of a particular risk-managed approach.

The first issue is fundamental to determining whether a standard approach to risk management is feasible, while the second may prove fundamental to formulating risk

management strategies that are relevant to the circumstances in which they are to be applied.

In considering these issues, it is important to note that the customs environment is only one area in which the use of risk management principles is being encouraged. The Convention in fact draws upon the literature which advocates the effective management of risk in a range of regulatory settings. Despite this, very little research has explored the relationship between the application of risk management in the customs environment and the particular context in which it is applied. This study seeks to contribute to both the theory and its application by:

- determining whether the effectiveness of risk management strategies employed by customs authorities to control and facilitate international trade is contingent upon the operational context in which they are applied
- identifying contextual factors which may influence the effectiveness of different risk management approaches in a variety of operational settings
- developing a compliance management model to analyse the way in which risk management principles are applied by customs authorities in a range of operational settings.

STRUCTURE

Chapter 2 reviews the literature relating to current theories of risk management, including the application of risk management principles to the management of compliance by regulatory agencies and, more specifically, its application by customs authorities to the management of international trade compliance.

Chapter 3 outlines the methodology used in the study, and chapter 4 introduces a conceptual framework that facilitates the process of analysing the way in which the principles of risk management are applied by customs authorities.

Chapter 5 examines and analyses a range of international initiatives in the context of the conceptual framework, including the WCO's international blueprint for customs administration, with particular reference to its focus on risk management, together with an examination of a broad range of international customs compliance management strategies that are based on the WCO blueprint. These strategies are

examined in the context of a country's statutory framework, the administrative framework of a country's customs organisation, the technological framework of both industry and government and the type of risk management framework adopted by a country's customs organisation.

Chapters 6, 7, 8 and 9 examine and analyse a multi-faceted case study which evaluates risk-based compliance management strategies in a variety of operational settings, which are currently being employed by or being developed by the Hong Kong Customs & Excise Department. These strategies are in turn examined in the context of the Department's statutory, administrative, technological and risk management framework.

Chapter 10 provides a analysis of the various strategies in the context of the conceptual framework, including a comparative analysis of the overall balance between regulatory control and trade facilitation that is being achieved by the various customs administrations, and an analysis of the factors which influence the suitability of different risk management strategies in a variety of operational settings.

Chapter 11 discusses the principal findings of the study and the contributions of the work, and identifies directions for further research.

OVERVIEW

This chapter examines the broad range of literature relating to risk management from a four-tiered perspective. Initially examining commentary on the discipline of risk management in the broadest organisational context, the review proceeds to focus on literature which addresses risk management at three levels within the context of the public sector, i.e. the public sector generally, the narrower field of regulatory compliance management and the very specific field of customs compliance management. It identifies and assesses the gaps in the body of knowledge that have led to the development of the research questions and objectives of the study. The non regulatory-specific literature has been largely drawn from the Australian context.

The four-tiered approach which has been adopted in this review is depicted in Figure 2.1. Taking organisational risk management as its starting point, it progressively views each successive tier as a sub-set of the broader context in which the principles of risk management are applied.



Figure 2.1: Tiered Approach to the Literature Review

Firstly, the review examines literature relating to the broad theory of risk management in the context of organisational strategic management theory. It includes Bernstein (1996), Viljoen (1994) and Standards Australia (1999a and 1999b).

Secondly, the review examines the recent literature that has served to establish risk management as a public sector management standard. In doing so, its principal focus is on the commentary associated with the adoption of risk management by public sector agencies in Australia, at both the federal and state levels. This provides a perspective of current thinking on the general application of risk management principles to the broad range of responsibilities of public sector agencies. It includes Standards Australia (1999c), Barrett (1997), Knight (1999) and Management Advisory Board (1996).

Thirdly, the review examines the literature relating to the more specific application of risk management principles by public sector organisations to the management of regulatory compliance, such as taxation, environmental protection, social welfare and other regulatory compliance regimes. This includes an examination of recent trends and developments among regulatory agencies from an international perspective. It includes Sparrow (1994 and 2000), Ayres & Braithwaite (1992), Grabosky & Braithwaite (1986) and Carmody (1998).

Finally, the review proceeds to examine the very specific area of customs compliance management, particularly recent commentary relating to the application of the principles of risk management by customs authorities to the management of international trade compliance. This includes an examination of the literature relating to the initiatives of international bodies such as the World Trade Organization and the World Customs Organization, as well as country-specific literature and the relatively small amount of general commentary available on this particular issue. It includes the World Customs Organization (1999), Australian Customs Service (1995a), Lane (1998a), Banks (1999) and U.S. Customs Service (1994).

RISK MANAGEMENT IN AN ORGANISATIONAL CONTEXT

Risk management has long been recognised as an important management discipline in a number of fields including the medical, engineering and financial sectors. Its theory and application have most notably been advanced in the areas of insurance and financial investment. Works in such fields have served to develop the basic theories of risk management, such as the nature of risk, risk measurement, the concept of acceptable risk and the principles of likelihood and consequence.

In recent times risk management has emerged as a legitimate management discipline in the broader sense. The fact that risk management plays a key managerial decisionmaking role in areas as diverse as marketing, mergers, consumer safety, environmental protection, warfare and agriculture is well documented (e.g. Bernstein, 1996, Waring & Glendon, 1998). In this context, risk management is regarded as the ability to anticipate what may occur in the future and to identify appropriate courses of action to deal with such possibilities.

In tracing the development of risk management theory and practice through the ages, Bernstein describes risk management as 'one of the prime catalysts that drives modern Western society' (Bernstein 1996, p.1) and concludes that the significant advances in science, technology and commercial enterprise which characterise modern society have been facilitated by the availability of a rational process of managing risk. This broader application of risk management, beyond its more traditional financial applications, is also recognised in the more contemporary literature on strategic management, which identifies the effective management of organisational risk as a key element of strategic management, e.g. Viljoen (1994), Forster & Browne (1996), De Kluyver (2000), Hubbard (2000) and Viljoen & Dann (2000).

Some such commentators address the concepts of risk management without reference to the term itself. For example, Forster & Browne (1996) describe organisational strategy as involving decision-making to guide the direction of the organisation in the expectation of future consequences. In doing so, they draw a clear distinction between the concepts of 'risk' and 'uncertainty', confining their use of the term 'risk' to situations in which the probabilities of outcomes can be quantified, and 'uncertainty' to situations in which the probabilities of outcomes cannot be quantified.

In what may be considered a contradictory view to Bernstein's theory of rational risk management processes, Forster & Browne state that, 'under uncertainty there can be no basis for substantively rational decision making' (Forster & Browne, 1996, p.172). Rather than contradicting Bernstein's theory, however, it is considered that

commentators such as Forster & Browne are simply emphasising the often highly subjective nature of managerial decision-making, given the complexity of the internal and external environments of organisations. In doing so, such commentators are cautioning against any suggestion that risk management will provide definitive solutions to problems, while highlighting the ability of risk management principles to facilitate the identification of a range of potential solutions.

This view of risk management as a strategic decision-making tool with broad organisational application has led to the development of generic standards, guidelines and procedures world-wide which identify a need to adopt a systematic approach to managing the wide variety of risks to the achievement of organisational objectives (e.g. Standards Australia, 1999a, Standards Council of Canada, 2001 and Japanese Standards Association, 2001). In this regard, much work has been undertaken in Australia and New Zealand in an attempt to develop generic guidelines for the management of organisational risk, which has resulted in the promulgation of the Australian/New Zealand Risk Management Standard. The Standard, which is examined in Chapter 4, reinforces the view that risk management is applicable across a wide range of organisational disciplines through its focus on risk management as a generic process to support managerial decision-making.

RISK MANAGEMENT IN THE PUBLIC SECTOR CONTEXT

Having examined the literature which addresses risk management in a broad organisational context, the review now turns to a brief examination of the more specific context of risk management in the public sector environment.

The plethora of contemporary literature on the adoption of risk management principles by the public sector in Australia mostly addresses the implementation of the Australian Risk Management Standard by public sector agencies, which was jointly developed by representatives of the public and private sectors to ensure its relevance to both, and which serves to provide a generic, systematic approach to the application of risk management principles (see Standards Australia, 1999a).

The applicability of risk management to the public sector environment has, however, been widely documented for over a decade. Indeed, an understanding of the potential benefits of adopting risk management in the area of public administration was evident

in the 1980s, including recognition of its relationship to the achievement of public sector goals (e.g. Hamilton, 1990).

In addressing the issue of managing risk in a public sector context, commentators identify the need to adopt a systematic method of addressing risks to the achievement of public sector organisational objectives, including individual government programs in order to optimise the effectiveness of risk treatments, rather than attempting to deal with risks on an *ad hoc* basis. In this regard, observers contend that the public sector's adoption of a systematic approach to risk management strategies serves to assist in maximising value for money and enhancing public accountability, with some taking the debate a step further by claiming that it is incumbent upon Australian Public Sector managers to adopt prudent risk taking strategies as a matter of course, in order to ensure effective and efficient management of their particular areas of administrative responsibility. Such observers contend that an effective risk management approach should result in a better allocation of public sector resources, improved accountability standards, increased cost-effectiveness and an enhanced decision-making capability (e.g. Australian National Audit Office, 1997a; Department of Finance, 1994; Management Advisory Board, 1996; Reith, 1996; and Somlyay 1996).

Discussion of risk management in the context of such issues as efficiency, effectiveness, decision-making and accountability leads commentators to the identification of an explicit linkage between the use of risk management and matters of corporate governance. Such commentators argue the need to apply the principles of risk management when developing corporate strategies within the public sector, and contend that such principles should be integrated into the corporate planning processes of the organisation rather than being treated in a 'stand alone' manner. In doing so, they contend that the adoption of risk management principles by public sector managers should lead to more effective strategic planning, a clearer focus on outcomes and the potential risks to achieving those outcomes, a greater awareness of and capability to respond to changing environments, greater transparency of decision-making and improved organisational efficiency and effectiveness (e.g. Australian National Audit Office, 1997b, Barrett 2000, Barrett 2001, Emergency Management Australia, 2000). Barrett (1997), for example, identifies the encouragement of better public sector performance through sound risk management as a key ingredient of any

corporate governance framework. In doing so, he describes the relationship between corporate governance, risk management and the achievement of objectives as one which is mutually supportive.

The plethora of literature that has served to formalise the application of risk management principles in the Australian public sector focuses heavily on the need to adopt a proactive approach to managing risk. In this regard, commentators contend that a key benefit of adopting a systematic approach to risk management is the ability to proactively identify and address issues that have the potential to adversely impact on organisational objectives at some point in the future. As such, commentators regard risk management to be a management tool that, appropriately applied, may not only be used to deal effectively with existing risks, but also to develop strategies that will address future contingencies, thereby enhancing the capacity of public sector agencies to improve the ongoing efficiency and effectiveness of their organisational performance (e.g. Australian National Audit Office, 1997a; Management Advisory Board, 1996; and Standards Australia, 1999c).

Commentators also note that, whilst the basic principles of risk management remain constant across public sector agencies, the context in which the principles are applied will vary. In other words, while some specific areas of risk may have particular relevance to individual Australian Public Sector agencies, or may even be unique to particular agencies, the basic principles of risk management are generic in nature and consequently the same underlying principles for managing risks remain relevant across the entire public sector (see Management Advisory Board, 1996).

RISK MANAGEMENT IN THE CONTEXT OF REGULATORY COMPLIANCE

The literature examined to this point has identified the relevance of risk management to organisational decision-making in the public sector environment as well as in the broader managerial context. The study now examines the application of risk management principles in a far more specific context within the public sector environment, i.e. its application to the compliance management responsibilities of regulatory authorities. The fundamental role of regulatory authorities is to ensure compliance with the statutory provisions for which they have administrative responsibility. In order to achieve this, such authorities must devise strategies (i.e. risk treatments) to address the potential risks of non-compliance. Consequently, at this stage of the review, the key focus is on literature which contributes to the debate on developing appropriate regulatory compliance management strategies and the role of risk management in such decision-making processes.

International observers of regulatory reform contend that legislators often overlook the practical implications of laws, and that an international process of reform is urgently required (see OECD, 1997). According to the OECD, such reform should include more flexible approaches to regulatory compliance management, with the longer-term goal of shifting governments 'from a culture of *control* to a culture of *client service*' (OECD, 1997, p. 9). Such a cultural shift requires regulatory organisations to accept the OECD view that strategies other than control strategies represent legitimate means of mitigating the risk of non-compliance.

In discussing the tendency for regulatory authorities to rely heavily on the more traditional control or enforcement strategies as opposed to customer service strategies, the OECD contends that:

implementation - consisting of strategies such as education, assistance, persuasion, promotion, economic incentives, monitoring, enforcement and sanctions - is very often a weak phase in the regulatory process in OECD countries, who tend to rely too much on ineffective punitive threats and too little on other kinds of incentives (OECD, 1995, p.18).

The view that other forms of incentives should play a key role in regulatory compliance, including rewards, is widely held by commentators, who contend that a broad range of compliance management strategies and techniques should be available to regulatory authorities, in order to enable such authorities to choose the most appropriate strategy to match the circumstances of a particular incident of non-compliance (e.g. Schelling, 1983; Carmody, 1998 and Sparrow, 2000). In addressing this issue, Sparrow uses the term 'enforcement discretion' to describe such a regime in which regulators have a range of compliance management strategies to choose

from, rather than simply being restricted to the more traditional enforcement strategies.

The literature suggests that such a shift is occurring in a broad range of areas that are the subject of regulation, including taxation, where there is a general recognition that a 'one size fits all' approach to managing the risks of non-compliance is inappropriate, based on the belief that most taxpayers are honest and consequently require a different level of scrutiny commensurate with the level of risk which they are perceived to present. This risk management approach to compliance is highlighted by a number of commentators who espouse the need for a dual approach to compliance, or indeed a continuum of approaches, involving a 'regulatory enforcement' approach at one end of the spectrum and a 'regulatory assistance' approach at the other. Regulatory enforcement includes such interventions as sanctions, prosecution, licence revocation and the like, while regulatory assistance includes client services such as education and technical assistance. The two fundamental approaches to compliance management are identified by some observers as strategies for 'prevention' and 'cure', whereby preventive techniques or strategies are regarded as being appropriate for addressing what could loosely be described as 'unintentional' non-compliance, while enforcement techniques or strategies are required to deal with those who intentionally fail to comply (e.g. Carmody, 1998; Grabosky & Braithwaite, 1986; Osborne & Gaebler, 1992; and Widdowson, 1998).

Such commentators contend that those who make 'innocent errors' require a quite different regulatory response to those who are actively attempting to cheat the system, based on the premise that different strategies will have a different impact on taxpayer behaviour, depending upon whether or not the taxpayer is inherently honest. In this regard, commentators argue that law enforcement represents only part of the overall function of regulatory agencies, and that in most instances various forms of education are likely to represent more effective compliance management strategies. In all instances, the appropriate regulatory response, it is argued, depends on the nature of the identified non-compliance. For example, in developing this theme, Carmody (1998) comments that it is counterproductive to treat those who inadvertently submit an incorrect assessment in the same way as 'hardened tax evaders'. Further, it is argued that client service represents a particularly effective form of compliance management, as it informs regulated parties and others who may be in a position to

influence their behaviour of the types of risks and risk factors of concern to regulators (e.g. O'Hare, 1982). An example of this type of approach is the extensive information strategy employed by the Australian Quarantine and Inspection Service, which encourages travellers to 'dump or declare' plant or animal products in an effort to protect Australia from the risks posed by exotic diseases and pests.

Similarly, commentators contend that self-regulation (or self-assessment) represents a legitimate compliance management strategy for regulators to employ in situations where certain members of the regulated community are deemed to be relatively trustworthy, i.e. present a relatively low risk of non-compliance. Under such an arrangement, these parties are permitted to undertake their own assessment of their compliance with the relevant regulations, on the understanding that such assessment may be subjected to some form of government verification (e.g. Ayres & Braithwaite, 1992).

In addressing the inherent differences between traditional enforcement methods and the less punitive client service strategies, some observers contend that the more traditional enforcement strategies, such as taxpayer audits and investigations, are generally regarded to be reactive in nature, and are designed to address the 'failures' of preventive compliance strategies, such as taxpayer education, technical assistance and guidance (see Osborne & Gaebler, 1992). In this regard, Sparrow (2000) suggests that regulatory reformers favour the use of preventive or 'non-enforcement' techniques to achieve compliance, even in situations where a regulated party is found to be non-compliant. Sparrow holds that this trend away from enforcement and towards 'voluntary compliance' leads to a situation in which the more traditional enforcement methods are generally considered to be seen as a last resort, such as dealing with repeat offenders when the softer compliance techniques have failed. Nevertheless, commentators indicate that regulators continue to place considerable reliance on the relatively heavy-handed, law enforcement approach to compliance, which is generally regarded to be adversarial and punitive, and that such an approach may well be based on an underlying contention by the regulatory authority that the regulated community cannot be trusted to comply voluntarily (see Shover, Clelland & Lynxwiler, 1986).

In addressing the apparent tendency for regulators to favour a traditional enforcement approach to compliance management, however, some commentators hold the view that public sector managers have generally been able to adopt a risk-averse approach to management without challenge. In this regard, it is argued that such a situation has emerged as a result of the bureaucratic checks and balances that have evolved in response to the high level of scrutiny and accountability associated with public sector decision-making. Such a risk-averse approach, it is argued, results in a focus on, and high degree of scrutiny of, individual transactions, which Vassarotti (1997) identifies as 'inherently more expensive than activity tailored realistically to the true level and nature of the risks being managed' (Vassarotti, 1997, p.79).

The basic contention that different approaches to regulatory compliance are warranted is also argued from the perspective of the context in which a regulated party operates. For example, it is argued that different industry structures will be conducive to different degrees and forms of regulation, and that regulators should therefore be responsive to these differences when devising compliance strategies. Similarly, it is held that tough enforcement is not necessarily more effective than gentle persuasion, and vice versa, but that the most appropriate strategy depends on the particular circumstances (see Ayres & Braithwaite, 1992). Nevertheless, observers equally argue that regulators should always retain the capacity to impose tough sanctions, claiming that compliance strategies based solely on persuasion and self-regulation are likely to be exploited (e.g. Ayres & Braithwaite, 1992 and Carmody, 1998). In arguing this point, Carmody, whilst identifying the need to balance 'audit' with 'service', nevertheless adheres to the basic tenet that, ultimately, taxpayer compliance is paramount. In this regard, he emphasises the need to balance the two basic approaches to compliance management in such a way as to maintain community confidence that tax evaders are being appropriately dealt with. Similarly, Sutinen (1996), who examines the issue of compliance management in a fisheries context, comments that 'chronic, flagrant violators' must be controlled, even though they may represent a small proportion of the total regulated population and the extent of their illegal activities is minor.

In examining the various types of sanctions used to enforce compliance, some observers have sought to identify the types of sanctions or 'punishments' that are likely to achieve the highest level of improvement in compliance levels. In doing so, some argue that the softer approaches, such as persuasion and the issue of warning letters, are likely to be employed most frequently by regulatory authorities and that, as the severity of the sanction increases, the incidence of usage is likely to decrease (see Ayres & Braithwaite,1992). Ayres & Braithwaite further argue that, as the enforcement strategy available to the regulatory agency increases in its severity, the agency is likely to be more effective in achieving compliance and is less likely to be required to resort to tough enforcement actions. In other words, as the size of the stick increases, the need to use it decreases.

Commentators also identify the trend towards increased client service and reduced enforced compliance as one of political correctness. For example, Sparrow (2000), in describing the trend among regulatory agencies to seek to employ a broader range of compliance management techniques, states that 'the tools of voluntary compliance are the newer, more politically fashionable, and less adversarial methods: education, outreach, partnership, consensus and facilitation' (Sparrow, 2000, p.56). It is questionable, however, whether facilitation may be regarded as a compliance management tool in its own right, or whether it is in fact an outcome of a risk-based approach to compliance management.

The argument against a 'one size fits all' approach is further supported by those commentators who examine the tendency of regulatory authorities to establish 'over-inclusive rules', i.e. a tendency to administer the law in a particular way (or applying a particular risk treatment to mitigate non-compliance) regardless of the circumstances. In this context, it is argued that regulatory regimes may appear to be oppressive due to the manner in which the relevant legislative provisions are administered, and not because the provisions themselves are inadequate (see Bardach & Kagan, 1982a and 1982b). This differentiation between statutory provisions and administrative procedures reinforces Carmody's contention that different methods of enforcing a single law may be appropriate depending on the particular circumstances. Other commentators support this tenet, contending that regulatory and law enforcement reform should focus more on the behaviour of the regulators rather than on the regulations which they administer, since the way in which a law is implemented and administered can have a significant impact on its effectiveness (e.g. Sparrow, 2000).

One suggested method of addressing the problem of over-inclusive rules is to provide for a degree of administrative discretion, either at an operational level, or by way of a higher-level appeals mechanism. In supporting this principle, commentators argue that administrative flexibility should be achievable in regulatory settings, due to the considerable latitude that exists at the higher managerial levels, which extends to determining the nature and style of their regulatory strategies (see Bardach & Kagan, 1982a and Landy, Roberts & Thomas, 1990).

One of the more contemporary commentators has expanded on previous studies by examining new capacities for managing compliance through the analysis of trends in non-compliance, the prioritisation of risk and the introduction of 'intelligent interventions' using a much broader range of enforcement strategies than the more traditional control-oriented methods (Sparrow 1994). In particular, Sparrow's study, set in the context of environmental protection, policing and tax collection, advances the compliance management debate by introducing key elements of risk management and presenting a systematic process for managing risks in a regulatory environment. According to Sparrow, the need to adopt such an approach is based on the premise that there are 'too many violators, too many laws to be enforced, and not enough resources to get the job done' (Sparrow, 1994, p.ix). He contends that, in recognition of their inability to achieve complete coverage, regulatory agencies are increasingly acknowledging the need to focus on high priority problems and to direct their enforcement actions towards carefully selected targets. This trend in compliance management strategies is also identified by the OECD (2000). Sparrow concludes that:

Agencies begin asking what is feasible, what is most important, and what presents the greatest risks. They have to define some analytical framework within which risks can be assessed and evaluated. Then they have to develop criteria for selection, and begin allocating organizational resources according to agreed priorities (Sparrow, 1994, p.xxv).

Sparrow further develops his theories in a later study in which he contends that application of the concepts of risk control and problem solving should form the basis of regulatory reform, as they have the potential to significantly change the way in which compliance is managed Sparrow (2000). In making this claim, he suggests that

the principles of risk management, whilst seemingly simple, are generally poorly understood. In his examination of compliance management case studies in areas such as justice, policing, occupational health and safety, immigration, transport and environmental protection, Sparrow (2000) identifies a trend towards the application of risk management principles, resulting in 'the emergence of risk control or problem solving as a continuing form of operational practice' (Sparrow, 2000, p.84). While Sparrow does not use the term 'risk management' (favouring the term 'problem-solving'), he describes problem-solving as an approach which identifies risk through systematic data analysis and subsequently focuses resources on those risks in an attempt to mitigate them. Sparrow also discusses the difficulties involved in measuring the results of compliance efforts, and in relation to traditional compliance approaches, he concludes that:

inspectors, agents, auditors, collectors, or other enforcement personnel are working hard and getting results (of a certain kind). For that, taxpayers should be thankful. What they will never be able to show, though, is whether these same personnel are working on the right things, or in smart ways, using the best methods, or actually influencing external behaviors or conditions (Sparrow, 2000, p.117).

RISK MANAGEMENT IN THE CONTEXT OF CUSTOMS COMPLIANCE

Having reviewed the literature on the use of risk management in the context of regulatory compliance, the specific area of customs compliance management is now considered. Specifically, the review focuses on the literature relating to the use of risk management by customs administrations in the context of administering international trade regulations.

Customs administrations not only have an objective to ensure compliance with the law, but among other things, to provide trade with an appropriate level of facilitation. Consequently, risks to the achievement of organisational objectives not only include the potential for non-compliance with customs laws, but also the potential failure to facilitate trade. In this regard, the WCO (1999) comments that, in light of the rapid increase in world trade and the falling or static resources generally available to customs, the use of risk management techniques is essential for customs administrations to effectively and efficiently perform their diverse responsibilities

associated with revenue collection, trade policy implementation, community protection and trade facilitation. In a similar vein, commentators argue that risk management has evolved as a central feature of customs administrations world-wide, as customs managers in most countries have searched for methods of addressing increasing demands for greater efficiency (which generally implies reduced resources), speedier clearance of cargo, increased levels of trade facilitation and improved performance in intercepting illegal transactions (e.g. Kelly, 1993).

In addressing the issue of improving the efficiency and effectiveness of customs administrations, observers support the rigorous application of risk management principles to the way in which international trade compliance is managed, and they emphasise the need to direct resources towards those areas which present the highest level of risk, while minimising intervention in other areas. Lane (1998a), for example, states that modern customs techniques 'are geared specifically to managing risk by identifying high-risk areas and categorizing problems by severity of risk and developing countermeasures to prevent violations' (p.117). On a related issue, it is argued that, in order to increase the level of efficiency and effectiveness among customs administrations, it is necessary to improve the quality of information and intelligence (e.g. Lane, 1998a and Shaver, 1998). On this issue, Shaver (1997) describes the need for information and intelligence as underpinning the 'modern philosophies of risk management and strategic assessment which seek to ensure that Customs resources are deployed against high risk consignments...' and contends that the use of risk analysis to minimise customs intervention is an example of international best practice. Such propositions serve to reinforce Sparrow's (1994) concept of 'intelligent interventions' as an appropriate alternative to traditional methods of regulatory control.

Several commentators note that customs authorities are continually searching for technologies and techniques that that will assist in minimising risks in an environment which is generally described as one in which risk is inherently high. In this regard, it is argued that the transition by customs authorities away from their traditional 'gatekeeper' methods of control to more contemporary approaches to compliance management, is being facilitated by the increasingly widespread use of information technology, particularly electronic data interchange (EDI).

Such commentators further note that the technological advances which have provided the capability to automate customs processes and procedures, also provide an opportunity for the introduction of improved risk management techniques. In this context, it is argued that a risk management plan is a prerequisite for any customs administration that wishes to take a strategic approach to their business, and that the use of risk management enables customs authorities to efficiently screen the high numbers of international trade transactions, identify those which present the highest risk in terms of potential non-compliance and prioritise resources to address the high-risk shipments (i.e. make intelligent interventions). In so doing, it is argued, the vast majority of shipments that are considered to represent a low risk may be facilitated through the customs clearance process (e.g. Banks, 1999; Hayes, 1993; Lane, 1998a; and Vassarotti, 1993). In highlighting the difficulties being faced by customs authorities in ensuring regulatory compliance, Lane (1998a) describes the task of customs as one of uncovering 'the silent, unreported violations out of ... the literally millions of transactions that cross each border each year' (p.116).

It is widely agreed that the concept of trade facilitation is emerging as a key focus area for customs authorities around the globe, as they are being increasingly confronted by community expectations of facilitating international trade whilst maintaining appropriate levels of regulatory control. In this regard, observers contend that customs authorities have an obligation to actively facilitate legitimate trade, and it is widely held that the effectiveness of government policies on international trade movements is dependent upon the successful implementation of those policies by customs authorities. As such, it is argued that risk management is emerging as a critical management tool to assist customs authorities to implement such policies with virtually no impediment to the flow of international trade (e.g. Shaver, 1998 and Kelly, 1993). In this context, whilst noting that there is always an element of risk in facilitating the movement of goods, the WCO (1999) concludes that 'The extent of controls to ensure compliance with the laws and regulations which the Customs are responsible for enforcing should be proportionate to the level of assessed risk.' (Ch.6, p.10).

Taking this argument to the extreme, Grabosky (1997) provides a very insightful view of an ideal regulatory compliance regime in which there is supposedly no risk, commenting that 'In the ideal regulatory context the regulatee does the right thing without any threat or inducement from government. Compliance flows naturally from self-regulatory systems that are already in place' (p. 196). Grabosky and other commentators recognise, however, that even in a less than ideal regulatory environment there remains scope for at least some degree of self-regulation. For example, Vassarotti notes that:

In audit activities, risk management replaces routine and tedious 100 per cent checking activity with more focussed effort designed to maximise the chances of detecting errors. Typically, this change has been accompanied by a shift towards self-assessment on the part of traders... (Vassarotti, 1993, p. 9).

In the context of developing effective compliance management strategies, a number of customs authorities have identified the need to balance enforcement with client service, and in doing so they have identified benefits in providing regulated parties with incentives to comply, including the opportunity to increase their level of selfassessment. Facilitative initiatives of this nature are being viewed as key elements in a balanced approach to managing regulatory compliance, with the achievement of regulatory compliance being increasingly regarded as a shared process between the regulated party and customs (referred to by U.S. Customs as the principle of In this regard, Lane (1998a) contends that customs 'informed compliance'). authorities would benefit from working with the international trading community in order to gain their support in identifying and preventing instances of non-compliance. Such principles have been recognised by the Australian Customs Service in the context of developing a comprehensive blueprint for more effective compliance management strategies (Australian Customs Service, 1995a) and by the U.S. Customs Service, which comments that, in achieving the ultimate objective of its compliance management program, i.e. enhanced compliance with applicable laws, there is a clear need to balance the elements of facilitation and control (U.S. Customs Service, 1994).

This approach is further supported by the Australian Customs Service (1997) through the introduction of an industry partnership concept, which is based on the premise that companies with a good record of compliance require less regulatory scrutiny than those with a history of poor compliance. A key element of the strategy seeks to provide highly compliant companies with more latitude to self-assess their revenue liability, by relying primarily on their internal accounting systems and procedures. This in turn provides compliant companies with a high degree of flexibility in the way in which they demonstrate their compliance with the relevant regulatory provisions. A key benefit of such an approach from a customs perspective is the willingness displayed by industry to invest in those systems and procedures which impact on their compliance levels, in order to achieve the benefits of the partnership arrangements (Widdowson, 1998).

The approach being adopted by such administrations is widely supported by observers, who contend that customs authorities must strive to achieve an appropriate balance between enforcement and client service, arguing that it is in the best interests of government to ensure that those who wish to comply are given every opportunity to do so through strategies such as publications, seminars and advance rulings prior to importation (see Lane, 1998a). Equally, however, commentators recognise that there will always be deliberate non-compliers whose actions should be identified and addressed through more traditional enforcement activities, resulting in the need for a variety of compliance management options. For this reason, it is argued, there is a need to ensure that customs authorities adopt a multi-faceted approach to compliance management which recognises that different risk treatments may be appropriate in different circumstances, depending on the type and level of the identified risk. In this regard, however, some observers have identified a general reluctance on the part of customs authorities to make the transition from the more traditional enforcement approach to one which encompasses client service strategies (e.g. Lane, 1998a). The need for such a range of compliance options is, however, reinforced by commentators who argue that the effective management of compliance requires a range of strategies to be made available to regulators, ranging from 'client service' strategies such as technical assistance and advice, education and legislative simplification through to the more severe enforcement strategies such as the imposition of administrative penalties, investigation and criminal prosecution.

In examining the range of compliance management strategies available to customs authorities, observers contend that there is a need to strike an appropriate balance between incentives for compliance and sanctions for non-compliance, recognising that the ultimate objective is to achieve an overall improvement in compliance levels (e.g. Australian Customs Service, 1995a and Widdowson, 1998). Similarly, in his discussion of the U.S. approach to compliance management, Sparrow (2000)

describes the U.S. Customs objective as being one of seeking to achieve a balance between facilitation and compliance. However, it is considered that this proposition fails to reflect the true intentions of the U.S. Customs Service and indeed other customs administrations, since 'compliance' represents the ultimate outcome which the organisation is striving to achieve. Consequently the result being sought by U.S. Customs would be more correctly expressed as one of achieving a balance between facilitation and control (as noted by U.S. Customs Service, 1994) rather than facilitation and compliance, as stated by Sparrow.

CONCLUSIONS FROM THE LITERATURE REVIEW

The literature demonstrates the relevance of risk management to organisational decision-making from the broadest organisational context to the very specific context of customs compliance management.

In the context of international trade compliance, risk management is widely regarded as a management tool which assists customs administrations to concentrate resources on those areas which present the highest perceived level of risk, while minimising intervention in other areas. In this regard, commentators generally conclude that the application of risk management principles provides the means of achieving an appropriate balance between trade facilitation and regulatory control.

While there are many views regarding the broad types of compliance management methods that represent an appropriate risk treatment in the context of achieving such a balance between facilitation and control, there is little commentary on the effectiveness of specific risk management strategies, and whether such strategies are contingent upon the operational setting in which they are introduced.

Through its examination of specific customs risk management strategies in the international trading environment, this study seeks to contribute to both the theory and its application by determining whether the effectiveness of risk management strategies employed by customs authorities to control and facilitate international trade is contingent upon the operational context in which the strategies are applied. A further objective is to identify the contextual factors that may influence the effectiveness of different risk management approaches in a variety of operational settings. In doing so, the study introduces a compliance management model to analyse the way in which
risk management principles are applied by customs authorities in a range of operational settings.

In this regard, it is pertinent to note that the operational context is influenced by many factors, including differing modes of transportation, the multiformity of operational facilities, the disparate characteristics and commercial practices of the trading community and the diverse range of geographic, economic, political, technological and social environments in which international trade is conducted. For example, air cargo is likely to be well documented using international standards; carried by a reputable international airline with mature IT systems; and processed in a relatively modern, physically secure environment. River cargo, on the other hand, may be poorly documented or even undocumented; carried by a single vessel operator with no IT systems; and discharged in an isolated, unpatrolled area.

This chapter discusses the methodological approach adopted in the study, including the identification of international practices, the method of data collection, reasons for selecting Hong Kong as the subject of the case study and a brief discussion of the way in which the comparative analysis was conducted.

As demonstrated in the previous chapter, there is a broad body of knowledge which identifies risk management as the means for regulatory agencies to achieve an appropriate balance between facilitation and regulatory control. This includes specific commentary relating to the use of risk management principles and techniques by customs administrations in order to achieve an appropriate balance between regulatory control and international trade facilitation. Whilst such discussion may be of some value to customs authorities in the context of formulating general principles on which to base their strategic approach to compliance management, there remains a need to explore specific ways in which the principles of risk management may be applied at an operational level in order to determine whether the effectiveness of specific strategies is dependent upon the operational setting in which they are applied. To this end, the study progresses beyond the generalist views which permeate the literature by examining specific risk management strategies in particular operational settings. This is achieved by the use of a multi-faceted case study.

In discussing the appropriateness of different forms of research strategies to suit the particular type of research being undertaken, Yin (1994) identifies a number of criteria which influence the researcher's selection. The criteria, which are summarised in Table 3.1, include the form of research question, the requirement for control over behavioural events and whether the research focuses on contemporary events. According to Yin, the use of the case study is appropriate in situations where the question to be asked is 'how?' or 'why?', where there is no requirement for control over behavioural events and where the research focuses on contemporary events. In this regard, Yin states that:

we can also identify some situations in which a specific strategy has a distinct advantage. For the *case study*, this is when...a "how" or "why" question is

being asked about a set of events over which the investigator has little or no control. (Yin, 1994, p.9).

In this study, the fundamental questions that are being asked are, 'how is regulatory compliance being managed/intended to be managed?'; 'why have the various strategies been adopted?'; and 'why are different methods of compliance management more effective than others in different situations?'. The focus of the study is on contemporary events rather than past events, and the author has no control over the events that are being examined. Prima facie, therefore, the case study is a relevant research strategy to employ in this instance. This contention is supported by Schramm:

The essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result. (Schramm, 1971 in Yin, 1994, p.12).

Strategy	Form of research question	Requires control over behavioural events?	Focuses on contemporary events?
Experiment	how, why	yes	yes
Survey	who, what, where, how many, how much	no	yes
Archival analysis	who, what, where, how many, how much	no	yes/no
History	how, why	no	no
Case study	how, why	no	yes

Table 3.1: Relevant Situations for Different Research Strategies

Source: Yin (1994)

In addition, it is pertinent to note that a key issue to be examined in the present study is whether the effectiveness of risk management strategies used by customs authorities to control and facilitate international trade is contingent upon the operational context in which the strategies are applied. In this regard, Yin contends that: You would use the case study method because you deliberately wanted to cover contextual conditions – believing that they might be highly pertinent to your phenomenon of study (Yin, 1994, p.13).

In the circumstances, it is considered that the use of the case study as a research strategy is not only relevant to the current study, but has particular advantages over alternative research strategies.

THE CASE STUDY

Hong Kong, a Special Administrative Region of the Peoples Republic of China (PRC), comprises Hong Kong Island, the Kowloon peninsula and the New Territories, which in turn includes over 200 outlying islands. A major commercial centre and international trading hub, Hong Kong is situated at the south-eastern tip of Mainland China, at the mouth of the Pearl River Delta. It shares a land border with Mainland China and is geographically located in the centre of the Asia-Pacific Rim.

Hong Kong is a founding member of the World Trade Organization (WTO) and actively participates in its activities. It has continued its separate membership of the WTO since July 1997 under the name Hong Kong, China. Similarly, Hong Kong, China is a member in its own right of the World Customs Organization (WCO) as well as several other international organisations, including the Asia-Pacific Economic Co-operation (APEC) and the Pacific Economic Co-operation Council (PECC). From mid-2000 to mid-2002, HKC&ED was appointed Vice-chair of the WCO Asia Pacific Region, an appointment which reflects the high regard in which Hong Kong is held in the international customs arena.

Hong Kong intends to become a signatory to the revised International Convention on Simplification and Harmonisation of Customs Procedures (the revised Kyoto Convention), and to that end, HKC&ED is investing a considerable amount of effort in examining its regulatory policies and practices to determine whether and to what extent they are compatible with the Convention, and to identify and progress any changes necessary to align them with the provisions of the Convention.

Hong Kong has been selected as the subject of the case study for several reasons. First and foremost, Hong Kong provides the study with an appreciable, broad-ranging insight into a diverse range of operational environments in which customs authorities are required to carry out their administrative responsibilities. These range from a very modern, highly secure, world-class international airport, through to a large number of relatively remote, unpatrolled makeshift landing sites for small vessels. Hong Kong also has the largest container port in the world, a major rail link with Mainland China and a series of controlled, high-volume road borders which are also shared with Mainland China. In each of these operational settings, the Hong Kong Customs & Excise Department (HK Customs) is in turn required to deal with a diverse group of representatives of the international trading community, including multinational air carriers, shipping lines, air express carriers, container terminal operators and freight forwarders, state-owned rail carriers, large trucking companies and a range of small to medium enterprises such as owner-drivers, riverboat operators, stevedores, forwarders, importers, exporters, warehouse operators and barge companies.

In addition to the diversity of operational settings which Hong Kong provides, another key reason for selecting Hong Kong as the subject of the case study is the significant amount of effort currently being expended by HK Customs to modernise its compliance management systems and the unprecedented rate of change which is presently being experienced in Hong Kong due to the changing shape of international trade, particular in the wake of China's accession to the World Trade Organization. A further determinant in selecting Hong Kong for the case study is the fact that, unlike most other customs administrations, customs clearance in Hong Kong is restricted to an assessment of the goods themselves and/or the manifest submitted by the relevant carrier (e.g. airline, shipping line, trucker, etc.). Most other customs administrations, however, require a trade declaration to be provided by the importer prior to customs clearance. This significant difference, which is a direct result of Hong Kong's 'free port' status, serves to reduce the variables to be considered in analysing the Hong Kong Customs approach to risk management. Finally, the relatively high level of integrity within the Hong Kong Customs & Excise Department further facilitates the use of Hong Kong as the subject of the case study, as it can be anticipated with a reasonable degree of confidence that integrity issues will not impact on the way in which official policies and procedures are applied at an operational level (see Hong Kong Chief Executive, 2003).

The operational environments in which the issues are examined are grouped according to the various types of cargo that are subject to the control of HK Customs. These include air cargo, sea cargo, river cargo, road cargo, rail cargo, multi-modal cargo and warehoused cargo. While there are many differences among the various operational environments, there are also a number of common elements that are relevant across all modes of cargo, including certain geographic, statutory, cultural and political factors.

Discussion of the various elements of the case study draws upon the comprehensive research, observations and interviews undertaken by the author between 1999 and 2002, including the extensive work undertaken by the author in his capacity of customs adviser on a series of Hong Kong Government studies, including Business & Services Promotion Unit (1999), Business & Services Promotion Unit (2000), Hong Kong Port & Maritime Board (2001) and Hong Kong Commerce & Industry Bureau (2002).

INTERNATIONAL COMPARISONS

A number of customs organisations have been selected for the purposes of providing international comparisons against which the issues identified in the case study may be analysed. The selected organisations are the United States Customs Service (USC), the Australian Customs Service (ACS), the South African Revenue Service (SARS) and the World Customs Organization (WCO).

The WCO has been selected due to its prominent role in establishing international customs policy and practice. At the time of the study the WCO, which is the only intergovernmental world-wide organisation competent in Customs matters, had 161 member countries (World Customs Organization, 2002b). A complete list of WCO members is at Appendix 1. To achieve its mission of enhancing the effectiveness and efficiency of Customs administrations, the WCO:

- Establishes, maintains, supports and promotes international instruments for the harmonization and uniform application of simplified and effective Customs systems and procedures governing the movement of commodities, people and conveyances across Customs frontiers;
- □ Reinforces Members' efforts to secure compliance with their legislation, by endeavoring to maximize the level of effectiveness of Members' co-operation

with each other and with international organizations in order to combat Customs and other transnational offences;

Assists Members in their efforts to meet the challenges of the modern business environment and adapt to changing circumstances, by promoting communication and co-operation among Members and with other international organizations, and by fostering integrity, human resource development, transparency, improvements in the management and working methods of Customs administrations and the sharing of best practices (World Customs Organization, 2002e).

The three customs administrations, i.e. USC, ACS and SARS, are all recognised internationally for their ongoing contribution to the activities of the WCO, including their active participation in the various committees of the WCO, and the active role played by each in supporting WCO initiatives in their respective regions. The reason for selecting the three administrations is to establish benchmark examples of what is generally regarded to be international customs best practice, as each of these administrations is either applying or seeking to implement compliance management strategies in accordance with the WCO guidelines. The WCO approach, which is contained in the guidelines to the revised Kyoto Convention (World Customs Organization, 1999), is discussed in Chapter 5. In this regard, the USC and ACS provide the study with examples of customs administrations that have been applying risk management principles and practices for several years, and are currently in the process of reforming their systems and procedures to better reflect the application of the WCO Guidelines (e.g. Lane, 1998b and Australian Customs Service, 2001). SARS, on the other hand, is in the process of implementing a significant reform program which, when fully implemented, will enable it to adopt a risk-based approach to compliance management. At this stage, however, a number of key initiatives are yet to be implemented, including the introduction of an effective information technology framework (e.g. South African Revenue Service, 2002b).

DATA COLLECTION

The analysis is based on data collected from customs administrations, the international trading community and other individuals and organisations such as academics and other government agencies, with an interest in the manner in which international trade is controlled and facilitated by customs authorities.

The data collected comprises a range of evidence, including official documentation, archival records, interviews and direct observations, to determine how compliance is being managed in relation to the regulatory responsibilities of customs authorities as they relate to the flow of international trade. The principal area of focus was any move away from a traditional control-oriented regime, towards an approach to compliance management that seeks to provide increased levels of trade facilitation.

While many of the documents examined during the course of the study are publicly available, a number of documents were provided in confidence due to the operationally sensitive nature of the data which they contained. For example, details of certain risk profiles, targeting techniques and operational results, which are not on the public record, were accessed during the course of the study to enable an opinion to be formed about the effectiveness of particular strategies. In compliance with the terms under which the information was provided, such data has not been identified, nor its source referenced.

Interviews were conducted over a four year period between 1999 and 2003. A total of 108 interviews were conducted with interviewees from 16 countries, with in-country interviews being conducted in 12 of these countries. A summary of interviewees is at Appendix 2. Those interviewed included:

- □ 70 customs officials, from 14 countries;
- □ 28 members of the international trading community, from 11 countries; and
- 10 other interviewees from 4 countries, comprising officials of other government agencies, academics and consultants.

The purpose of the interviews was to assist in identifying risk management strategies that serve to maintain an appropriate level of regulatory control, while at the same time providing acceptable levels of trade facilitation. What constitutes 'appropriate' and 'acceptable' is often quite subjective and dependent upon the nature and circumstances of the transaction, as well the side of the regulatory fence on which the respondent is standing. Due to the political and commercial realities inherent in dealing with regulatory authorities, and in the interests of encouraging full and frank discussion of the issues, the views and comments offered during the course of the interviews have not been attributed to specific individuals.

COMPARATIVE ANALYSIS

The comparative analysis involves an analysis of the issues identified in both the international examples and the Hong Kong case study to determine whether the effectiveness of risk management strategies is dependent upon the operational setting in which they are employed. The analysis examines each of the elements of a risk-managed style of compliance management in the context of a country's statutory framework, the administrative framework of the country's customs administration, the technological framework of both industry and government and the type of risk management framework adopted by the country's customs administration. Finally, the analysis examines the overall balance between regulatory control and trade facilitation that is being achieved by the various customs administrations, by reference to the conceptual framework, which is described in chapter 4.

4. CONCEPTUAL FRAMEWORK

This chapter examines the conceptual framework that has been adopted in this study. The framework is in two parts. The first, a *Compliance Management Matrix*, provides a construct to illustrate the relationship between the variables of trade facilitation, regulatory control and risk management. Whilst the literature implies such a relationship by pointing to the use of risk management as the means of achieving a balance between facilitation and control, no conceptual model has hitherto been developed. The second, a *Compliance Management Pyramid*, provides a conceptual framework to demonstrate the way in which the range of risk management strategies identified in the literature may be collectively applied to construct an overall regulatory program to effectively manage compliance. The study bases its subsequent analysis of the various compliance management strategies adopted by customs authorities on this two-part framework, including discussion of whether the effectiveness of such strategies is contingent on the operational context in which they are applied.

RISK MANAGEMENT AS AN ELEMENT OF COMPLIANCE MANAGEMENT

Prior to examining the construction of the conceptual framework, it is pertinent to examine existing risk management models of particular relevance to the present study, and their relationship to the concept of compliance management. In this regard, much work has been undertaken in Australia and New Zealand in an attempt to develop generic guidelines for the management of organisational risk, and the Australian/New Zealand Standard provides definitions of the terms 'risk' and 'risk management' which are constructive points of reference for the purposes of this study.

The Australian/New Zealand Standard defines *risk* as 'The chance of something happening that will have an impact upon objectives. It is measured in terms of consequences and likelihood' (Standards Australia, 1999a, p.3). This binary definition not only comprises a statement about what risk is considered to be, but also key elements of the way in which it may be estimated. The Standard's definition of

risk underscores the contention that, in organisational terms, the concept of risk relates to the potential to achieve organisational objectives. Such a view is widely held, as noted in Chapter 2. It therefore holds that, when considering risk in the context of the regulatory objectives of customs authorities, all objectives associated with the achievement of regulatory compliance are of relevance and should therefore be taken into account. In the context of international trade, customs authorities not only have an objective to ensure compliance with the law, but among other things, to provide the international trading community with an appropriate level of facilitation. Indeed, when considering the broad range of requirements and expectations of customs authorities world-wide, the two principal aims of regulatory control and trade facilitation consistently emerge as the pre-eminent and overarching organizational objectives (e.g. World Customs Organization, 1999 and Kelly, 1993). This issue is further examined later in the chapter.

The Australian/New Zealand Standard further defines risk management as 'The culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects' (Standards Australia, 1999a, p.4). An earlier version of the Standard, however, defines *risk management* as 'The systematic application of management policies, procedures and practices to the tasks of identifying, analysis, assessing, treating and monitoring risk' (Standards Australia, 1995, p.5). Whilst the latest definition may be considered to be more authoritative by the purists, it is contended that a more meaningful definition of risk management is one that makes reference to the concept of risk itself. In this regard, a definition of risk management that encompasses both versions of the Standards definitions is favoured, that is, the culture, processes and structures that are directed towards the effective management of risk. Such a definition is consistent with the current Australian/New Zealand Standard definition, which effectively regards potential opportunities and adverse effects to represent positive and negative risks to the achievement of organisational objectives (Standards Australia, 1999a).

The Australian/New Zealand Standard has also developed a generic risk management process, which provides a systematic method of managing risks to the achievement of organisational objectives. The process, depicted in Figure 4.1, is an iterative one, since the multiplicity of factors that may influence the risk management process are generally quite fluid. Such factors, for example, may include the type of risk, its

likelihood or consequence, its level of acceptability to the organisation, the appropriateness, effectiveness and efficiency of identified risk treatments, and so forth.



Figure 4.1: Australian/New Zealand Standard Risk Management Process

Under the Australian/New Zealand Standard model, the process flow initially commences with the establishment of the context in which the organisation is required to manage risks, based on the widely-held contention that any decisions about risk need to be made in the context of the environment in which they occur. This process involves an examination of relevant aspects of both the internal and external environment associated with the process or activity being examined, as well as the interdependencies of the organisation. In this regard, consideration of the internal environment may include such matters as the organisational demographics, including the number and level of staff, staff skill base, organisational structure, hours of operation, location of offices, deployment of staff, lines of control, responsibilities and accountabilities, communication and reporting mechanisms, etc. It may also include issues such as internal stakeholders, financial resources, operating procedures, systems and controls, technological capabilities and the culture of the organisation,

Source: Standards Australia (1999a)

and should include reference to relevant documents such as the corporate plan, action plans, operational instructions, codes of conduct and other policy documents. The examination of the external environment, on the other hand, will generally include such factors as external stakeholders, legislation and policy, inter-agency agreements, memoranda of understanding and the like. These in turn may include reference to the physical, commercial, economic and technological environments in which the organisation and its various stakeholders operate.

The second step in the Australian/New Zealand Standard process involves two interdependent processes of risk identification, comprising an identification of events that may occur, followed by an identification of how such events may occur. The first element serves to identify the nature of the risk in general terms, while the second element provides key information about potential causes. Sources of risk, some of which may be controllable and some of which may not, include, but are not limited to political circumstances, including government policy decisions such as the signing of bilateral and multilateral trade agreements; technological issues, such as the rapid growth and pace of globalisation and technological development in international transport; the economic circumstances of the organisation, the country and its trading partners, as well as factors which contribute to those circumstances, such as movements in exchange rates; management activities, such as the relevance, effectiveness and sustainability of policies, processes, procedures, systems and controls, including operational and resource management strategies; etc.

The Australian/New Zealand Standard refers to the combination of the subsequent two steps in the process, i.e. analysing and evaluating risks, as *risk assessment*, which encompasses the process of measuring, comparing and prioritising the various risks that are to be managed. The process of analysing risks is designed to help establish the significance of identified risks, in order to make informed decisions on what strategies and resources may be required to manage them. This is achieved by analysing the relationship between the likelihood of the risk occurring and the resultant consequences, should the risk actually occur. The result of this relationship provides an assessed level of risk for each identified risk, thereby providing a mechanism whereby the identified risks may be compared. This leads to the process of evaluating risks, which essentially involves determining which risks are acceptable and which are not, and prioritising the importance of those risks which are judged to be unacceptable. This last step is required to manage circumstances in which available resources may be insufficient to treat all identified risks.

The fifth step in the process is designed to identify the most appropriate strategies, or risk treatments, for those risks that are to be treated in some way. Such strategies may include avoiding the risk, accepting the risk, reducing the risk (e.g. reducing the likelihood, the consequence or both), transferring the risk, or accepting and retaining the residual risk. Once implemented, the iterative nature of the process becomes apparent, due to the fluid nature of risks and the fact that changing circumstances may invalidate assumptions or priorities. For examples, factors that have been assessed to represent a high risk may need to be downgraded, assumptions about likelihood and consequence may no longer remain valid, or risk treatments may not be having the intended result (see Standards Australia, 1999a and Widdowson, 2002).

In identifying potential risk treatments, regulatory agencies are able to draw upon the diverse range of compliance management strategies espoused by commentators (see Chapter 2). As noted in Chapter 2, such commentators argue that different strategies (i.e. risk treatments) are required to address 'honest mistakes' on the one hand, and 'deliberate attempts' to beat the system on the other. For example, an education campaign and/or information brochure may be sufficient to redress honest mistakes. However, if traders are intent on beating the system, all the education programs and brochures in the world will have no impact on their activities. On the contrary, such traders are likely to have a very good understanding of their obligations and entitlements. Consequently, in order to treat the risks posed by such individuals or organisations, a more rigorous, enforcement-oriented approach is likely to be required, such as targeted audits and physical checks, licence suspension or revocation, civil or criminal prosecution, etc., depending on the nature of the risk and the type of activity being managed (e.g. Ayres & Braithwaite, 1992, Sparrow, 2000, Carmody, 1998 and Osborne & Gaebler, 1992).

Sparrow (2000), whose problem-solving approach is synonymous with the concept of risk management as described in this study, presents a six-stage model for managing risks which closely reflects the Australian Standard (Standards Australia, 1999a). Sparrow's model, depicted in Figure 4.2, is based on the contention that the risks to be managed may be dealt with on a project-by-project basis, and bases the analysis of

risk on the potential impact, as opposed to the Australian Standards model, which requires an examination of both likelihood and impact at the risk analysis stage. Nevertheless, the overall approach is generally consistent with the Australian/New Zealand Standard, in that it requires an initial identification and definition of the problem, an analysis of the problem in terms of its potential impact, the evaluation of the risk in terms of measuring the impact, developing risk treatments (i.e. solutions or interventions) and implementing a process of monitoring and reviewing both the risk and risk treatments.



Figure 4.2: Sparrow's Risk Management Model

Source: Sparrow (2000)

The World Customs Organization (WCO), the key international policy-setting organisation on customs issues, has also promulgated a risk management model for use by Customs administrations. The revised International Convention on Simplification and Harmonisation of Customs Procedures (the revised Kyoto Convention), endorsed by the Council of the WCO in June 1999 (World Customs Organization, 1999), includes a fundamental requirement for contracting parties to the Convention to integrate the principles of risk management into all customs control programs. The Convention has been developed in the face of mounting pressure from

the international trading community to minimise the level of customs intervention in cargo movements and to maximise the level of trade facilitation, and is regarded by the WCO as the international 'blueprint for modern and efficient Customs procedures in the 21st century' (World Customs Organization, 2002a, p.1).

The fact that risk management represents such a key element in the Convention is due principally to the lobbying of countries such as Australia, Canada and the US, all of which have had risk management-based control regimes in place for several years. Indeed, the risk management model adopted by the WCO, which is depicted in Figure 4.3, closely reflects the Australian/New Zealand Standard for Risk Management, AS/NZS 4360 (Standards Australia, 1995) which, at the time of the development of the Convention, was the only formal risk management standard of its type.





Source: World Customs Organization (1999)

The WCO has also developed its own definition of risk: 'The potential for noncompliance with Customs laws' (WCO, 1999, Ch.6, p.8). Whilst the WCO definition is quite specific to the current area of interest, it has not been adopted for the purposes of this study as it is considered to be too limiting in its application. As previously noted, Customs administrations not only have an objective of ensuring that the international trading community complies with regulatory requirements, but also of providing the trading community with an appropriate level of facilitation. Consequently, for the purposes of the study, the Australian/New Zealand Standard's broader definition of risk has been adopted, i.e. 'The chance of something happening that will have an impact upon objectives. It is measured in terms of consequences and likelihood' (Standards Australia, 1999a, p.3). This definition is capable of addressing the potential failure to facilitate international trade as well as the potential for non-compliance with Customs laws. It is pertinent to note, however, that despite the WCO's inadequate definition of 'risk', its intention that the principles of risk management should apply to a broad range of organisational objectives is nevertheless evident (e.g. World Customs Organization, 1999).

COMPLIANCE MANAGEMENT MATRIX

As identified in Chapter 2, commentators generally conclude that the application of risk management principles provides the means of achieving an appropriate balance between trade facilitation and regulatory control. In this regard, the World Customs Organization (1999) supports the commentators in identifying the overall benefit of risk management to be the achievement of an appropriate balance between the needs and expectations of customs and those of the business community.

It is pertinent to note that the phrase 'facilitation *and* control' has been used in this context, in preference to the phrase 'facilitation *versus* control'. It is a commonly held belief among customs administrations that facilitation and control sit at opposite ends of a continuum, and it is not uncommon for the literature to examine the apparent 'paradox' of achieving both facilitation and control (e.g. Danet, 2000). It is a widely held view that, as the level of facilitation increases, so the level of control decreases. Similarly, where regulatory controls are tightened, it is commonly assumed that facilitation must suffer as a result. This is an extremely simplistic view, as it assumes that the only way in which a process may be facilitated is by loosening the reigns of control. It is considered that such a contention is fundamentally flawed, and that the concepts of facilitation and control represent two distinct variables, as depicted in the matrix in Figure 4.4.

The top left-hand quadrant in Figure 4.4 (high control, low facilitation) represents a high-control regime in which customs requirements are very stringent, but to the detriment of facilitation. This may be described as the *red tape* approach, which is often representative of a risk-averse management style. In most modern societies such an approach is likely to attract a great deal of public criticism and complaint, due to the increasing expectations of the trading community that customs intervention should be minimised.

The bottom left-hand quadrant (low control, low facilitation) depicts the approach of a customs administration which exercises little control and achieves equally little in the way of facilitation. This *crisis management* approach is one which benefits neither government nor the trading community.





The bottom right-hand quadrant (low control, high facilitation) represents an approach in which facilitation is the order of the day, but with it comes little in the way of Customs control. This *laissez fair* approach would be an appropriate method of managing compliance in Grabosky's (1997) idyllic world in which the regulatee complies fully without any threat or inducement from government, bearing in mind that such an environment assumes no risk of non-compliance.

Finally, the top right-hand quadrant (high control, high facilitation) represents a *balanced approach* to both regulatory control and trade facilitation, which results in high levels of both. This approach to compliance management maximises the benefits to both government and the international trading community.

It should be noted that, as the matrix is not made up of finite points, particular compliance strategies may only be described in relative terms as regards facilitation and control. Similarly, the descriptors applied to the four quadrants are broad in their application.

As previously noted, the literature concludes that an appropriate balance between facilitation and control is achieved through the application of the principles of risk management. In advancing this theory it may be argued that, as the use of risk management becomes more effective (e.g. more systematic and sophisticated), an appropriate balance between facilitation and control becomes more achievable. Consequently, while the *balanced approach* of the facilitation/control matrix may be achieved through the effective use of risk management, total *crisis management* (i.e. zero facilitation, zero control) essentially represents a compliance management approach that is devoid of risk management.

Similarly, it may be argued that any movement away from a state of total crisis management implies the existence of some form of risk management. For example, recognising the definition of 'risk' as 'the chance of something happening that will have an impact upon objectives', a regulatory strategy which achieves some degree of control, however small, essentially represents a method of treating potential non-compliance with customs laws. Equally, a strategy which achieves some degree of facilitation essentially represents a method of treating the potential failure to facilitate trade. This relationship is depicted in the three-dimensional Compliance Management Matrix at Figure 4.5.





Whilst the study does not specifically set out to validate the theoretical framework depicted in Figure 4.5, the framework proves useful in providing a conceptualisation of the interrelationship between facilitation, regulatory control and risk management, which permeates the literature, and provides a practical construct against which the international trends and findings of the case study may be analysed.

This graphic representation of the interrelationships also serves to highlight the apparent limitations of the WCO definition of risk as discussed earlier in this chapter, i.e. 'the potential for non-compliance with Customs laws', which fails to pay heed to the facilitation of international trade (and travel), which represents the other major objective of customs authorities. If the WCO definition were to be adopted, it would invalidate the general findings of the literature, including that of the WCO itself, which concludes that the application of risk management principles provides the means of achieving an appropriate balance between trade facilitation and regulatory control. In this regard, if the only perceived risk was that of non-compliance with customs laws, the perfect solution for customs administrations would be to invoke a 'red tape', 'gatekeeper' approach and ignore any likely impact that such a strategy may have on the international trading community.

COMPLIANCE MANAGEMENT PYRAMID

Ayres & Braithwaite (1992) present a model known as the 'Enforcement Pyramid' (refer Figure 4.6), which illustrates a spectrum of compliance management options ranging from persuasion to licence revocation. The purpose of their analysis is to determine the method of sanction or 'punishment' that will achieve the highest level of improvement in compliance levels. Ayres & Braithwaite contend that the softer approaches, shown at the base of the pyramid, are likely to be employed most frequently by regulatory authorities and that, as the severity of the sanction increases through the higher levels of the pyramid, the incidence of usage is likely to decrease.





Source: Ayres & Braithwaite (1992)

Ayres & Braithwaite further argue that, as the enforcement strategy available to the regulatory agency at the peak of the pyramid increases in its severity, the agency is likely to be more effective in achieving compliance and is less likely to be required to resort to tough enforcement actions. In other words, as the size of the stick increases, the need to use it decreases. They further contend that self-regulation (or self-assessment) is a legitimate compliance management strategy for regulators to employ in situations where certain members of the regulated community are deemed to be relatively trustworthy, i.e. present a relatively low risk of non-compliance. Under such an arrangement, these parties are permitted to undertake their own assessment of

their compliance with the relevant regulations, on the understanding that such assessment may be subjected to some form of government verification.



Figure 4.7: Risk-based Compliance Management Pyramid

The *Risk-based Compliance Management Pyramid*, (refer Figure 4.7) represents an extension of the model developed by Ayres & Braithwaite. Whilst the Ayres & Braithwaite model is designed to illustrate forms of sanction or 'punishment' that may be used to reduce levels of non-compliance, i.e. to achieve improvements in levels of compliance in situations where non-compliance is identified, the Risk-based Compliance Management Pyramid expands on the concept through the inclusion of compliance management initiatives other than enforcement strategies. In this way, it provides a logical framework for demonstrating the way in which the types of risk management strategies identified in the literature, including non-enforcement strategies identified by Ayres & Braithwaite (1992), such as self-assessment, may be used to manage compliance.

Such strategies are summarised in Table 4.1, which compares key elements of a riskmanaged style of compliance management (e.g. Sparrow, 2000) with the more traditional 'gatekeeper' style (e.g. Hayes, 1993). The various elements can be broadly grouped within four main categories, comprising a country's legislative framework, the administrative framework of a country's customs organisation, the type of risk management framework adopted by a country's customs organisation and the available technological framework. Collectively, the four categories are considered to represent key determinants of the manner in which the movement of cargo may be expedited across a country's borders, and the way in which government control may be exercised over such cargo.

The legislative framework represents the fundamental starting point for any regulatory regime, since the primary role of any customs authority is to ensure compliance with the law. In terms of the framework itself, the respective characteristics of a legislative base which supports the traditional 'gatekeeper' and risk management styles of compliance management must include provisions that provide the legislative basis for the achievement of the range of administrative and risk management strategies identified in Table 4.1. For example, an appropriate basis in law must exist to enable a customs authority to break the nexus between its physical control over internationally traded goods and the revenue liability (i.e. customs duty and other taxes) that such goods may attract. This does not necessarily imply, however, that

	Traditional 'Gatekeeper' Style	\leftrightarrow	Risk Management Style
Legislative Framework	Legislative base provides for a 'one size fits all' approach to compliance management	\leftrightarrow	Legislative base provides for flexibility and tailored solutions to enable relevant risk management & administrative strategies to be implemented
	Onus for achieving regulatory compliance is placed solely on the trading community	\leftrightarrow	Legislative base recognises responsibilities for both government & the trading community in achieving regulatory compliance
	Sanctions for non-compliers	\leftrightarrow	Sanctions for non-compliers
Administrative Framework	'One size fits all' compliance strategy	\leftrightarrow	Strategy dependent upon level of risk
	Control focus	\leftrightarrow	Balance between regulatory control and trade facilitation
	Enforcement focus	\leftrightarrow	Dual enforcement/client service focus
	Unilateral approach	\leftrightarrow	Consultative, cooperative approach
	Focus on assessing the veracity of transactions	\leftrightarrow	Focus on assessing the integrity of trader systems and procedures
	Inflexible procedures	\leftrightarrow	Administrative discretion
	Focus on real-time intervention and compliance assessment	\leftrightarrow	Increased focus on post-transaction compliance assessment
	Lack of/ineffective appeal mechanisms	\leftrightarrow	Effective appeal mechanisms
Risk Management Framework	Indiscriminate intervention or 100% check	\leftrightarrow	Focus on high-risk areas, with minimal intervention in low risk areas
	Physical control focus	\leftrightarrow	Information management focus
	Focus on identifying non-compliance	\leftrightarrow	Focus on identifying both compliance and non-compliance
	Post-arrival import clearance	\leftrightarrow	Pre-arrival import clearance
	Physical control maintained pending revenue payment	\leftrightarrow	Breaks nexus between physical control and revenue liability
	No special benefits for recognised compliers	\leftrightarrow	Rewards for recognised compliers

Table 4.1: Compliance Management Styles

Enablers

IT Framework	Legislative provisions provide the trading community with electronic as well as paper-based reporting, storage and authentication options. Such provisions should enable regulators to rely on commercially-generated data to the greatest extent possible			
	Appropriate communications and information technology infrastructure to provide for automated processing and clearance arrangements. Regulators should seek to achieve maximum integration with commercial systems			
	Consultative business process re-engineering prior to automation			

such a differentiation must be explicitly addressed in the relevant statutory provisions. For example, if the legislation itself is silent on the relationship between customs control over cargo and revenue liability, sufficient scope is likely to exist for administratively flexible solutions to be implemented.

Supported by the relevant legislative provisions, the various elements of the administrative and risk management frameworks employed by customs authorities essentially reflect the underlying style of compliance management being pursued by such agencies, with an increasing manifestation of the adoption of risk management principles as an authority moves away from the traditional, risk-averse 'gatekeeper' style of compliance management. The available technological framework essentially represents an enabler which, while not considered essential to the achievement of a risk management style, serves to enhance an administration's ability to adopt such a style.

In developing the Risk-based Compliance Management Pyramid (see Figure 4.7), an attempt has been made to provide a model which links potential risk managementbased strategies with a structured approach to compliance management. Fundamental to this is the need to provide the entire trading community with the ability to comply with regulatory requirements. This involves establishing an effective *Legislative Base* and an appropriate range of *Client Service* strategies. Having achieved that, the requirement is then to identify both compliance and non-compliance through *Compliance Assessment*, and to implement appropriate responses to those findings through *Enforcement or Recognition*. There are also a number of enablers that facilitate a Customs administration's progression away from the traditional gatekeeper approach, towards a compliance management regime that is based on the principles of risk management. These enablers, shown in Table 4.1, relate to the administration's information technology infrastructure, including its communications infrastructure, and the requisite statutory base to provide for its use.

Consequently, the Risk-based Compliance Management Pyramid, depicted in Figure 4.7, draws on the elements of a risk management style of compliance management identified in Table 4.1, having as its base the relevant legislative provisions for which the particular customs organisation has administrative responsibility. The second level of the pyramid comprises the various 'client service' activities which form an

integral part of a risk-managed style of compliance management, such as education, technical assistance and guidance (e.g. Carmody, 1988). At the third level of the pyramid, the elements of compliance identification come into play, including risk-based physical and documentary checks, audits and investigations (e.g. Sparrow, 1994; Shaver, 1997; Lane, 1998; and Banks, 1999).

At the peak of the pyramid are the strategies that come into play for both the 'identified non-compliers' and 'recognised compliers'. Strategies for the identified non-compliers include the enforcement strategies identified in the Ayres & Braithwaite (1992) Enforcement Pyramid, whilst strategies for the recognised compliers include increased levels of self-assessment, reduced regulatory scrutiny, less onerous reporting requirements, periodic payment arrangements and increased levels of facilitation (e.g. Australian Customs Service, 1995 & 1997; Ayres & Braithwaite (1992); Sparrow, 2000; and Widdowson, 1998). In contrast, Figure 4.8 depicts the basic elements of a gatekeeper style of compliance management.





In this chapter, a range of international initiatives are examined and analysed in the context of the conceptual framework described in the previous chapter. The chapter includes an analysis of the WCO's international blueprint for customs administration, together with an examination of a series of international customs compliance management strategies that broadly reflect the WCO blueprint. The international strategies are those implemented by the Customs administrations of the United States, Australia and South Africa, the selection of which is discussed in Chapter 3. In subsequent chapters, the study proceeds to examine the compliance management strategies employed by Hong Kong, which is the subject of the case study. By reference to the compliance management styles examined in the previous chapter (refer Table 4.1), the various international strategies are examined in the country's statutory framework, the administrative framework of the country's customs administration, the technological framework of both industry and government and the type of risk management framework adopted by the country's customs administration.

CUSTOMS RESPONSIBILITIES

Customs administrations around the world are responsible for managing a broad range of risks as they seek to fulfil their responsibilities in areas such as revenue collection, the administration of trade policies and border controls, community protection and the facilitation of trade. Customs organisations are also generally required to manage risks on behalf of other government departments and agencies with policy responsibility for areas such as health, immigration, agriculture, trade, environment and trade statistics. This is usually achieved through the implementation of a diverse range of agreed control regimes, with customs having responsibility for the administration and enforcement of relevant regulatory requirements at the point of importation and exportation. These 'border control' responsibilities stem from the more traditional customs role of collecting duties on internationally traded commodities at the point of importation and exportation. It has been suggested that import and export duties were first introduced by the Romans (e.g. Smith, 1980) and no doubt the 'customs officials' of the day had a responsibility to ensure that the right amount of duties were collected and that wouldbe smugglers were brought to account. On the other side of the counter would have been many honest traders who would render to Caesar that which was Caesar's and some not so honest traders who would seek to render as little as possible. It is therefore probable that the Romans faced the same types of challenges that are being faced by customs administrations around the world today - customs officials seeking to ensure that the law is upheld; traders seeking uninhibited passage of their cargoes; and honest traders seeking recognition of their good track record of compliance.

What has changed, and changed dramatically, is the trading environment – the manner in which goods are carried and traded, the speed of such transactions and the sheer volume of goods that are traded around the globe. In the past few decades there have been a number of significant changes in global trading practices and customs administrations around the world have been required to continually adapt their methods of operation in an effort to maintain their effectiveness and relevance (e.g. Hayes, 1993 and World Customs Organization, 1999 & 2002a). For example, the emergence of wide-bodied aircraft, shipping containers, e-commerce and the increasing complexities of international trade agreements have all impacted on the way in which customs administrations have fulfilled their responsibilities, and customs administrations world-wide have seen a dramatic increase in workload across all areas of activity, fuelled by the technological advances that have revolutionised trade and transport.

Nevertheless, the basic elements of customs administration appear to remain essentially the same - government officials are seeking to enforce the law and traders are seeking to minimise government intervention. In examining the issues of trade facilitation and regulatory control, it is important to recognise these differing needs and expectations of customs and the business community. On the one hand, traders are looking for the simplest, quickest, cheapest and most reliable way of getting goods into and out of the country. They are looking for certainty, clarity, flexibility and timeliness in their dealings with customs. They are also looking for the most costeffective ways of doing business. Customs authorities, on the other hand, are seeking to prevent smuggling, detect contraband and ensure compliance with revenue, licensing and other legal requirements; and they too are looking for the most costeffective ways of doing business. Consequently, traders are driven by commercial imperatives, while customs organisations are primarily driven by the law. What customs administrations are now seeking to achieve is an appropriate balance between trade facilitation and regulatory control (World Customs Organization 1999).

Achieving such a balance can provide significant flow-on benefits for national economies, and the issue of trade facilitation has consequently been added to the WTO agenda, with many countries now re-assessing their legislative and administrative approach to the regulation of international trade (see World Trade Organization, 1996). Following extensive consultation with commerce and industry, the WTO has identified the following broad areas of concern at the international level:

- excessive government documentation requirements
- □ lack of automation and insignificant use of information-technology
- □ lack of transparency; unclear and unspecified import and export requirements
- □ inadequate customs procedures; particularly audit-based controls and riskassessment techniques
- lack of co-operation and modernisation amongst customs and other government agencies, which impedes efforts to deal effectively with increased trade flows (World Trade Organization, 1998).

The concerns identified by the WTO serve to highlight a number of potential weaknesses in the way in which governments, and more specifically customs administrations, approach the task of monitoring and regulating international trade. According to the World Trade Organization (2002), the costs of import tariffs are often exceeded by the losses incurred by the international trading community as a result of slow clearance procedures, opaque and unnecessary documentary requirements and lack of automated procedural requirements.

The nature of the issues identified by the WTO may be considered to fall into a number of broad categories, including statutory requirements (e.g. government requirements, transparent regulatory provisions, clearly specified import and export requirements); administrative requirements (e.g. documentation requirements, clear administrative procedures, audit-based controls and administrative cooperation);

technological capabilities (e.g. automation and use of information technology); and risk management practices (e.g. audit-based controls and risk assessment techniques). As such, the issues identified by the WTO support the contention that key determinants of the manner in which the movement of cargo may be expedited across a country's borders, and the way in which government control may be exercised over such cargo, include:

- □ a country's statutory framework
- □ the administrative framework of a country's customs organisation
- □ the technological framework of both industry and government
- □ the type of risk management framework adopted by a country's customs organisation.

These elements reflect the principal categories of the compliance management styles examined in the previous chapter (refer Table 4.1). They also form the basis of the study's structural approach to examining the way in which the international customs community has approached the identified need to modernise customs policies and procedures, in order to provide traders with an appropriate degree of facilitation, while at the same time maintaining acceptable levels of regulatory control. Each of the four elements is separately addressed in later sections of this chapter.

In recent years these issues have been high on the agenda of the WCO, an independent intergovernmental organisation based in Brussels, which is the recognised international policy-setting organisation on customs issues. At the time of writing, membership of the WCO comprised the customs administrations of 161 countries, with responsibility for processing in excess of 95 per cent of world trade (World Customs Organization 2002b). A list of WCO membership is at Appendix 1.

In June 1999 the Council of the WCO approved the revised International Convention on the Simplification and Harmonization of Customs Procedures - the revised Kyoto Convention. The revised Kyoto Convention has been developed in the face of mounting pressure from the international trading community to minimise the level of customs intervention in cargo movements and to maximise the level of trade facilitation. According to the WCO, it represents the international blueprint for prudent, innovative customs management, and is designed to maintain the relevance of customs procedures at a time when technological developments are revolutionising the world of international trade and travel (World Customs Organization, 2002a). A summary of the Convention's key provisions is presented at Appendix 3.

Essentially, the revised Kyoto Convention is intended to promote the achievement of a highly facilitative international travel and trading environment while maintaining appropriate levels of regulatory control across all member administrations. It is designed to provide the underlying conditions and instruments to help the contracting parties to achieve a modern customs administration and to make a major contribution to the facilitation of international trade by:

- eliminating divergence between the customs procedures and practices of contracting parties that can hamper international trade and other international exchanges
- meeting the needs of both international trade and customs authorities for facilitation, simplification and harmonisation of customs procedures and practices
- ensuring appropriate standards of customs control
- enabling customs authorities to respond to major changes in business and administrative methods and techniques
- ensuring that the core principles for simplification and harmonisation are made obligatory on contracting parties
- providing customs authorities with efficient procedures, supported by appropriate and effective control methods (World Customs Organization, 1999).

The development of the revised Kyoto Convention has incorporated important concepts of contemporary compliance management. These include the application of new technology, the implementation of new philosophies on customs control and the willingness of private sector partners to engage with customs authorities in mutually beneficial alliances. Central to the new governing principles of the revised Kyoto Convention is a required commitment by customs administrations to provide transparency and predictability for all those involved in aspects of international trade. In addition, administrations are required to:

□ commit to adopt the use of risk management techniques

- co-operate with other relevant authorities and trade communities
- □ maximise the use of information technology
- □ implement appropriate international standards.

In relation to the concept of customs control, the WCO states:

The principle of Customs control is the proper application of Customs laws and compliance with other legal and regulatory requirements, with maximum facilitation of international trade and travel.

Customs controls should therefore be kept to the minimum necessary to meet the main objectives and should be carried out on a selective basis using risk management techniques to the greatest extent possible.

Application of the principle of Customs controls will allow Customs administrations to:

- focus on high-risk areas and therefore ensure more effective use of available resources,
- □ increase ability to detect offences and non-compliant traders and travellers,
- offer compliant traders and travellers greater facilitation, and
- expedite trade and travel (World Customs Organization, 1999, Ch.6, p.9).

What the WCO is essentially attempting to achieve through the provisions of the revised Kyoto Convention is a general adoption of a risk-managed style of regulatory compliance management by its member administrations. In this regard, the numerous standards of the Convention (refer Appendix 3) are fully consistent with the Risk-Based Compliance Management Pyramid, as discussed in the previous chapter. For example, the client service elements of the pyramid are reflected in the Convention's General Principles, which include a requirement that customs administrations establish consultative, cooperative relationships with the international trading community in order to achieve effective operating methods that comply with relevant regulatory requirements (see World Customs Organization, 1999, Standard 1.3). Similarly, whilst requiring the trader (or agent) to be held responsible for the accuracy

of a goods declaration (Standard 3.8), the revised Kyoto Convention requires that all relevant information concerning customs law is readily available to the public (Standard 9.1), that information relating to specific matters raised by industry should be addressed quickly and accurately (Standard 9.4) and that written decisions on particular matters should be provided to industry when requested (Standard 9.8). The right of appeal is also addressed extensively in Chapter 10 of the revised Kyoto Convention, including a requirement that anyone who is affected by a decision or omission of a customs authority should have the right of appeal (Standard 10.2).

Equally consistent with the conceptual model are the revised Kyoto Convention's standards relating to a range of matters of relevance to national legislation, administrative procedures, the use of risk management techniques and the application of information technology, which are examined in later sections of this chapter.

A recent commentator on the current efforts to modernise the compliance strategies of customs administrations has, however, questioned the universal viability of the revised Kyoto Convention's initiatives. McGrath argues:

Although international instruments such as the Kyoto Convention on Customs procedures do address specifics of customs clearance practices, that treaty's influence has been diminished by the perception that it is a decree imposed by the big players on smaller nations. Some observers, for example, have criticized the Kyoto Convention's focus on automation, modern risk assessment and post-entry auditing as a luxury that is beyond the resources and capabilities of many less-developed countries (McGrath, 2002, p.1).

Since the WCO, along with many customs administrations, views automation and post-entry auditing as integral parts of an effective risk management regime, a key question to be addressed is whether the effectiveness of certain risk management strategies (e.g. post-entry audit and automated screening and clearance) is contingent upon the context in which they are applied. The resolution of this issue is the primary objective of the current study.

The study now proceeds to examine the various international strategies in the context of a country's statutory framework, the administrative framework of the country's Customs administration, the technological framework of both industry and government and the type of risk management framework adopted by the country's Customs administration.

STATUTORY FRAMEWORK

World Customs Organization

The Risk-based Compliance Management Pyramid (refer Figure 4.7) identifies an effective legislative base as the foundation for any compliance management regime, based on the premise that trader compliance is fundamentally one of compliance with a country's international trade laws and associated legislative provisions, which dictate the circumstances relating to how, or indeed whether, international cargo may cross the country's borders, and the manner in which these movements must be reported. Such provisions include any licensing, authorisation and permit requirements relating to traders and service providers, as well as the goods themselves, including any revenue-related requirements such as import duties and other taxes. In this context, it is important to recognise that effective implementation of the ideals of the WCO and WTO requires statutory support at a national level. Consequently, a fundamental principle of the revised Kyoto Convention is that all requirements and conditions relating to customs formalities should be specified in national legislation:

The conditions to be fulfilled and Customs formalities to be accomplished for procedures and practices in this Annex and in the Specific Annexes shall be specified in national legislation and shall be as simple as possible (World Customs Organization, 1999, Standard 1.2).

While all government requirements relating to international trade must be based in national law, those which are designed to fulfil a country's bilateral or multilateral trading obligations have their origins in international agreements, treaties and conventions, including those promoted by the WTO and WCO. Other legal requirements, designed to meet national public health, safety and internal security needs, are generally country-specific in their application. Combined, the various statutory provisions relating to international trade can have a significant impact on the overall operation and efficiency of the international supply chain.

As customs administrations are acting on behalf of their respective governments, it is hardly surprising that their needs and expectations have generally represented the mould in which statutory regimes have traditionally been cast. As such, until recently, stringent control regimes have generally been the order of the day. However, the situation has changed quite markedly in the past couple of decades, thanks to the emergence of the global economy and with it dramatic changes in social expectations and increasing levels of public sector accountability (e.g. Shaver, 1998).

In addition, it appears that there is a growing recognition of the fact that, despite their differing needs and expectations, customs authorities and the business community coexist in the same operating environment, both are dealing with common entities and to a great extent the two are interdependent, not independent. Indeed, changes to the international trading environment are occurring at such a dramatic rate that customs administrations are now developing statutory provisions with such interdependence in mind.

This concept of interdependence, which is reflected in the consultative and cooperative elements of the Risk-based Compliance Management Pyramid, is manifested in a general principle of the revised Kyoto Convention, which has application to all aspects of customs requirements, including the underlying statutory provisions:

The Customs shall institute and maintain formal consultative relationships with the trade to increase co-operation and facilitate participation in establishing the most effective methods of working commensurate with national provisions and international agreements (World Customs Organization, 1999, Standard 1.3).

The statutory provisions of those countries that have implemented the provisions of the revised Kyoto Convention, or are in the process of doing so, generally incorporate this concept of interdependence and reflect the WCO's expectation that customs authorities will work with the international trading industry in achieving mutually acceptable outcomes. This in turn reflects a common theme of the literature, that the achievement of regulatory compliance should be regarded as a joint responsibility of both government and the trading community (e.g. Lane, 1998a). Such an approach represents a significant shift in thinking from the traditional 'gatekeeper' style, which
places the responsibility for ensuring compliance with regulatory requirements squarely on the shoulders of the trading community. As such, the WCO approach is representative of the risk-managed style of compliance management, which identifies as a key element of a risk-managed approach, the introduction of legislative provisions that identify responsibilities for both government and the trading community in achieving regulatory compliance.

Finally, the revised Kyoto Convention recognises the increasing reliance placed upon information technology systems to achieve effective facilitation and control, and the need for customs authorities to provide the trading community with electronic as well as paper-based processing options:

New or revised national legislation shall provide for:

- electronic commerce methods as an alternative to paper-based documentary requirements;
- electronic as well as paper-based authentication methods;
- the right of the Customs to retain information for their own use and, as appropriate, to exchange such information with other Customs administrations and all other legally approved parties by means of electronic commerce techniques (World Customs Organization, 1999, Standard 7.4).

Within the conceptual framework, initiatives which serve to enhance a customs administration's information technology framework are regarded as enablers to facilitate the achievement of a risk-managed style of regulatory compliance management. In this context, expanding the scope of customs legislation to provide the international trading community with electronic options for communicating, storing and authenticating trade-related data is considered to represent one such enabler.

United States

In 1993 the U.S. Congress passed the North American Free Trade Agreement Implementation Act, also know as the Customs Modernization Act, which was designed (among other things) to simplify and modernise the country's customs laws. As well as providing for the electronic transmission and processing of trade documents for customs purposes (an enabler to the achievement of a risk-managed style of compliance management – see Table 4.1), the Act introduced two significant concepts into the statutory base of customs administration. The first of these is the concept of 'informed compliance', which seeks to achieve high levels of voluntary compliance with customs laws and regulations from the international trading community, based on the premise that such compliance can only be achieved if traders are fully informed of their entitlements and responsibilities. This concept forms the basis of the 'client service' elements of the Risk-based Compliance Management Pyramid, which include such strategies as industry consultation, education, awareness, technical assistance, advice and formal rulings. The client service undertones of the U.S. Senate Finance Committee, which states that the notion of informed compliance is:

premised on the belief that importers have a right to be informed about customs rules and regulations, as well as interpretative rulings, and to expect certainty that the Customs Service will not unilaterally change the rules without providing importers proper notice and an opportunity for comment (US Senate Finance Committee, 1993, Title VI – Customs Modernization).

The second concept introduced by the Customs Modernization Act is that of a 'shared responsibility'. In this regard, the Customs Modernization Act spells out the requirement that USC must provide traders with high quality information about their rights and responsibilities, whilst traders must exercise reasonable care in preparing customs documentation about imports and exports in order to ensure that their legal obligations are properly met. This standpoint supports the contention that, under a risk-managed style, there must be a recognition that the achievement of high levels of compliance is dependent upon both customs authorities and the trading community meeting their respective responsibilities. The introduction of such provisions within the Customs Modernization Act provides the necessary legislative base for USC to formally introduce elements of client service as a legitimate part of their overall compliance management regime, which in turn enables USC to work cooperatively with traders to assist them in achieving high levels of compliance. This aspect of the US approach is examined later in this chapter.

Under the provisions of the Customs Modernization Act, those companies that are able to demonstrate a good record of compliance with customs requirements may have access to a range of benefits, including reduced levels of inspection, less stringent documentary requirements and the appointment of a customs 'account manager' to provide a single point of contact on all their dealings with USC. Such flexibility in administrative approach recognises that different compliance management strategies may be appropriate for different members of the trading community depending on their level of compliance, and it is contended that such regulatory flexibility must be incorporated into the relevant statutory base itself, in order to formalise the legislators' expectation that customs officials will adopt different approaches to regulatory compliance depending on the particular circumstances. Such legislative imprimatur provides the necessary foundation on which administrative and risk management practices may be built (refer Figure 4.7).

According to the U.S. House Ways and Means Committee, the provisions of the Customs Modernization Act serve to improve compliance with customs laws and provide importers with safeguards, uniformity and due process rights. Five years after its introduction, the same committee stated:

Through the passage of this Act, the Committee provided the Customs Service with the necessary tools to successfully redesign its processes for the 21st Century. Specifically, the Act allowed Customs to develop a fully-automated commercial environment, redesign and restructure its core business-related activities, and reevaluate the culture and work practices of its employees (US House Ways and Means Committee, 1998, p.8).

The significance of the changes brought about by the Act are summed up by Linet, who states that:

The Customs Modernization Act was described by one of its primary architects as 'basic surgery'. It is considered the most sweeping regulatory reform legislation since the U.S. Customs Service was organized in 1789 (Linet, 1997, p.2).

It is considered that such 'basic surgery' has served to facilitate the transformation of USC into an administration whose compliance management style is now aligned with the risk-managed style described in the previous chapter (refer Table 4.1).

Australia

Similarly, Australia has recently developed legislation that recognises the respective responsibilities of customs and the business community. In July 2001, a suite of legislation known as the Customs Trade Modernisation legislation became law, the principal element of the legislative package being the Customs Legislation Amendment and Repeal (International Trade Modernisation) Act. The legislation provides the Australian Customs Service (ACS) with a statutory basis for the implementation of a modern approach to compliance management for international cargo and provides for the introduction of a flexible electronic business environment for customs clearance of imports and exports.

A key element of the new legislation is the Accredited Client Program, a set of statutory provisions which allow certain traders to be provided with tailored methods of demonstrating compliance with their statutory obligations. According to the ACS, 'The Accredited Client Program is based on the philosophy that 'one size doesn't fit all' - some traders import or export more regularly than others, some have better systems for providing information and making revenue payments, and others, because of the goods they deal in, pose a lesser risk to the Australian community' (Australian Customs Service, 2001, p.20).

Under the Accredited Client Program provisions, traders with appropriate internal systems and procedures and a demonstrated high level of compliance are entitled to special privileges relating to customs clearance. Such privileges include minimal customs intervention in their commercial activities and the ability to take immediate delivery of their shipments by providing customs with basic details about the goods at the time of importation, with other required information being submitted on a periodic basis. In this regard, the new legislative provisions provide the foundation for implementing compliance management strategies that are tailored to reflect the perceived level of risk posed by individual traders.

Whilst a reduced level of intervention by customs authorities is considered to be achievable without the express support of specific legislative provisions, the ability to provide incentives or 'rewards' to compliant traders along the lines of those provided for under the Australian Accredited Client Program is considered to be totally dependent upon such statutory support. As such, those administrations operating under a traditional 'gatekeeper' legislative framework are limited in their ability to extend the types of facilitative arrangements envisaged by the new Australian provisions. For example, the types of rewards identified in the Risk-based Compliance Management Pyramid (refer Figure 4.7) such as periodic payment arrangements, increased levels of self-assessment and less onerous regulatory reporting requirements are considered to be unachievable without effective legislative support. In the same way, the penalties envisaged by the model are equally unachievable in the absence of appropriate underpinning statutory provisions.

It is pertinent to note that the details of the Accredited Client Program were determined following extensive consultation with the international trading community (e.g. Australian Customs Service, 1997 and McGrath, 2001). Such a strategy typifies the type of consultative, cooperative approach identified in Table 4.1 that is indicative of a risk-managed style of regulatory compliance.

According to Ellison (2001), the new statutory provisions represent one of the most significant reforms for the ACS since its inception. Ellison argues that the new provisions are designed to modernise the ACS approach to compliance management in order to improve both trade facilitation and the timely detection and control. In describing the new statutory arrangements, Ellison comments that the provisions are:

about the creation of an environment that is intended to reduce the cost of communication and to provide choice in how that communication occurs. It establishes an environment that relies on commercial information rather than something specifically created for government ... their objectives are to intercept high risk cargo while allowing low risk cargo to flow unimpeded...this proposed legislation supports good compliance through initiatives such as the accredited client program and associated administrative mechanisms. At the other end of the scale, it also provides necessary censure for noncompliance through strict liability offences. This proposed legislation

provides for a new framework for cargo management - one which allows for the maximum use of technology, more efficient deployment of Customs resources and more rapid cargo clearance times (Ellison, 2001, pp.1, 2).

South Africa

The South African Revenue Service (SARS) has also recently amended its Customs Act and Rules to incorporate the concepts of shared responsibility and the recognition and reward of those members of the trading community who are able to establish and maintain high levels of compliance with customs regulatory requirements. In particular, new statutory provisions have been introduced into the Customs and Excise Act to allow the Commissioner of Customs to confer accredited client status on certain members of the trading community, and to enter into individual agreements with such clients. The concept of providing tailored compliance arrangements for individual traders reflects the 'one size doesn't fit all' approach espoused by the ACS, and represents a further example of a customs authority that is now moving away from the traditional 'gatekeeper' style of customs legislation in which general provisions are applied equally to all importers or exporters.

The rules for accrediting clients, which were introduced in March 2002, identify specific responsibilities for both parties, with accredited clients being required to demonstrate an appropriate record of compliance with customs laws and procedures (generally for a minimum period of 5 years prior to being accredited) and to maintain high quality internal operational processes and computer systems to achieve full compliance with their legal obligations. This focus on the integrity of industry systems and procedures represents another fundamental shift towards the type of risk-managed style of regulatory compliance management discussed in the previous chapter. Under a 'gatekeeper' style, the focus of compliance management is on the assessment of individual transactions at the time of importation or exportation, with little regard for the overall level of compliance exhibited by particular traders. A broader post-transaction focus on a trader's underlying systems and procedures, which forms an integral part of the Risk-based Compliance Management Pyramid (see Figure 4.7), represents a significantly different method of assessing and managing compliance. This concept is further examined in later sections of this chapter.

In order to meet its obligations under the new legislative provisions, SARS is required to maintain appropriate processes and procedures to facilitate legitimate trade, including simplified processing procedures, minimum customs intervention and deferred duty payment arrangements. Such explicit stipulation of customs responsibilities in statutory provisions represents a radical departure from traditional legislative practices, which tend to remain silent on government responsibilities, whilst articulating the regulatory requirements of the trading community. As argued in Chapter 4, however, a risk-based style of compliance management requires a legislative base which recognises the respective responsibilities of both government and the trading community in achieving regulatory compliance.

The legislative reform program in South Africa forms part of a broader transformation and modernisation program known as 'Siyakha', meaning 'we are building', through which SARS aims to become 'an ideal Customs Administration through the effective execution of its duties relating to cargo control, passenger management, public protection, trade facilitation, provision of accurate trade statistics and the management of international and regional trade agreements' (South African Revenue Service, 2002a). Key elements of the reform program include:

- □ automating and simplifying procedures
- □ increasing the use of risk management
- □ reforming business rules
- accrediting clients (i.e. importers, exporters, clearing agents, road hauliers and warehouse operators)
- establishing memoranda of understanding with industry and other stakeholders such as relevant government departments.

The reform program, which is still continuing, impacts on the people, processes, systems, legislation and culture of the organisation, and appears to be fundamentally changing the way in which customs officials in South Africa are approaching their compliance management responsibilities, by moving from a 'gatekeeper' style of compliance management to one which is based on the principles of risk management.

ADMINISTRATIVE FRAMEWORK

World Customs Organization

Whilst government agencies have a fundamental responsibility to ensure that statutory requirements are met, the manner in which this is achieved is often quite flexible. For example, the law may require that certain goods may only be imported under licence. However, the manner in which the licensing arrangements are implemented by the administering agency (usually the country's customs authority) is often open to administrative discretion. A licence may, for example, be issued on a shipment-by-shipment basis, a periodic basis (e.g. six or twelve months), or issued for an indefinite period provided certain conditions are met. Administrative decisions of this nature may also apply to such issues as

- □ physical control over goods
- □ physical movement of goods
- □ information requirements
- □ timing and method of reporting
- □ timing and form of revenue collection.

The distinction between statutory and administrative requirements is an important one, particularly in the context of organisational flexibility and change management. This is because the potential for change, the processes and stakeholders involved in effecting change and the timeframe in which change may be achieved differ markedly depending on whether the requirement is for a change to statutory provisions or administrative procedures.

The WCO's revised Kyoto Convention includes a number of standards relating to the way in which customs authorities should carry out their compliance management responsibilities in an administrative sense. Key standards include the following:

Customs control shall be limited to that necessary to ensure compliance with the Customs law

(World Customs Organization, 1999, Standard 6.2)

Customs control systems shall include audit-based control

(World Customs Organization, 1999, Standard 6.6)

The Customs shall seek to co-operate with the trade and seek to conclude Memoranda of Understanding to enhance Customs control (World Customs Organization, 1999, Standard 6.8)

The Customs shall evaluate traders' commercial systems where those systems have an impact on Customs operations to ensure compliance with Customs requirements (World Customs Organization, 1999, Standard 6.10).

In addition, the previously cited general principle is of particular relevance:

The Customs shall institute and maintain formal consultative relationships with the trade to increase co-operation and facilitate participation in establishing the most effective methods of working commensurate with national provisions and international agreements (World Customs Organization, 1999, Standard 1.3).

The WCO standards are reflective of the types of risk-based compliance management styles identified in Chapter 4, including consultation with industry, minimal customs intervention, the use of post-transaction compliance assessment and the need to assess the underlying systems that may impact on compliance levels. While an effective legislative base is required to give effect to such methods of compliance management, it is considered essential that an appropriate administrative framework is also developed, since the way in which the law is applied in an administrative context may have a significant impact on commercial trade. In this regard, all levels of the Risk-based Compliance Management Pyramid (refer Figure 4.7) above the Legislative Base (i.e. Client Service, Compliance Assessment and Enforcement/Recognition) are symptomatic of administrative policies and procedures that are consistent with a risk-managed style of compliance management (refer Table 4.1).

United States

The USC modernisation program, which includes the previously addressed statutory provisions of the Customs Modernization Act, has brought with it significant changes to the way in which the USC approaches its task of managing compliance. According to Lane:

[The] formerly adversarial atmosphere existing between industry and customs has been changed to a partnership of sorts, based on informed compliance, reasonable care, and a greater sense of cooperation (Lane, 1998b, p.1).

Similarly, Weise comments that the Customs Modernization Act:

promotes an atmosphere of open communication and cooperation between the U.S. Customs Service and the trade community...we have made it a practice to establish new partnership approaches for developing and changing regulations, processes and systems (Weise, 1998, p.22).

To complement the statutory requirements of the Customs Modernization Act, the USC produced an administrative blueprint entitled 'People, Processes, Partnerships' (U.S. Customs Service, 1994). The document recommended new management approaches, along with a revised organisational structure, designed to facilitate the implementation of the principles of the Act. According to Braga, the blueprint was intended to bring about a new culture characterised by:

improving the skills and the action of the employees; managing essential core processes; serving the legitimate needs of Customs' many customers as the focus of the organization's process management efforts; and forming partnerships as a means of meeting improving Customs' mission performance (Braga, 2001, p.20).

The aspects of regulatory compliance highlighted by Braga, whilst notably administrative in nature, rely heavily on the establishment of an effective legislative base. Indeed, it is important to note that the administrative and statutory elements of a regulatory compliance management regime as presented in the previous chapter, are inextricably linked, and that the overall effectiveness of the regime is dependent upon the appropriateness and robustness of both. For example, it would not be possible for a customs authority to provide special privileges to individual traders or to impose particular sanctions unless such actions were provided for in legislation. Similarly, a legislative base that provides a customs authority with a degree of administrative discretion is unlikely to achieve the legislators' objectives if the associated administrative framework is ineffective. The interdependent nature of the administrative and legislative elements of regulation are demonstrated in the following definition of 'informed compliance', which has been adopted by USC in its implementation of the Customs Modernization Act:

A shared responsibility wherein the Customs Service effectively communicates its requirements to the trade, and the people and businesses subject to those requirements conduct their regulated activities in conformance with U.S. laws and regulations (U.S. Customs Service, 2002b, p1).

In other words, it is incumbent upon the USC to ensure that the international trading community has a clear understanding of the legislative requirements of the Customs Modernization Act. Having moved away from the traditional 'gatekeeper' style of compliance management, the USC is placing particular emphasis on the way in which it carries out its responsibilities from an administrative perspective. In this example, the USC is seeking to ensure that appropriate 'client service' elements of the Risk-based Compliance Management Pyramid are implemented, including the provision of clear administrative guidelines, education, awareness and advice.

The USC blueprint also highlights a need for USC to adopt an approach to compliance management which minimises intervention in normal commercial processes and which focuses the efforts of customs officials on the measurement and improvement of voluntary compliance with customs legislation by the international trading community. This has led the USC to adopt an approach to compliance management that places less emphasis on real-time checks and examinations, and greater emphasis on post-transaction audits. Such an approach reflects key elements of a risk-based compliance management style (see Table 4.1 and Figure 4.7), with its increased focus on post-transaction compliance assessment as opposed to the traditional 'gatekeeper' focus which focuses on real-time intervention and compliance assessment, i.e. regulatory intervention at the time of importation and/or exportation.

Such an administrative focus by USC also represents an appreciable move away from the assessment of individual transactions (indicative of the traditional 'gatekeeper' style), in favour of an overall assessment of the integrity of trader systems and procedures, which ultimately influence the degree of trader compliance and the potential for improvement in compliance levels. As such, USC's 'informed compliance' strategy, with its broader focus on a trader's systems, procedures and accounting practices, is representative of a risk-based compliance management style. Through this strategy, USC is embarking upon a comprehensive program of posttransaction audit in an effort to obtain an overall view of a trader's compliance levels, recognising that isolated errors do not necessarily provide an accurate indication of their overall degree overall compliance. According to Baker, 'The highest level of compliance finding will only be made for companies which have adequate internal controls - a corporate Customs compliance program - sufficient to assure Customs of continued future high compliance levels' (Baker, 1997, p.8).

Recognising that not all companies will seek to abide by the rules, the USC has developed two complementary strategies for ensuring that compliance is being achieved – informed, voluntary compliance and enforced compliance. USC regards informed, voluntary compliance as the preferred approach, but contends that enforced compliance strategies such as penalties, investigations and seizures, are appropriate when voluntary compliance strategies are unsuccessful, and where traders have failed to meet their responsibility of reasonable care (U.S. Customs Service, 2002b). This dual approach to compliance is consistent with Carmody's (1998) view which, whilst identifying the need to balance 'audit' with 'service', recognises that ultimately, taxpayer compliance is paramount. In this regard, Carmody emphasises the need to balance the two basic approaches to compliance management in such a way as to maintain community confidence that tax evaders are being appropriately dealt with. The USC approach is also consistent with Sutinen's (1996) argument that blatant non-compliers must be controlled, even though they may represent a small proportion of the total regulated population and the extent of their illegal activities may be minor.

The USC's dual approach to compliance management is also fully consistent with the enforcement/recognition stage of the conceptual model (see Figure 4.7). The model suggests the adoption of one of two broad courses of action once an assessment of compliance is completed. Where non-compliance is identified, a number of enforcement options are available to the regulatory authority, ranging from persuasion to penalties (which may include both civil and criminal penalties). Alternatively, where a trader is assessed to be compliant, a variety of rewards may be extended to the trader, including the opportunity for increased self-assessment, reduced regulatory scrutiny and less onerous reporting requirements.

The principal enabler that USC has employed to assist in minimising regulatory intervention in commercial trade transactions has been the introduction and expansion of its automated systems. These systems, which are discussed in more detail in a later section of this chapter, have enabled USC to electronically screen information relating to import and export transactions, in order to assess the need for physical intervention. According to the U.S. Customs Service (2002a), data is received and screened electronically for approximately 98 per cent of sea containers prior to their arrival in the U.S., with the vast majority being released without physical inspection.

Australia

Prior to 1999 the ACS had administrative responsibility for a range of indirect tax and industry assistance regimes worth about \$30 billion, including the collection of customs duty, excise duty and sales tax, the payment of bounties and rebates, and revenue forgone under a range of duty exemption schemes. In April 1994 the Government accepted the findings of the Government review of Customs (Australian Customs Service, 1993), including the need to overhaul the industry audit function which formed the core of the organisation's compliance management program. Later that year, the Minister responsible for Customs convened an Industry Panel to assist the organisation to establish an effective compliance management strategy, and to provide a forum for the ACS to consult with its clients on initiatives which impact on them. The Industry Panel included representatives of the importing, exporting, manufacturing, accounting and broking industries as well as academics, a senior tax official and a senior customs representative. The fact that this was the first time that industry representatives were assembled for the specific purpose of establishing new approaches to regulatory compliance management is indicative of a significant shift from the unilateral approach to such issues that the ACS had traditionally adopted, to the type of consultative, cooperative approach indicated by the risk-based conceptual model. The Industry Panel's report (Australian Customs Service, 1995), which was adopted in March 1995, has provided the ACS with a comprehensive compliance management blueprint and has been publicly acclaimed as the most significant element in the organisation's post-1994 reform program (e.g. Widdowson, 1998).

As a result, the ACS has implemented an administrative style of compliance management consistent with key elements of the risk-based conceptual model,

including strategies that balance enforcement with assistance, and which recognise the benefits of providing industry with incentives to comply. The new administrative style of compliance management was reinforced by the launch of the ACS Cargo Management Strategy (Australian Customs Service 1997). The strategy, which introduced the concept of partnerships with industry, reflects the dual enforcement/recognition aspects of the conceptual model (see Figure 4.7). In this regard, the strategy is based on the premise that companies with a good record of compliance do not require the same level of scrutiny as those with a history of poor compliance. As a consequence, a key element of the strategy seeks to provide highly compliant companies with more latitude to self-assess their revenue liability, by relying primarily on their internal accounting systems and procedures, as provided for under the Accredited Client Program provisions discussed earlier in this chapter. This in turn provides compliant companies with a high degree of flexibility in the way in which they interact with the ACS, resulting in a range of commercially attractive outcomes. A key benefit for the ACS is the willingness displayed by industry to invest in those systems and procedures which impact on their compliance levels, in order to achieve the benefits of the partnership arrangements.

The ACS describes this strategy as one of 'compliance improvement', where the principal objective is to maximise compliance by seeking to achieve a continual improvement in the level of voluntary compliance. The principal focus of the compliance improvement regime is that of future compliance rather than the correction of past errors, and in ensuring that an appropriate balance exists between incentives for compliance and sanctions for non-compliance. The compliance improvement strategy seeks to establish why an error was made and seeks to ensure that it doesn't recur. In this regard, the ACS compliance management activities are tailored to address the cause of the particular problem. For example, it may be necessary to address systemic problems within the company, it may be appropriate to make customs officials available to the company or perhaps the particular industry sector to advise on compliance issues, or perhaps formal clarification of the law through binding rulings or other means may be the most appropriate solution. Noncompliance may range from innocent mistakes to blatant fraud, and as the error nears the fraudulent end of the spectrum, some form of sanction will come into play. This may include administrative penalties or, in the worst cases, prosecution. In all cases,

however, the new direction seeks to strike an appropriate balance between incentives for compliance and sanctions for non-compliance, recognising that the overall objective is to achieve an improvement in future compliance (Widdowson 1998).

The concept of the ACS compliance management strategy may be described by reference to the various levels of the Risk-based Compliance Management Pyramid (Figure 4.7). As a result of assessing levels of compliance under the *Compliance Assessment* level of the pyramid, the ACS seeks to determine whether the cause of the identified non-compliance relates to factors associated with the *Legislative Base* or *Client Service*, or whether it represents some form of deliberate non-compliance or negligence on the part of the trader. Where the cause is identified to rest with the trader, the ACS reverts to one of the enforcement strategies of persuasion, formal warning or penalty. If however, the cause is identified to rest with legislative or other factors, the ACS will engage in corrective action such as legislative clarification, technical assistance, consultation, advice and so forth.

The ACS states that it has a 'direct interest in improving compliance levels of our clients and we are committed to fostering an environment where we work cooperatively with them to achieve this' (Australian Customs Service, 2002, p.1). To assist in achieving the desired improved levels of compliance, the ACS has developed a 'Customs Compliance Continuum' which matches trader behaviours and motivations with relevant forms of customs operational response (see Figure 5.1). For example, education and training may be appropriate responses for traders who are not yet fully compliant, but are attempting to achieve a state of compliance. On the other hand, deliberate non-compliance is more appropriately addressed through searches, investigations and sanctions. This approach, which is similar to the USC strategies of informed, voluntary compliance and enforced compliance, is fully consistent with the risk-based style of compliance management, conceptualised in the previous chapter. Key aspects of the risk-managed approach are examined in a later section of this chapter.

Customs Compliance Continuum

CLIENT CATECODIES DEHAVIOURS AND MOTIVATION

CLIENT CATEGORIES—BEHAVIOURS AND MOTIVATION			
Self regulation Informed self assessment Management is compliance orientated Includes accredited clients 	Assisted self regulation Not yet compliant Attempting compliance Developing internal control systems 	Directed regulation Resistance to compliance Lack of compliance Limited / poor systems 	Enforced regulation Deliberate non compliance Criminal intent Illegal activity
CUSTOMS OPERATIONAL RESPONSE			
 Education and training Maximum pre-arrival / departure clearance Minimum real time pre- clearance intervention Some compliance verification: x-ray checks of documents and goods Sanctions may be imposed 	 Education and training Some real time pre- clearance intervention Some post dearance checking Compliance verification: x-ray checks of documents and goods Sanctions may be imposed 	 Pre and post clearance intervention Post dearance comprehensive audit Pre-clearance major examination Sanctions may be imposed 	 Pre and post clearance intervention Comprehensive audits Cargo searches (may be covert) Surveillance Investigation by multi disciplined teams Sanctions imposed
RISK			
Low			High

Source: Australian Customs Service (2001b)

South Africa

SARS similarly approaches its compliance management responsibilities in a manner consistent with the conceptual model, including a general reliance on the findings of post-transaction audits rather than real-time checks and examinations. The main thrust of the SARS compliance management program is to provide increased levels of trade facilitation to those members of the international trading community who demonstrate high levels of compliance, and to focus real-time physical checks and documentary examinations on those traders who do not form part of the Accredited Client Scheme, discussed earlier in this chapter. The increased emphasis on post-transaction compliance assessment methods for 'low risk' traders epitomises the shift from a 'gatekeeper' style of compliance management to one which is risk-based. Note however that, as identified in the conceptual model, real-time intervention in the form of physical and documentary checks is still appropriate in instances where potential non-compliance is suspected.

According to SARS, it is their intention to provide accredited clients with an increased level of trade facilitation by providing them with 'a number of benefits such as the electronic submission of documents, reduced physical intervention by Customs and the periodic submission of customs documentation' (World Customs Organization, 2002g). SARS is therefore seeking to establish the credentials of importers and others members of the trading community, both prior to and throughout their time as accredited clients, through an assessment of a client's underlying systems and procedures. This may involve examining the client's record of compliance during the past five years, assessing the integrity of their IT systems and operational processes and procedures, ensuring that those with responsibility for administering the accredited client requirements have sufficient knowledge of customs laws and procedures to do so, ensuring that the client is solvent to ensure business continuity and undertaking post-transaction audits and inspections as required, in order to verify claims made by the client. Such an approach closely mirrors the method of compliance management adopted by their counterparts in Australia and the US, and is fully consistent with the principles identified in the conceptual model.

In introducing the Accredited Client Scheme, SARS announced:

The South African Revenue Service (SARS) is determined to clean up the 'Customs Industry' of all misconduct and fraudulent activities that are associated with it. Over the past few months, the SARS has been taking necessary steps to achieve this goal. It is unfortunately still a case that SARS' efforts are still being conducted in an isolated way with each stakeholder only concentrating on their portion of the Customs industry. SARS recognises though that some clients are determined to maintain and improve their compliance to the SARS: Customs and Excise fraternity (South African Revenue Service, 2002b, p.1).

In this context, SARS indicates that the main aim of the scheme is to:

fundamentally change the relationship between Accredited Clients and the SARS. This means that it will be expected of the Accredited Client to implement and maintain efficient and effective procedures/processes to achieve full compliance with the Customs and Excise Law and procedures.

Furthermore, it also places the responsibility on the SARS: Customs and Excise to implement and maintain efficient and effective procedures/processes to facilitate legitimate trade (South African Revenue Service, 2002b, p.1).

In return, SARS has developed (and is still in the process of developing) a suite of facilitative arrangements of which clients may avail themselves for as long as they retain accredited client status, consistent with the concept of rewards for recognised compliance, as identified in the Risk-based Compliance Management model (see Figure 4.7). These include electronic clearance arrangements based on a fully paperless reporting environment, with no requirements for supporting paper documentation (which is essentially an enabler – see Table 4.1), minimal customs intervention, immediate clearance in most instances and deferred duty payment arrangements.

Notably, all facilitative arrangements are negotiated directly with individual clients to ensure their relevance to the client's particular operational needs and requirements, reflective of the tailored solutions that are achievable under the new risk-based style of compliance management. In addition, SARS invites the trading community to put forward further suggestions for benefits that accredited clients may apply for, through an ongoing industry consultation process, thereby adopting the consultative, cooperative approach anticipated by the conceptual model.

IT FRAMEWORK

World Customs Organization

A key requirement of the revised Kyoto Convention is for contracting parties to the Convention to make extensive use of information technology and electronic commerce, particularly in their clearance procedures, as a prerequisite for effective and efficient customs control. The revised Kyoto Convention also requires customs authorities to adopt relevant internationally accepted standards when introducing computer applications and to consult with all relevant stakeholders, to the greatest extent possible. The following provisions of the Convention are of particular relevance to this study:

The Customs shall use information technology and electronic commerce to the greatest possible extent to enhance Customs control (World Customs Organization, 1999, Standard 6.9).

The Customs shall apply information technology to support Customs operations, where it is cost-effective and efficient for the Customs and for the trade. The Customs shall specify the conditions for its application (World Customs Organization, 1999, Standard 7.1).

When introducing computer applications, the Customs shall use relevant internationally accepted standards (World Customs Organization, 1999, Standard 7.2).

The introduction of information technology shall be carried out in consultation with all relevant parties directly affected, to the greatest extent possible (World Customs Organization, 1999, Standard 7.3).

New or revised national legislation shall provide for:

- electronic commerce methods as an alternative to paper-based documentary requirements;
- electronic as well as paper-based authentication methods;
- the right of the Customs to retain information for their own use and, as appropriate, to exchange such information with other Customs administrations and all other legally approved parties by means of electronic commerce techniques (World Customs Organization, 1999, Standard 7.4).

The context in which the WCO promotes these standards is one of a continuously changing international trading environment in which the volume of transactions is increasing rapidly and in which the commercial community is well advanced in its use of and dependence upon new communication and information technologies. The WCO also recognises the potential emergence of a capability gap between government and commerce, and points to the need for customs authorities to exploit the available technologies to the greatest extent possible (World Customs Organization, 1999). This involves electronic data communication between customs and the trading community, the use of commercially-generated data wherever possible rather than requiring industry to generate data specifically for customs purposes, and

the ability to electronically process data for customs purposes, including electronic validation, analysis and clearance (e.g. World Customs Organization, 1999 and Parker, 2001).

The fact that commentators consider such initiatives to be essential for customs authorities to cope effectively with the rapidly growing volume of international trade transactions supports the view that an appropriate information technology infrastructure represents a fundamental enabler to the achievement of a risk-managed style of compliance management as described in the conceptual model. In this regard, however, the formal standards of the revised Kyoto Convention appear to be restrictive in their application, as they focus on the usefulness of the enabling technology in supporting the customs control imperative, to the apparent exclusion of the requirement to facilitate trade.

Whilst acknowledging the need to consult with the international trading community (Standard 7.3), adopt recognised industry standards (Standard 7.2) and ensure that the use of information technology is cost-effective for the trading community (Standard 7.1), there is no explicit reference in any standard to the fact that the use of information technology and electronic commerce may be used as an enabler to facilitate international trade. In contrast, Standard 6.9 emphasises the potential benefits of using information technology and electronic commerce in enhancing regulatory control. The guidelines to the revised Kyoto Convention do, however, address the potential benefits to both trade facilitation and regulatory control. Despite the more balanced coverage provided in the guidelines, the formal standards themselves fail to address the potential benefits of information technology in relation to the facilitation of trade, and this is seen to be a significant shortcoming of the public face of the Convention.

In promoting the Standards of the revised Kyoto Convention, the WCO argues:

The promotion of IC [Information and Communication] technologies within this Guideline presumes that all administrations are being confronted with the issue of having to handle an increasing total workload (both in the commercial and the traveller environments), and as such, Customs is being forced to do more with existing or less staff. Many administrations have already proven that the introduction of IC technologies have improved the quality of handling and processing the information requirements, freeing up resources to concentrate on noncompilers and enforcement needs, while at the same time improving the standard of the information that is being received...it is important to note that the intent of this guideline is to focus the attention of all Customs administrations on the impact of IC technologies on the business of Customs. Customs needs to be aware that the use of IC technologies, combined with rapidly changing business practices, has had and will continue to have, a significant impact on how governments, trade industries and transport companies world-wide conduct their day-to-day business (World Customs Organization, 1999, Ch.7, p.8).

Such an impact is particularly notable when considering the escalating use of ecommerce and the proliferation of global supply chains. Not surprisingly, in advocating the use of information technology to facilitate customs clearance processes, the WCO consistently emphasises the importance of utilising advanced technology to enhance supply chain security and facilitation (e.g. World Customs Organisation, 2002). Such emphasis by the WCO recognises the fact that global supply chains are becoming increasingly reliant upon information technology and telecommunications infrastructure, and that e-commerce relies heavily on digital transportation networks to facilitate the movement of goods as part of a paperless society. Commercial network providers are seeking to ensure that such systems include the capability to interface with government and other systems, in order to provide a complete logistics management solution, including customs reporting and clearance. Leading examples of such systems include those developed and operated by the major air express carriers, i.e. DHL, FedEx, TNT and UPS.

It is also evident that the development and implementation of community information systems within a port or airport environment is occurring on a global basis (e.g. Hong Kong Port & Maritime Board, 2001). There are numerous examples where members of a port community are using a common information technology system based on electronic data interchange (EDI), the premise being that if common data elements can be passed between stakeholders accurately and in a timely manner, there is the potential for the whole operation to improve its efficiency and therefore throughput. In this regard, the members of a port community comprise both commercial and

government organisations and include freight forwarders, shipping lines, airlines, express carriers, agents, customs brokers, transport operators, port and terminal operators, free trade zone operators, customs administrations and other government agencies.

Within the shipping environment, for example, community based systems are being used in ports such as Singapore, Seattle, Le Havre, Antwerp, Rotterdam, Felixstowe, Hamburg, Marseilles, Dalian and Barcelona. In some instances, these link with government agencies such as customs, trade and agriculture. One of the most widely recognised government-sponsored systems is Singapore's Portnet system, owned by the PSA Corporation Limited, which is now being adopted for use in a number of other countries including South Africa, the United States and China. In Singapore, Portnet interfaces with TradeNet, the government portal which links with various government agencies, in order to provide a single point of contact for traders, cargo agents, shipping agents and freight forwarders (e.g. Singapore Customs, 2002).

Initiatives of this nature are being driven by a general agreement among both the government and private sectors that the potential benefits of adopting information technology solutions in the customs environment include more effective customs controls, more efficient customs clearance, increased levels of trade facilitation, the uniform application of customs law, more efficient revenue collection, more effective data analysis, efficient production of external trade statistics and improved quality of data. While such potential undoubtedly exists, it is unlikely to be realised if the approach adopted by a customs authority is simply to automate its existing outdated and ineffective operational processes and procedures. In recognition of this imperative, the WCO encourages administrations to firstly reform and re-engineer their procedures and processes in line with international best practice prior to the introduction of automated systems (see World Customs Organization, 1999).

The need for such procedural reform is also identified by organisations such as the International Chamber of Commerce (ICC), who are seeking to ensure that customs authorities introduce processes and procedures that appropriately recognise the highly-developed IT infrastructures of world commerce and make greater use of integrated information systems (e.g. Parker, 2001). Indeed, an increased use of integrated systems appears to be a logical and realistic expectation, since the data

required by customs administrations and other government agencies to process trade transactions is generally available from the commercial information systems used to support business transactions. Consequently, information reporting to government agencies such as customs can be greatly facilitated through the use of commercial information networks. In this regard, the emergence of new technologies and telecommunications infrastructures offered by e-commerce technologies has provided customs with a broad range of information exchange options, including EDI, web-based forms, the use of service providers and value-added networks.

The opportunities for customs authorities to progress from their traditional 'gatekeeper' mode of operation to a risk-based style of compliance management through the effective use of information technology are clearly acknowledged by the experts. However, whilst the revised Kyoto Convention emphasises the need to maximise the use of information technology in order to enhance regulatory control, customs authorities and the international trading community also recognise the need to use such technology in a way which facilitates trade. The latter viewpoint is evidenced by Parker's (2001) argument that customs clearance information should be derived from data that has already been generated for commercial purposes, thereby lessening the regulatory burden of the international trading community, a view which is also expressed in the guidelines to the revised Kyoto Convention.

Consequently, it may be argued that the concept of an effective information technology framework as a key enabler to the achievement of a risk-managed style of compliance management should explicitly encompass effective usage from both a regulatory and commercial perspective. It is in this context that the concept is presented in the conceptual model (see Table 4.1).

United States

As noted earlier in this chapter, the principal tool (i.e. enabler) that has assisted the USC to minimise regulatory intervention in commercial trade transactions has been the introduction and expansion of its automated systems. These systems have enabled USC to electronically receive and screen import data for approximately 98 per cent of sea containers prior to their arrival in the U.S., in order to assess the need for physical

intervention, which in turn has enabled USC to release the vast majority of imported sea containers without physical inspection (see U.S. Customs Service, 2002a).

The current USC automated system for processing imports, the Automated Commercial System, was designed in 1984. By 1993, when the U.S. Congress passed the Customs Modernization Act, considerable lessons had been learned in relation to the way in which such systems could facilitate the work of both government and the business community. As a result, the Customs Modernization Act, which seeks to maximise the benefits of such systems to both sectors, includes specific provisions that allow for the full electronic processing of all customs transactions, including the payment of any duties and other taxes by way of electronic funds transfer (EFT). The Automated Customs System has subsequently been further developed, and is now used by USC to track, control, and process all commercial goods imported into the country.

A key feature of the system is the ability for specified importers or their agents to submit information to customs electronically from any location, regardless of where the goods arrive in the country or where they are required to be examined. This feature, referred to as 'remote location filing', is designed to facilitate a trader's interaction with customs by reducing the limitations previously required under the documentary lodgement regime. Shipping companies, airlines, traders and their agents are also able to submit details about shipments prior to their arrival in the U.S. This facility generally enables compliant traders to receive immediate access to their cargo by enabling them to obtain customs clearance prior to or upon arrival of the goods at the port of entry. In terms of the conceptual model (refer Figure 4.7), such a facility enables the USC to employ a range of risk-based procedures for the purposes of assessing compliance that would not otherwise be possible. These include the identification, analysis, selection and targeting of high risk consignments prior to arrival, the release of low-risk consignments without customs intervention and the ability to place a greater reliance on post-transaction audit activities.

The Automated Commercial System comprises several integrated elements, including:

Automated Broker Interface (ABI), which provides for the electronic submission of import declarations (or entries), with over 96 per cent of import entries currently being filed through ABI

- Automated Clearinghouse (ACH), which enables electronic payment of customs fees, duties, and taxes
- Border Release Advanced Selectivity System (BRASS), which tracks, processes and releases highly repetitive shipments at land borders
- Automated Manifest System (AMS), which enables details of manifests, air waybills and bills of lading to be reported to customs electronically prior to arrival
- □ A variety of customs profiling, targeting, analysis and statistical systems. For example, cargo and entry data is used to identify high-risk consignments and to assess levels of compliance (see U.S. Customs Service 2002c).

The system also interfaces with a number of other government agencies, including the Department of Transportation, the Bureau of Census, the Federal Communications Commission, the Food and Drug Administration and the U.S. Fish and Wildlife Service. This provides traders with a 'one-stop-shop' service that enables them to meet their various government reporting obligations through a single report to customs, thereby providing an additional form of facilitation to the international trading community that would not be available in the absence of an appropriate enabling information technology infrastructure.

The Automated Commercial System is nearing the end of its useful life cycle, and USC is currently in the process of developing a replacement system, known as the Automated Commercial Environment (ACE), which it describes as a new high-tech system for processing international trade transactions. USC claims that the ACE system:

will revolutionize how Customs processes goods imported into the United States by providing an integrated, fully automated information system to enable the efficient collection, processing, and analysis of commercial import and export data. ACE will simplify dealings between Customs and the trade community by automating time-consuming and labor-intensive transactions and moving goods through the ports and on to markets faster and at lower cost (U.S. Customs Service, 2002c, p.1).

In other words, the new information technology infrastructure will act as an enabler for USC to further progress its development of a risk-managed style of compliance management by providing the necessary mechanism to speed up and refine the process of assessing transactional data and hence clearing and releasing shipments that are deemed to represent a relatively low risk.

Australia

The ACS has been using electronic systems and Electronic Data Interchange (EDI) for many years. However, most of its existing electronic applications are now outdated and their ongoing relevance and effectiveness is limited. In essence, these systems are designed to communicate and process data relating to sea cargo manifests, air cargo manifests, import declarations and export declarations. This involves the transmission of cargo data and associated messages between the ACS and the relevant parties which, depending on the type of transaction involved, may include the shipping agent, airline, freight forwarder, express carrier, importer, exporter and/or broker. The automated processing of the data by the ACS includes verification, analysis and profiling, which among other things enables the ACS to undertake the type of compliance assessment envisaged by the conceptual model.

Rather than simply rebuilding the various applications, the ACS has undertaken a significant business process re-engineering exercise and is currently in the process of replacing its outdated systems for processing and clearing sea cargo and air cargo imports and exports, along with the associated industry reporting requirements with a single electronic communication and processing system known as the Integrated Cargo System (ICS).

According to Ellison, the new approach to cargo management:

is about the creation of an environment that is intended to reduce the cost of communication and to provide choice in how that communication occurs. It establishes an environment that relies on commercial information rather than something specifically created for government...Australia is not alone in moving towards the maximum use of available technology to manage the movement of goods across its borders. Other customs administrations have moved or are moving in similar directions. It is therefore important that we

keep abreast of international best practice. This proposed legislation and the systems re-engineering that it supports will sustain Australia at the cutting edge of customs administration internationally (Ellison, 2001, pp. 1, 2).

Ellison's comment highlights a number of key areas in which the ACS is further progressing towards a risk-managed style of compliance management. Reducing the cost of communication and providing choice in how data is transmitted between the international trading community and customs authorities is indicative of a compliance management approach that provides for flexible, tailored solutions and which seeks to provide a high degree of facilitation for the industry. Facilitation is further supported through the increased reliance on existing commercial data rather than requiring industry to generate data specifically for customs purposes, which in turn recognises Parker's (2001) contention that data required by customs is generally already available in the commercial information systems used to support business transactions. Of particular significance is Ellison's observation that the 'maximum use of available technology' together with an appropriate legislative base are essential enablers to achieving the environment envisaged by the ACS. In this regard, there is little doubt that, given the extremely large amounts of data that customs authorities are required to process, effective compliance management would simply not be possible in the absence of such sophisticated information technology and communication systems.

The move by the ACS to establish a fully integrated cargo system reflects the approach currently being adopted by the USC, which is also seeking to bring together its disparate processing systems in the development of its Automated Commercial Environment. According to the ACS (e.g. Australian Customs Service, 2002b), the replacement of the current information technology systems with a single integrated system is a key element of the cargo management reengineering initiative, with benefits including the ability to tailor IT solutions to meet the particular needs of the different industry sectors, in line with the ACS 'one size doesn't fit all' philosophy.

In addition, it is the ACS intention that all international cargo will be reported electronically to customs prior to its arrival in Australia, thereby allowing the ACS to undertake pre-arrival processing and to advise commercial operators of the 'customs status' of the goods prior to or at the time of their arrival. In this context, the customs

status essentially relates to the customs decision about how the goods should be dealt with on their arrival in Australia. This may involve allowing the goods to be imported unimpeded, allowing the goods to be imported pending the provision of further information, or requiring the goods to be examined prior to release. This in turn will provide traders with greater certainty about delivery times prior to the arrival of their cargo.

It is also intended that the integrated systems approach will provide for an increased reliance on trader self-assessment, particularly for low value goods, such as those imported and exported by air express carriers (see Australian Customs Service, 2002b). As previously noted, this is something which could not be achieved in the absence of automated processing systems, due to the high volume of packages and documents being traded. However, with the support of an appropriate information technology framework, the ACS is establishing an increased capability to undertake the range of risk-based compliance assessment procedures identified in the conceptual model (refer Figure 4.7), including a post-transaction focus in the majority of cases, and pre-arrival assessment, clearance and release. Furthermore, the new integrated cargo system is being developed in such a way as to provide traders with the option of interfacing with the ACS via the Internet as well as through the use of EDI, thereby providing smaller commercial operators with an affordable method of electronic data transmission by utilising their existing information technology infrastructure.

South Africa

Unlike its counterparts in Australia and the United States, SARS has until very recently (pre-2002) been relying heavily on manual methods and procedures to process and clear international cargo, and consequently its electronic communication and processing environment is still very much in its infancy. However, the automation of customs processes represents a key element of the current modernisation program, and SARS has embarked on a very ambitious development and implementation program that, if fully achieved, will see most customs processes automated by 2004.

SARS regards e-commerce and EDI as a technology-led revolution which 'allows flexibility, innovation and creativity in an unprecedented fashion' (South African

Revenue Service, 2002c). In pursuing its comprehensive program of electronic initiatives, SARS is seeking to achieve a range of benefits for both customs and the trading community, including the ultimate achievement of a paperless trading environment. Such benefits include speedier processing times and quicker cargo release, as well as greater flexibility in relation to the times at which transactions may be processed. With fully automated procedures and limited human intervention, the proposed arrangements will provide the trading community with an around-the-clock processing capability that will overcome the present restriction of limiting the submission of documents and issuance of customs clearances to standard hours of business, or outside such hours if additional fees and charges are paid.

Automation of the various systems will also provide a more efficient and effective means of capturing and validating data, which in turn will lead to improved data quality, and will facilitate the generation of accurate management and statistical information on which to base business decisions. In addition, the proposed automated analysis and risk profiling functionality will greatly assist SARS to identify those consignments that may warrant further investigation, thereby improving the facilitation of low-risk cargo (South African Revenue Service, 2002c). The fact that such benefits have previously been unavailable to the trading community in South Africa serves to highlight the importance of establishing an effective information technology framework as the primary enabler for implementing a risk-based compliance management strategy.

A key feature of the electronic initiatives within SARS is the development of a processing system known as the Manifest Acquittal System (MAS), which is designed to electronically receive and process cargo reports. Due to the extent of the project, the development of MAS has been broken down into different phases, with the first phase addressing importations by sea. Once fully developed MAS will, among other things, provide for:

- Electronic receipt of cargo data from carriers and other responsible parties prior to vessel or aircraft arrival
- □ Automated risk profiling prior to the arrival of the cargo, which will facilitate identification of those consignments requiring customs intervention, and provide traders with a customs status prior to or at the time of cargo arrival

- Automated acquittal of manifest and import declaration data, which assists in ensuring that all international cargo is reported to Customs
- Minimal intervention on the part of Customs, thereby facilitating the majority of international trade
- Optimum usage of EDI for the communication of cargo information by interfacing with commercial systems (e.g. South African Revenue Service, 2002d).

In progressing these initiatives, SARS is working closely with industry and other government agencies in an effort to maximise the potential benefits to all parties. The overall Customs E-Commerce/EDI initiative is also designed to contribute to closer relationships with port authorities, rail operators, airlines, container depots and other members of the international trading community, resulting in a seamless environment that supports a variety of supply chain management solutions. Commensurate with the principles espoused by the conceptual model, SARS is firstly reengineering its relevant operational processes and procedures prior to the development of automated solutions, with such reengineering being progressed in consultation with key commercial stakeholders. As such, rather than being in a position to build on an existing information technology framework as is the case in Australia and the United States, SARS has been faced with the task of implementing all elements of the enabling information technology framework as described in the conceptual model (refer Table 4.1) in order to progress its transition towards a risk-based style of compliance management.

RISK MANAGEMENT FRAMEWORK

World Customs Organization

In the face of mounting pressure from the international trading community, customs administrations around the globe are gradually abandoning their traditional, routine 'gateway' checks and applying the principles of risk management with varying degrees of sophistication and success, in an effort to facilitate the process of directing resources towards areas which have the potential to cause disruption of control or loss of revenue. Some have taken the concept further by seeking to actively identify and address potential impediments to their objective of facilitating legitimate trade.

Risk management, however, is not new to customs, as there is no doubt that the vast majority of administrations have been utilising some form of risk management procedures or guidelines, either formal or informal, since time immemorial. For example, none would go to the extraordinary lengths of checking each and every passenger, consignment or carrier in an effort to determine compliance with customs requirements. Indeed, it is neither possible nor desirable to individually examine, check or approve all cargo, documentation, vessels, aircraft, passengers, postal items, etc., and consequently some degree of risk management must be applied by all customs authorities, regardless of whether they formally recognise the concept of risk management as such. There is, however, an increasing formal recognition of the concept within the international customs community, together with an understanding that the application of risk management principles may assist in achieving customs objectives, particularly in the exercise of customs controls (e.g. Vassarotti, 1997 and World Customs Organisation, 1999). Through the use of a variety of risk management techniques, which appear to vary considerably in terms of their level of sophistication and effectiveness, customs authorities are now seeking to identify the risks associated with international trade transactions and focus their resources where they are likely to achieve the best results.

The transition from the traditional 'gatekeeper' style to one that seeks to manage the risks associated with regulatory compliance management is conceptualised in Table The conceptual model identifies various strategies that epitomise the two 4.1. philosophical approaches to compliance management. Typically, the 'gatekeeper' approach is characterised by indiscriminate customs intervention or a regime of 100 per cent checks. Similarly, payment of duties and other taxes are a prerequisite for customs clearance under the 'gatekeeper' model, and such clearance is invariably withheld until all formalities and real-time transactional checks are completed. A risk-managed approach, on the other hand, is characterised by the identification of potentially high-risk areas, with resources being directed towards such areas and minimal intervention in similarly identified low-risk areas. Such regimes adopt strategies that break the nexus between physical control over goods and a trader's revenue liability, and permit customs clearance to be granted prior to the arrival of In addition to these more readily identifiable characteristics of risk cargo. management that are identified in Table 4.1 under the general grouping of 'Risk

Management Framework', a risk-managed style of compliance management also extends to other groupings within the table, including the legislative, administrative and information technology frameworks. For example, as discussed earlier in this chapter, aspects of a customs authority's administrative framework that characterise a risk-managed style include a focus on the overall integrity of the systems and procedures of a trader, rather than the traditional focus on individual transactions.

From a customs perspective, the adoption of risk management techniques is generally seen to represent an attractive alternative to the more traditional approach to compliance management, as it has the capacity to provide more efficient and accurate identification of high-risk trade transactions. This is achieved by directing resources to examining the way in which risks may occur, and analysing, evaluating and devising ways of treating such risks. This includes gaining an understanding about factors that may indicate that certain processes, transactions or consignments present a higher or lower risk than others. Such activities may in turn help to maximise the efficient and effective allocation of a risk-managed style of compliance management may provide administrations with an opportunity to streamline their processes and procedures, as well as providing a sound basis for customs decision-making and ensuring that customs activities maintain their relevance (e.g. World Customs Organisation, 1999).

Similarly, from the perspective of the international trading community, the adoption of a risk management style by customs authorities is seen as an opportunity for the level of customs intervention in trade transactions to be minimised as a result of increased selectivity in customs inspections, thereby providing speedier clearance of cargo. Flow-on effects may then include a reduced administrative burden and lower compliance costs for the commercial sector and increased clarity and certainty in their business dealings with customs authorities.

In recent years there has been a growing interest within the international customs community in developing a more systematic approach to the management of risk, and many administrations now have formal risk management policies and procedures in place. This trend can be attributed to a range of factors, not the least of which is the high profile accorded to the concept of risk management by various international initiatives that have served to raise the awareness of the potential benefits of applying risk management principles in the customs environment.

Tom Hayes, when Secretary-General of the Customs Co-operation Council (now known as the World Customs Organization), was an early proponent of the need for customs authorities to reconsider their traditional approach to international trade control. In an address to the 1993 Pan-Asian EDI Summit in Kuala Lumpur, Malaysia, he used an analogy which contrasted the role of gatekeeper with that of the village policeman, and in so doing, he popularised the use of the term 'gatekeeper' to describe the control-focused customs enforcement strategies that have traditionally been employed by customs authorities:

In many parts of the world one can find the remains of ancient forts, imposing castles and walled cities. All these places have one thing in common; only one or two gateways where a visitor could legally gain admission to the interior the normal situation was for the visitor to present himself and his credentials to a gatekeeper before being allowed to enter. Basically the policeman makes it his business to know what is going on in the village. He collects a constant stream of information about the life of the villagers by observation and by communication with individuals If he is a good policeman he will sense trouble before it arises and he might even take the step of delivering a warning. From time to time the policeman will fail to deter someone from committing an offence. When that happens his intimate knowledge of the affairs of the village will help him to gather evidence quickly and efficiently (Hayes, 1993, p.2).

Hayes highlighted the fact that, internationally, customs authorities are generally abandoning the 'gatekeeper' mentality that has dominated its thinking for hundreds of years and is slowly embracing the methods of the 'policeman'. He commented that this change in approach is being made possible due to the increasingly widespread use of information technology, especially electronic data interchange (EDI). Such a proposition is quite valid, given that automated processes can achieve in seconds what manual processes may take years to accomplish. Take for example the Internet search engines, which in a matter of seconds can identify every available electronic document worldwide that contains specified words or phrases.

More recently, risk management has received a particularly high profile through the WCO's championing of the concept in the revised Kyoto Convention (World Customs Organization, 1999). Specifically, the Convention includes a fundamental requirement for contracting parties to integrate the principles of risk management into all customs control programs. In particular, the guidelines on customs control, which are contained in Chapter 6 of the General Annex to the Convention, draw heavily on the concepts of risk management, and specifically state that risk management should be integral to any customs control program. Indeed, the Standards to which contracting parties must adhere include, *inter alia*:

In the application of Customs control, the Customs shall use risk management (World Customs Organization, 1999, Standard 6.3)

The Customs shall use risk analysis to determine which persons and which goods, including means of transport, should be examined and the extent of the examination (World Customs Organization, 1999, Standard 6.4)

The Customs shall adopt a compliance measurement strategy to support risk management (World Customs Organization, 1999, Standard 6.5).

In its commentary on the concept of customs control, the WCO states,

Customs administrations have to apply efficient and effective controls by implementing risk management techniques, in order to simultaneously fulfil the responsibility to collect revenue, implement trade policy, safeguard the public, manage the increase in world trade and tourism, reduce Customs personnel and offer trade facilitation to legitimate traders, travellers and carriers...Customs administrations should shift from exclusive movement controls to more audit-based controls, e.g. from the introduction of simplified procedures to authorisation for trader self-assessment. This will enable Customs to manage the growth in world trade, and the increasing demand to reduce resources, as well as the need for greater trade facilitation...Risk management is the key element in achieving this objective and should therefore be integral to the control programme of a modern Customs administration (World Customs Organization, 1999, Chapter 6, p.5).

As noted in chapter 4, the fact that the concept of risk management plays such a prominent role in the revised Kyoto Convention is due principally to the lobbying of countries such as Australia, Canada and the United States, all of which have had risk management-based control regimes in place for several years.

In a similar initiative, the Asia Pacific Economic Co-operation (APEC) Sub-Committee on Customs Procedures has included risk management on the Customs Common Action Plan. This represents a co-operative effort between 18 economies to introduce sound risk management practices across their customs administrations (Zhang, 2001). The initial APEC Seminar on Customs Risk Management was held in Hangzhou, China in September 1996. It was at that seminar that the groundwork was set for elevating risk management to the APEC Customs Common Action Plan. The seminar concluded that the adoption of a common approach would allow simplification, transparency, consistency and accountability of risk management procedures within each economy (Australian Customs Service, 1996). The conference included representation from the trading community as well as customs officials, in an effort to ensure that the concept of risk management was appropriately addressed in the context of the commercial realities international trade and travel.

The potential benefits of risk management have also been recognised by many underdeveloped countries. For example, the Oceania Customs Organisation (OCO) whose members include the countries of Australasia, Melanesia, Micronesia and Polynesia, is working towards the adoption of risk management by their members, as a tool to improve administrative and operational efficiency within the region (Oceania Customs Organisation, 2000). The South Pacific Forum (SPF) is pursuing a similar objective, and the Fiji Islands Customs Service was one of the first customs administrations in the world to adopt a formal risk management policy (Fiji Islands Customs Service, 1998).

The principles of risk management form the basis of the Risk-based Compliance Management Pyramid (refer Figure 4.7), which in turn reflects the adoption of a risk-managed compliance management style (refer Table 4.1). As previously noted, in developing the conceptual model, a linkage has been provided between recognised risk management-based strategies and a structured approach to compliance management. Fundamental to this is the need to provide the entire trading community

with the ability to comply with regulatory requirements. This involves establishing an effective legislative base and an appropriate range of client service strategies. Having achieved that, the requirement is then to identify both compliance and non-compliance through a variety of risk-based compliance assessment strategies, and to implement appropriate responses to those findings through either enforcement or recognition.

United States

The USC, one of the leading advocates of risk management in the international customs arena, is adopting a relatively rigorous, systematic approach to the management of risk to better direct its trade compliance activities (e.g. Labuda, 2000). According to Labuda:

when used in a systematic way, the steps of risk management will make our jobs easier, will result in more effective enforcement actions, and will set priorities in a more scientific and meaningful way (Labuda, 2000, p.3).

Until the mid-1990s, the USC essentially processed import consignments on a transaction-by-transaction basis by individually determining the customs clearance status of each consignment at the time of importation. This involved receiving information about the consignment, electronically or manually, and on the basis of that information, deciding whether the goods should be examined or released, or whether additional information was required. The selection of consignments was based on criteria such as the description of the goods, the country of origin or the declared value rather than whether the importer had a good track record of compliance. Consequently, the USC could conceivably examine a company's imports on a regular and ongoing basis, even though the findings of such examinations may consistently indicate that the trader was highly compliant in its dealings with customs.

While a transaction approach still exists in a more limited form, it is now being complemented by a company-based approach, referred to by the USC as 'account-based management', which redirects the compliance management focus from the transaction level to that of the overall compliance record and capability of the trader (e.g. U.S. Customs Service, 1999).
The risk management framework adopted by USC (see Figure 5.2) is a four-step process which involves:

- collecting data and information
- □ analysing and assessing risk
- □ prescribing action
- □ tracking and reporting.

Figure 5.2: USC Trade Compliance Risk Management Process



Source: U.S. Customs Service (1999)

The USC model is considered to be consistent with the Australian/New Zealand Standard (Standards Australia, 1999a), which has essentially been adopted by the WCO, in that it takes into account each element of the Standard, although the steps relating to establishing the context and identifying risk are not immediately apparent. However, in the USC model, the context is essentially represented by USC's overall responsibilities in relation to trade compliance management, which includes 'every activity related to trade from pre-importation analysis through cargo arrival, examination, release, investigation, revenue collection, liquidation, and archiving of trade data' (U.S. Customs Service, 1999).

Identification of risk in the USC model is achieved by way of the two separate, yet integrated activities of Compliance Measurement (within step 1, 'Collect Data and Information'), which applies to individual transactions, and Compliance Assessment (within step 2, 'Analyze and Assess Risk'), which relates to the post-transaction measurement of compliance for a particular trader, or 'account'. Otherwise, the USC and WCO models are considered to be very similar, with both involving analysis and evaluation of risks, treatment of risks and ongoing monitoring and review of both risks and risk treatments. Identification of risk is also arrived at through a strategic analysis of those industries which are considered to be of particular strategic importance, are associated with current international trade agreement concerns, attract high levels or rates of duty, impact on public health and safety, are associated with current concerns in relation to intellectual property rights, and/or have a high economic impact. These are referred to as 'primary focus industries', and include sectors such as agricultural products, communications, textiles and apparel. In addition, a number of strategic priorities have been identified relating to particular trading issues, such as valuation, quota evasion, country of origin marking, and the like.

The USC approach to compliance management that has emerged as a result of its extensive reform program is consistent with the conceptual model introduced in chapter 4, as it provides the USC with the ability to focus its resources on areas of high risk, with minimal intervention in low risk areas. In this regard, it should be noted that the conceptual model refers to *minimal intervention* in low risk areas, and in no way suggests that a risk-managed style of compliance management implies *no intervention* in low risk areas. This is because the concept of 'low risk' does not imply the total absence of risk, and consequently there is always the possibility of some form of risk existing, which cannot be ignored. Furthermore, it is important to recognise the fact that the risk management cycle is by its very nature iterative, and

that the ongoing requirement to monitor and review is an essential ingredient of effective risk management, in order to determine whether the current assessment of risk is still valid, and whether the chosen risk treatments are having the desired effect.

In this regard, the dual risk-assessment approach adopted by the USC is considered to be a particularly effective one, as it provides for a post-transaction focus on trader systems and procedures, while at the same time allowing for an ongoing transaction verification program. However, it is considered that an over-emphasis on real-time transaction checking may result in a retrograde step towards the more traditional 'gatekeeper' style of compliance management, and it is therefore essential to maintain an appropriate balance between real-time transaction verification and post-transaction audit activity.

In introducing its formal risk management process for international trade compliance (U.S. Customs, 1999), USC emphasised that the purpose of introducing a formal process was to enable the optimum allocation of available customs resources to USC priorities. The aim of the program is essentially to identify areas where USC compliance efforts will have the greatest impact, i.e. those areas which represent the highest risk. According to USC:

Through the Customs Risk Management Process, we are constantly analyzing information to determine what merits attention. Customs now consciously dedicates more resources to some areas and less to others. Whether an importer's cargo is inspected at the port, or supporting documentation is reviewed afterwards, all findings of compliance as well as violations are recorded and analyzed within the Risk Management Process. This process segregates the significant violations and focuses resources on the most serious problems. For the first time, Customs can systematically lessen its oversight of compliant companies and dedicate more resources to non-compliant companies (U.S. Customs Service, 1999, p.1).

This comment by the USC highlights an important aspect of the risk assessment process which many practitioners tend to overlook, i.e. the need to record and act upon findings of compliance as well as findings of non-compliance. Unless findings of regulatory compliance are appropriately addressed, the primary focus of customs authorities will be the identification and enforcement of non-compliance, which represents only one side of the apex of the Risk-based Compliance Management Pyramid (refer Figure 4.7). It is only the identification of compliant transactions and traders that can lead to strategies of rewarding compliance, including the very basic 'reward' of intervention by exception at the time of importation. As such, identification of compliance is considered to be an essential element of an effective compliance management strategy, as it is critical to active facilitation (of low-risk consignments) as opposed to passive facilitation (of non-selected consignments).

In discussing the USC approach to risk management, Braga states:

it is wrong to think that all importers, and therefore all imports, are somehow deficient and result in a loss of revenue or present a threat to the government and public. Customs has accepted the fact that many importers have an act of complying with import laws and do not present a risk that justifies a significant allocation of resources. Customs administrations must focus on what presents the greatest risk of loss to the government and public (Braga, 2001, p.16).

As previously discussed, application of this philosophy has led to the USC concepts of 'compliance assessment' and 'account management' which are designed to measure the overall level of compliance of importers. Due to the enormity of the exercise, the initial focus is on major importers, including the top 1,000 importers in terms of value of imports, and the top 250 importers in each of the primary focus industries, again by value of imports. The account management initiative enables the USC to provide increased facilitation to those traders that are demonstrating high levels of compliance, and to focus their resources on those companies that have either been assessed as greater than low-risk, or alternatively have not yet been risk-assessed. As noted by Baker:

A company that successfully completes a Compliance Assessment and has good Compliance Measurement results will benefit from reduced Customs inspections, lower documentation burdens, increased uniformity through the account-based approach, and possible future benefits such as reduced bond amounts (Baker, 1997, p.8).

Australia

A key element of the ACS approach to compliance management is the adoption of a formalised risk management strategy to ensure that efforts and resources are focussed on areas of highest risk. In this regard, the ACS has been actively involved in the development of the Australia/New Zealand Standard for Risk Management (Standards Australia, 1999a) and has developed a corporate risk management policy which is based on that Standard. In recognising the significant achievements that the ACS has made in progressing a formal risk-managed approach to compliance management, the Australian National Audit Office states:

In concluding that a sound risk management framework has been established within the Branch [a reference to the Commercial Compliance Branch of the organisation] for considering compliance risks, it is our view that the ACS is now in a position to apply that framework to the whole of the organisation and extend consideration to other types of risks. In doing so, it can capitalise on its own considerable experience and achievements as well as those of other agencies, in adopting and implementing comprehensive risk management (Australian National Audit Office, 1997a, p.xvi).

A central theme in the ACS compliance management strategy is the trend away from individual transaction analysis towards an overall assessment of the level of compliance of specific traders. Where a company is judged to represent a relatively low risk, the ACS reduces its level of regulatory scrutiny and places greater reliance on the company's self-assessment of customs compliance. This results in a situation where low-risk traders are permitted to operate under less onerous reporting arrangements, and may anticipate little in the way of customs intervention when importing and exporting their goods.

As is the case with the USC, the ACS is progressing a compliance management strategy which not only seeks to identify non-compliance in order to direct its enforcement efforts towards such transactions, but also seeks to identify those traders who are complying with the law, thereby allowing it to actively facilitate transactions that are being traded by companies which have been assessed as representing a lowrisk. As previously noted, the active identification of compliance represents a key element of the conceptual model's risk-based style of compliance management, and differs significantly from the 'gatekeeper' style, which essentially facilitates transactions (through non-intervention) by default, due to the fact that the consignment in question is not amongst those transactions that have been selected for customs inspection. Such non-intervention under a 'gatekeeper' regime often results from a shortfall in enforcement resources, which is to be expected given the escalating numbers of international trade transactions that customs authorities are required to manage.

The recognition or 'reward' of compliant companies may now be formalised under the Accredited Client Program which, as previously discussed, was recently introduced into customs law. The effectiveness of such arrangements hinges on a working relationship between customs and industry that is based on partnership and That is, one which reflects a mutual commitment to accountability and trust. improving compliance. Such partnerships must be a two-way proposition, with costs and responsibilities for both parties. Companies which propose to enter into such partnerships must, for example, be prepared to open up their operation to analysis by auditors. They also need to advise of any changes to their systems or operations which may impact on the ACS assessment of their level of compliance. On the other side of the partnership equation, the ACS is seeking to create an environment in which companies can maximise their entitlements and meet their obligations for revenue payment and trade compliance with minimal commercial impact. Equally, they are seeking to provide companies with the means to achieve certainty and clarity in assessing their liabilities and entitlements, to allow them to conduct subsequent business without fear of additional imposts after the transaction is concluded and the opportunity to recover costs has passed. In other words, no unpleasant surprises (see Widdowson, 1998).

To become part of the Accredited Client Program, a company must be able to transmit import and export information to Customs electronically, demonstrate a history of providing customs with accurate and timely information about their transactions, establish a good record of compliance with the import and export requirements of other relevant government agencies (e.g. the Australian Quarantine and Inspection Service) and demonstrate that their in-house systems and procedures will ensure that their established compliance record will continue. Consistent with the cooperative, consultative approach espoused by the conceptual model, industry has played a major role in identifying the range of incentives which may be made available under the Accredited Client Program. These include facilitated clearance of cargo, including the ability to provide minimal information to customs at the time of import, with additional information required to be provided in a monthly periodic declaration. In the case of exports, there are no information requirements at the time the goods are exported, with all relevant details being supplied to customs after the event. This ability to account for imports and exports on a periodic basis can conceivably provide significant commercial benefits to traders who import thousands of consignments a year and who may have previously been required to report each transaction to customs on a shipment-by-shipment basis.

An important issue in establishing accredited clients is the need for those who are refused accredited status to be advised of the reasons for doing so. For example, if an importer is assessed by customs as being non-low risk, it will be important for them to know why, otherwise they may remain oblivious to the problem and consequently could not be expected to address it (e.g. Drury, 2002). Such a philosophy is consistent with the 'client service' elements of the conceptual model (refer Figure 4.7), which are aimed at assisting traders to improve their levels of compliance with customs laws, including cases where non-compliance of some nature may have been detected. Drury also reinforces the need to address the risk associated with the trader and to focus on overall levels of compliance, rather than focus on individual transactional errors that may occur from time to time. Viewing the trader as an entity, according to Drury, entails an acceptance that an isolated 'innocent error' on the part of the trader should not result in the imposition of sanctions, but rather in activities that will serve to minimise the likelihood of future occurrences of the error. Again, this approach is at the heart of the ACS compliance philosophy which emphasises the need to achieve ongoing improvements in the level of voluntary compliance (e.g. Australian Customs Service 1995a).

In the context of its new compliance management strategy, the ACS has also been exploring the concept of 'prudential audit', that is an audit arranged and funded by a company to assure itself about its level of compliance with statutory or other requirements. The concept of prudential audit was addressed by the organisation in 1995 (Australian Customs Service, 1995b) at which time it was concluded that such

audits should be left to the commercial discretion of traders and that the ACS would, where possible, take the results of such audits into account when assessing the risks associated with the trader. Not surprisingly, there has been little commercial interest in prudential audits to date. However, it is considered that, if a clean bill of health is regarded to be a prerequisite for entering into partnership arrangements, there is likely to be a significant number of companies looking to be audited, and with finite ACS resources, the commercial viability of prudential audits will no doubt increase as they will be regarded as a potential entree into the partnership arrangements and the associated commercial benefits.

Implementation of the initiatives examined in this chapter represents a major element in the ACS reform agenda. The new approach is seen to be a particularly successful one in that it provides a range of tangible commercial benefits to those companies which can demonstrate a high level of compliance and an ongoing commitment to comply. As a result, there now appears to be a significant incentive for traders and their service providers to invest in those systems and procedures which impact on their level of compliance. The new arrangements are also likely to provide the ACS with a more co-ordinated, focussed approach to its considerable range of compliance responsibilities.

The fact that accredited clients are appointed by the ACS does not imply that consignments imported by non-accredited traders will automatically be subjected to some form of customs examination. What the ACS and other customs administrations are essentially pursuing through their accredited programs is a dual approach to compliance management that is consistent with the conceptual model. The first element of this dual approach is to identify those traders that are considered to represent a low risk and to provide them with a particularly high level of facilitation. Having done that, the customs authority is then able to better focus its resources on identifying potentially high-risk traders and transactions from amongst the non-accredited companies. This is achieved by electronically screening all transaction data against pre-determined profiles in order to identify those consignments which potentially represent a high risk. Hence the overall risk management process is operating at two levels – identifying low risk traders and, from the remainder, identifying those consignments that are most likely to represent a high risk. As previously discussed, however, there is an ongoing need to assess the compliance of

'low risk' consignments and traders from time to time, to ensure that the agency's assessment of the relative risk remains valid, and to ensure that the risk treatments that are being employed are proving to be effective.

South Africa

SARS is also in the process of introducing a structured approach to risk management in the context of its commercial compliance activities. Whilst a general risk management philosophy is well established within SARS, and has very strong support from the highest levels of the organisation, a structured approach to its application is yet to be developed. At the time of the study, SARS was planning to formalise its approach to risk management through the development and implementation of a Strategic Risk Management Plan based on the Australian/New Zealand Standard (Standards Australia, 1999a). In addition, an action plan is to be developed for cascading risk management practices to all levels of the organisation.

SARS views risk management as a management technique that will enable the smooth and unimpeded flow of international trade, whilst ensuring appropriate levels of compliance with all legislative requirements including the correct payment of duties and taxes. Such a view is consistent with the literature, which regards risk management as an enabler that will allow an appropriate balance to be struck between international trade facilitation and regulatory control, as depicted in the conceptual model (see Figure 4.5 – Compliance Management Matrix).

The need for SARS to contribute to South Africa's competitive position in the global marketplace is regarded as an important organisational objective, and as such, the mitigation of risks to the achievement of the objective is also a key aim for the organisation. In this regard, SARS regards its increased use of risk management techniques in processing and clearing cargo to be essential for South Africa to achieve and maintain a competitive position in the international marketplace (e.g. SARS, 2000e), and states:

The cost of regulation is another factor impacting on the role of Customs. Business and the community expect that the costs involved in meeting their legislated obligations, has to be as small as possible. Time is money so they expect Customs to have highly efficient and effective processes in place (preferably electronic), so that they receive approvals etc without delay and without having to go through complicated and protracted processes. International companies will take into consideration these compliance costs and delays in receiving Customs and other clearances as they decide where and with whom they will conduct business (South African Revenue Service, 2002e, p.1).

Despite the delayed introduction of a formal process to manage risk, SARS appears to be well advanced in implementing strategic initiatives which themselves are consistent with the risk-based style of compliance management espoused by the conceptual model, particularly the introduction of the Accredited Client Scheme. As previously noted, the scheme extends facilitated clearance arrangements to those traders who are able to demonstrate high levels of customs compliance and as a consequence are deemed to be low-risk. Ongoing compliance assessment of such traders is based on post-transaction audits, thereby minimising the level of intervention by SARS at the time of importation or exportation.

Real-time customs intervention, on the other hand, is intended to be reserved for those traders who have not been assessed as low risk and are hence excluded from the Accredited Client Scheme. Particular shipments of non-accredited traders are selected for physical check or documentary examination through the application of risk criteria that may relate to such aspects of the shipment as its origin, valuation, supplier, tariff classification, etc. Regardless of whether the present profiling arrangements are effective, it is considered that the absence of full automation renders the process inefficient due to the currently labour-intensive nature of the activity. However, the level of efficiency of such profiling is likely to improve dramatically once the proposed automated systems are fully implemented, since all shipment data will then be able to be automatically checked against selected profiles prior to customs clearance, and in most cases prior to the arrival of the goods in the country. This further reinforces the view that an effective information technology framework represents a critical enabler to achieving a fully effective risk-managed style of regulatory compliance management.

A further example of South Africa's progression towards a risk-managed style of compliance management is the extension of the accredited client arrangements to truckers who move uncleared consignments (e.g. those with an unacquitted duty liability) between controlled places such as ports, airports, inland ports and customs warehouses. Under the recently introduced licensing arrangements for 'removers of goods in bond', SARS do not require the shipper of goods to be held liable for customs duty in the event that they are diverted to unauthorised usage during their transportation by truck. Rather, SARS determines the outstanding duty liability of any goods that are transported, transfers the duty liability to the trucker and establishes ways of mitigating the risk to government revenue. In other words, SARS has identified a method of breaking the nexus between physical control over the goods and revenue liability, which represents a key element of the conceptual model (see Table 4.1 and Figure 4.7).

The act of breaking the nexus between physical control and revenue liability is considered to be a particularly significant shift away from the traditional 'gatekeeper' style of compliance management, whereby customs authorities hold consignments under their control pending full acquittal of any revenue liability. However, this 'foot on the goods' approach fails to properly identify the risk being managed. For example, where the customs authority has no concern about the goods themselves, but is simply concerned about the potential revenue leakage in the event that the goods are released prior to duty payment, a more appropriate method of mitigating this particular risk is to establish a mechanism for collecting the duty regardless of whether the goods are released from customs control. SARS has been successful in breaking this nexus between the goods and revenue liability by identifying truckers and/or trucking companies with an established record of compliance, and requiring them to establish bank securities which guarantee payment of duty and other taxes in the event that the goods are unable to be fully accounted for. In this way, SARS is able to further extend facilitation arrangements to traders in situations where they elect to use trucking companies who themselves have been assessed by SARS to be low-risk.

SUMMARY – INTERNATIONAL CONTEXT

An examination of the WCO guidelines, as contained in the revised Kyoto Convention, and the application of those guidelines by the customs authorities of the United States, Australia and South Africa, provides an insight into key elements of internationally recognised strategies for managing regulatory compliance that are intended to provide a high level of trade facilitation while maintaining appropriate levels of regulatory control. This examination supports the contention that key determinants of the degree to which the movement of cargo may be expedited across a country's borders, and the level of government control which may be exercised over such cargo, include a country's statutory framework, the administrative framework of a country's customs organisation, the technological framework of both industry and government and the type of risk management framework adopted by a country's customs organisation.

The examination identifies a range of strategies which characterise a risk-based style of compliance management, i.e. one that is capable of achieving an appropriate balance between regulatory control and trade facilitation. The risk-based strategies employed by the administrations, which are summarised below, are consistent with the conceptual model that is introduced in chapter 4.

In essence, appropriate statutory provisions are required to establish a legislative foundation which regards the achievement of regulatory compliance as a joint responsibility of both government and the trading community, is sufficiently flexible to allow regulatory regimes to be tailored to reflect a 'one size doesn't fit all' approach to compliance management and which provides an appropriate basis in law for the adoption of a risk-managed style of compliance management. In addition, the statutory base must provide electronic as well as paper-based processing options.

The underlying administrative framework should encourage the customs authority to balance its focus between regulatory compliance and trade facilitation, and provide for a consultative, co-operative approach between customs authorities and the trading community wherever practicable. The administrative approach should be characterised by minimal real-time intervention, with post-transaction audits and the evaluation of traders' systems representing the preferred means of assessing compliance performance and underlying compliance capability. Equally important is the need to ensure that members of the trading community are provided with sufficient information to be able to understand and meet their compliance responsibilities.

An appropriate communications and information technology infrastructure is considered essential to enable the proposed regulatory strategies to be effectively implemented. This is likely to necessitate an initial re-engineering of the relevant processes and procedures prior to automation, together with extensive industry consultation prior to implementation, with a view to maximising integration with commercial systems. Information technology solutions should encompass the communication of relevant data and advices, together with electronic processing and clearance arrangements, including electronic funds transfer.

Finally, a systematic approach to risk management should be pursued, which leads to increased selectivity in relation to the transactions, traders and industry sectors that are scrutinised by customs authorities, with such selections being made in advance of the transaction, wherever possible. This includes identifying those traders that are likely to pose a relatively low-risk to the achievement of customs objectives, and providing them with favourable facilitative arrangements in relation to customs clearance and the manner in which they may demonstrate their compliance with customs requirements. Equally, it involves methods of selecting potentially high-risk consignments and entities for higher levels of customs scrutiny, such as physical checks, documentary examinations and audits. To be fully effective, it is also necessary to break the nexus between the customs control over goods and any revenue liability that may be attached to such goods.

6. HONG KONG STATUTORY FRAMEWORK

In the following four chapters, the study turns its attention to the case study, i.e. the Hong Kong Customs & Excise Department (HKC&ED). It examines the HKC&ED approach to compliance management in the context of the conceptual framework described in chapter 4 by reference to Hong Kong's statutory framework (chapter 6), administrative framework (chapter 7), information technology framework (chapter 8) and risk management framework (chapter 9). The operational environments in which the issues are examined are grouped, where appropriate, according to the various types of cargo that are subject to HKC&ED control. These include air cargo, sea cargo, river cargo, road cargo, rail cargo, multi-modal cargo and warehoused cargo.

This chapter examines the statutory framework applying to Hong Kong in the context of the conceptual framework, including identified deficiencies and initiatives that are currently being pursued by the Hong Kong authorities to enhance relevant legislative provisions.

GENERAL

As a Special Administrative Region of China, Hong Kong operates under a philosophy of 'one country, two systems'. In this context, Hong Kong's legal system differs from that of Mainland China. Consequently, traders who are involved in trade between Hong Kong and Mainland China must observe the legislative requirements of both jurisdictions. For example, movements of goods between Hong Kong and China must comply with the export requirements of Hong Kong as well as the import requirements of Mainland China, and vice versa. Consequently, while Hong Kong forms part of the PRC, it remains an independent trading entity and a separate customs territory.

Hong Kong widely promotes itself as a free port on the basis that no customs tariffs are imposed on goods when they are either imported or exported (e.g. APEC 2002). The claim that Hong Kong is a free port is, however, something of a moot point, since many restrictions now apply to internationally traded goods which enter or leave its borders. For example, certain commodities – liquor, tobacco, hydrocarbon oil and methyl alcohol – are all subject to excise duties if imported. Whether the duties imposed are termed excise duties, customs duties, or any other form of tax, the fact remains that a taxation regime applies to particular categories of commodities (albeit a limited number) when they are imported into Hong Kong. Furthermore, a wide range of other commodities are also subject to licensing controls (although no duties apply), which ostensibly exist to fulfil Hong Kong's obligations under international agreements, or to protect public health, safety, security, the environment or intellectual property rights. International trade in such commodities, referred to as 'prohibited goods', is subject to licensing controls, and traders are required to obtain the relevant licences, permits, or certificates prior to importing such goods into Hong Kong from any other country or jurisdiction, including Mainland China. Similar requirements exist where 'prohibited goods' are intended for export from, or transhipment through, Hong Kong.

Licensing requirements are regulated under the provisions of the Import and Export Ordinance, Chapter 60, Laws of Hong Kong and its subsidiary legislation and by various other laws, which HKC&ED administers on behalf of the relevant licenceissuing authority at the point of importation and/or exportation. For example, the importation of radioactive substances requires a licence from the Trade & Industry Department, which in turn will only be issued to holders of a Radioactive Substances Licence or an Irradiating Apparatus Licence, both of which are issued by the Radiation Board. HKC&ED has the responsibility of ensuring that importers comply with this requirement.

HKC&ED is also responsible for administering various regulatory controls that apply to the carriage of goods by air, sea, river, rail and road, as well as administering a range of general reporting provisions that apply to importers, exporters, carriers, agents and others involved in international trade. The various legislative provisions relating to Hong Kong's international trade policy are addressed in a number of publications, particularly the Hong Kong Department of Justice (2003), and include:

- □ Import and Export Ordinance, Chapter 60, Laws of Hong Kong
- □ Telecommunications Ordinance, Chapter 106, Laws of Hong Kong
- Dutiable Commodities Ordinance, Chapter 109, Laws of Hong Kong

- Desticides Ordinance, Chapter 133, Laws of Hong Kong
- Dangerous Drugs Ordinance, Chapter 134, Laws of Hong Kong
- Device Health (Animals and Birds) Ordinance, Chapter 139, Laws of Hong Kong
- Control of Chemicals Ordinance, Chapter 145, Laws of Hong Kong
- □ Sand Ordinance, Chapter 147, Laws of Hong Kong
- □ Wild Animals Protection Ordinance, Chapter 170, Laws of Hong Kong
- Animals and Plants (Protection of Endangered Species) Ordinance, Chapter 187, Laws of Hong Kong
- Plant (Importation and Pest Control) Ordinance, Chapter 207, Laws of Kong Kong
- □ Firearms and Ammunition Ordinance, Chapter 238, Laws of Hong Kong
- □ Reserved Commodities Ordinance, Chapter 296, Laws of Hong Kong
- □ Radiation Ordinance, Chapter 303, Laws of Hong Kong
- Motor Vehicles (First Registration Tax) Ordinance, Chapter 330, Laws of Hong Kong
- □ Ozone Layer Protection Ordinance, Chapter 403, Laws of Hong Kong
- □ Rabies Ordinance, Chapter 421, Laws of Hong Kong
- □ Electronic Transactions Ordinance, Chapter 533, Laws of Hong Kong.

The following sections address the variety of statutory provisions relating to the various categories of regulatory control for which HKC&ED has administrative responsibility. They include the relevant legislative requirements applying to such aspects of Hong Kong's trade provisions as licensing controls, controls over the carriage of goods and reporting requirements.

LICENSING PROVISIONS

Dutiable Commodities

As noted above, excise duties are levied on four types of imports into Hong Kong, i.e. alcoholic liquors, tobacco, hydrocarbon oil (aircraft spirit, light diesel oil, motor spirit and kerosene) and methyl alcohol. The importation, exportation, storage and transportation of such goods, referred to as 'dutiable commodities', is regulated by the

Dutiable Commodities Ordinance, Chapter 109, Laws of Hong Kong and its subsidiary legislation. It should be noted that, whilst the Dutiable Commodities Ordinance also applies to the manufacture, sale, supply, use and possession of such goods, the provisions of relevance to this study are those relating to importation, exportation, transportation and storage.

In addition to having administrative responsibility for ensuring compliance with the Ordinance, HKC&ED is also the licence and permit-issuing authority for dutiable commodities. A trader must firstly obtain a licence to import, export and/or store dutiable commodities from HKC&ED prior to engaging in any international trade (or domestic activities) in relation to such commodities. Licences are applied for, and issued, on an annual basis. In addition, individual permits must be obtained from HKC&ED for any dutiable commodities on which duty has not yet been paid when they are imported into or transported within Hong Kong (removal permits) or exported from Hong Kong (export permits). It is also pertinent to note that dutiable commodities may only be stored in specified places, which include privately owned licensed warehouses, general bonded warehouses and public bonded warehouses that are licensed for the storage of dutiable goods.

Hong Kong's statutory provisions relating to dutiable commodities essentially exhibit a compliance management approach which leans more towards the risk management style examined in chapter 4. This does not appear to be the result of a legislative drafting brief that has required a risk-managed style to be reflected in the provisions. Rather, the legislation has been drafted in such a way as to allow a considerable degree of administrative discretion to be exercised by HKC&ED, from a strong 'gatekeeper' style of compliance management through to a very liberal risk-managed style. In the following chapters, the study examines the way in which customs administrative requirements are being liberalised in this area of commercial activity within the scope of the existing legislative provisions.

Strategic Commodities

Strategic commodities are items that are controlled under international export control regimes such as the Chemical Weapons Convention, Missile Technology Control Regime, Nuclear Suppliers' Group, Nuclear Non-proliferation Treaty and the

Australia Group. Controlled items are listed in the Schedules to the Import and Export (Strategic Commodities) Regulations, Chapter 60G, Laws of Hong Kong. Such commodities are subject to licensing control by the Trade and Industry Department, while HKC&ED has the administrative responsibility for managing compliance. In the case of explosives, the Civil Engineering Department also plays a role in endorsing the issue of import and export licences.

Controlled items include items specially designed or adapted for military use, including both conventional weapons and weapons of mass destruction. They range from hand guns, through to mines and bombs, directed energy weapons systems, chemical and biological warfare agents and precursors, certain electronic items, software and technology for military use. So-called 'dual use' goods are also controlled under the Ordinance. These include such items as nuclear materials, certain chemicals, micro-organisms and toxins, high speed integrated circuits, electronic test equipment, high performance computers, sophisticated communication systems, etc. Goods are also subject to import and export licensing control if the importer or exporter suspects that they may be used in connection with chemical, biological or nuclear weapons.

The legislative provisions relating to Strategic Commodities epitomise the 'one country, two systems' approach adopted by China and Hong Kong. Even though Hong Kong is now a Special Administrative Region of the People's Republic of China (as is Macau), it continues to exercise a high degree of autonomy when it comes to matters of international trade. In this regard, it is pertinent to note that Hong Kong's principal focus in applying controls over trade in strategic commodities is in respect of exports into Mainland China. Apart from the need to ensure that Hong Kong is not being used as a transhipment point for strategic commodities, a key reason for maintaining its controls is to ensure Hong Kong's continued broad access to U.S. high-tech products and advanced technology which are considered to be essential for Hong Kong's economic development (e.g. U.S. Consulate General, 1997).

Until recently, the legislative provisions governing trade in strategic commodities have been reflective of a traditional 'gatekeeper' style of compliance management, by providing a 'one size fits all' legislative base for managing compliance, with no apparent flexibility in the way in which the legislation could be administered. However, since 2000, new provisions have been introduced which indicate that Hong Kong's legislative framework governing international trade transactions is moving towards the type of risk-managed style identified in the conceptual model. Such provisions, which provide opportunities to impose less stringent regulatory requirements in certain situations, include the Air Transhipment Cargo Exemption Scheme for Strategic Commodities, which was specifically designed to facilitate legitimate trade flows through Hong Kong. The scheme is open to specially registered airlines, ground handling agents and freight forwarders that are involved in handling air transhipment cargo within the confines of Hong Kong International Airport, and allows licensing provisions for certain strategic commodities to be waived, provided registration requirements are satisfied (see Hong Kong Trade and Industry Department, 2003d).

Textiles

Hong Kong maintains import and export controls on textile products in order to meet its commitments under the WTO Agreement on Textiles and Clothing. The importation and exportation of certain textiles is regulated under the Import and Export (General) Regulations, Chapter 60A, Laws of Hong Kong. Trade and Industry Department is the licence-issuing authority for all such goods, with HK C&ED having responsibility for ensuring compliance with legislative requirements at the point of import and export.

Due to the significant concerns of Hong Kong's trading partners about the likelihood of products from the PRC being passed off as goods of Hong Kong origin, the licensing provisions apply equally to trade between Hong Kong and Mainland China, and are rigorously enforced at the land boundary control points (e.g. Hong Kong Customs & Excise Department 1996). Similarly, exporters to particular overseas markets (i.e. Canada, the United States and the European Union) are subject to export quota restrictions (e.g. Hong Kong Trade and Industry Department, 2003).

Any importer or exporter seeking to trade textile products must firstly obtain a licence for the particular consignment, which can potentially place a significant bureaucratic burden on commercial traders who may be involved in thousands of individual transactions each year. The legislative provisions do however allow traders who are registered under the Textiles Trader Registration Scheme to operate under less onerous conditions. Such traders are entitled to issue their own 'notifications', essentially on a self-assessment basis, which enables them to proceed with the trade transaction without the need to apply for and obtain a licence on a shipment-byshipment basis. As such, the legislative base provides for a shared responsibility in ensuring that compliance is achieved, through the use of a mechanism that is only available to registered traders. This in turn reflects a legislative base that provides for flexibility and tailored solutions for compliant companies, as opposed to the more traditional 'one size fits all' approach.

Other Commodities

Restrictions imposed over other commodities imported into and exported from Hong Kong are extensive. The commodities that are subject to licensing controls in Hong Kong are examined in Appendix 4, along with the respective legislative responsibilities of the various government authorities involved in the regulatory processes. In all instances, HKC&ED has an overriding responsibility to ensure that all goods imported into, exported from, or transhipped through Hong Kong are in full compliance with the relevant statutory requirements. The large number and type of commodities that are subject to licensing controls in Hong Kong provides an insight into the very broad scope of HKC&ED's regulatory responsibilities, despite its relatively small role in relation to revenue collection.

As is the case with dutiable commodities, strategic commodities and textiles, the various licensing provisions in place in Hong Kong provide a degree of flexibility to allow certain traders (essentially low-risk traders – refer chapters 7 and 9) to operate under less onerous conditions. As such, the various legislative provisions governing international trade transactions in Hong Kong are considered to be consistent with the risk-managed style described in the conceptual model.

Licensing Exemptions

As well as providing licensing exemptions in certain circumstances for registered traders, the legislative base provides blanket exemptions for a range of articles, including certain articles in transit, transhipment goods and, as noted above, textiles that are traded by approved companies. As is the case with other trade regulations,

HKC&ED has administrative responsibility for ensuring that all such exemptions are properly applied at the point of importation and exportation.

Prior to examining such exemptions, it important to understand the difference between the terms 'transit' and 'transhipment'. This is because Hong Kong's wide-ranging licensing provisions impact significantly on goods that are brought into Hong Kong with the intention of being on-forwarded to a third country. Essentially, the relevant statutory provisions require HKC&ED to treat such trading practices as two separate transactions – an importation into Hong Kong and an exportation from Hong Kong. As such, two licences are often required by law – an import licence and an export licence, regardless of whether the goods only remain in Hong Kong does not treat this type of trading arrangement as a special situation. This represents one particular area in which Hong Kong's legislative framework is quite restrictive. By treating all transactions as either an import or export, the legislative 'one size fits all' provisions fail to properly recognise the commercial realities of transhipment consignments. As discussed later in this section, however, the situation appears to be gradually changing.

Hong Kong defines an article in transit to mean an article which:

- (a) is brought in to Hong Kong solely for the purpose of taking it out of Hong Kong; and
- (b) remains at all times in or on the vessel or aircraft in or on which it is brought into Hong Kong (Import and Export Ordinance, Section 2).

Transhipment cargo, on the other hand, is defined to be any imported article that:

- (a) is consigned on a through bill of lading or a through air waybill from a place outside Hong Kong to another place outside Hong Kong; and
- (b) is or is to be removed from the vessel, aircraft or vehicle in which it was imported and either returned to the same vessel, aircraft or vehicle or transferred to another vessel, aircraft or vehicle before being exported, whether it is or is to be transferred directly between such vessels, aircraft

or vehicles or whether it is to be landed in Hong Kong after its importation and stored, pending exportation (Import and Export Ordinance, Section 2).

Hong Kong further defines air transhipment cargo to mean 'transhipment cargo that is both imported and consigned for export in an aircraft and which, during the period between its import and export, remains within the cargo transhipment area of Hong Kong International Airport' (Import and Export Ordinance, Section 2).

The WCO defines these terms differently. It defines Customs transit as 'the Customs procedure under which goods are transported under Customs control from one Customs office to another' (World Customs Organization, 1999, Guidelines on Specific Annex E). Essentially this refers to the transportation of goods between one customs post in the country (e.g. an airport) to another customs post in the same country (e.g. a sea port). The term 'transhipment' is defined by the WCO as 'the Customs procedure under which goods are transferred under Customs control from the importing means of transport to the exporting means of transport within the area of one Customs office which is the office of both importation and exportation' (World Customs Organization, 1999, Guidelines on Specific Annex E). An example of this would be the transfer of goods from one aircraft to another within the confines of an international airport.

Consequently, the Hong Kong and WCO definitions are at odds, with Hong Kong's use of the term 'transit' essentially equating to the WCO's usage of the term 'transhipment', and Hong Kong's use of the term 'transhipment' essentially equating to the WCO's usage of the term 'transit'. For example, a consignment arrives in Hong Kong as air cargo at Hong Kong International Airport, and is subsequently transferred to Kwai Chung, Hong Kong's container terminal, to be transported by sea to a third country. Hong Kong refers to this movement of cargo as a transhipment, whereas the WCO refers to it as transit cargo because it has been transported from one customs office (the airport) to another customs office (the seaport) for onward transport. To avoid confusion, for the purposes of this study the Hong Kong definitions are used, since the case study necessitates the need for frequent reference to Hong Kong's legislative provisions. This situation does, however, detract from the level of certainty and clarity for international traders who are required to adopt

different terminology within their operations in order to cater for Hong Kong's nonuniform definitions.

With the adoption of the Hong Kong definitions, the study proceeds to examine the range of exemptions to Hong Kong's licensing requirements. Such goods include the vast majority of articles in transit, which are exempted from licensing controls by virtue of Section 6A of the Import and Export Ordinance, Chapter 60 and Regulation 6 of the Import and Export (General) Regulations, Chapter 6A, Laws of Hong Kong. The only goods in transit that remain subject to licensing controls are those strategic commodities which are included in Schedule II of the Import and Export (Strategic Commodities) Regulations, Chapter 60G, Laws of Hong Kong, which includes specific munitions, nuclear-related materials facilities and equipment, encryption equipment, articles for a use relating to nuclear, chemical or biological weapons and documents containing technological information about such articles.

Certain transhipment goods are also exempted from licensing controls, by virtue of the Transhipment Cargo Exemption Scheme, for which the Trade and Industry Department has policy responsibility, and HKC&ED has responsibility to ensure compliance during the period of transhipment. The relevant legislative provisions under which the Transhipment Cargo Exemption Scheme operates are Regulation 6 of the Import and Export (General) Regulations, Chapter 60A and Regulation 11A of the Reserved Commodities (Control of Imports, Exports and Reserve Stocks) Regulations, Chapter 296A, Laws of Hong Kong. Goods to which the scheme applies include pharmaceutical products, medicines, rice, frozen meat, frozen poultry and pesticides.

Several conditions apply to this concession, which is only available to shipping companies, transportation companies, airline companies and their appointed agents, and is not intended for importers or exporters. Conditions include a requirement that the transhipment cargo is stored separately and that the goods remain under the physical control of the person who is registered under the Scheme while the cargo is in transhipment. In addition, registered persons are required to submit returns to the Department of Trade and Industry, and must maintain comprehensive records relating to the transhipment cargo, which must be available for examination by officers of HKC&ED whenever required.

Air cargo transhipments enjoy a broader, more general exemption from licensing requirements under the Air Cargo Transhipment (Facilitation) Scheme. The scheme, which was publicly mooted in October 1999 by the Chief Executive of Hong Kong in his annual policy address, is designed to liberalise the regulatory requirements for air cargo transhipments in order to encourage the use of Hong Kong International Airport as a major cargo hub. In his policy address, the Chief Executive noted:

The new airport is one of our major infrastructural achievements. Our international air cargo throughput already ranks among the highest in the world. We are in a position to expand the market by taking advantage of the advanced facilities of our new airport to provide diversified freight services for clients from a more extensive area. To this end, we will implement a liberal policy for air cargo services so as to further develop Hong Kong into an international and regional air cargo hub. This, in turn, will create more jobs in the supporting service industries (Hong Kong Chief Executive, 1999, point 31).

The Chief Executive's concept of an air cargo hub was driven by the changing mode of operation of the air cargo industry. As the air cargo business was becoming more and more global, involving more and more destinations to serve, the industry found it increasingly uneconomical and impractical to carry cargo from exporting countries to importing countries by direct flights. The hub concept is therefore designed to facilitate legitimate commercial operators, by enabling the airlines to pool their resources and maximise the use of their airlift capacity. In particular, it is intended that express cargo operators with a number of dedicated flights under their deployment, will be able to utilise the hub to complete an overnight process of deconsolidation, sorting and re-consolidation within about a three-hour time span, for service delivery the following day. For example, DHL Worldwide Express is now undergoing considerable expansion in Hong Kong as a direct result of this and similar liberalisation policies.

In order to make the hub concept commercially attractive, it was necessary to reconsider the need for the perceived excesses of regulatory imposts for transhipment cargo. In particular, the air cargo industry was concerned about the way in which air transhipment cargo was being treated as both import and export cargo, and therefore

subject to both import and export licensing controls (e.g. Business & Services Promotion Unit, 1999). The Government's solution was to provide a range of commodities with exemption from the need to obtain licences where goods are being transhipped within the confines of Hong Kong International Airport. As noted in chapter 4, any such facilitative arrangement requires an appropriate basis in legislation, which in this instance has been provided by the Air Cargo Transhipment (Facilitation) Ordinance (Ord. No. 29 of 2000), the provisions of which have since been integrated into four ordinances and fifteen regulations that regulate international trade, such as the Import and Export Ordinance, Chapter 60, Laws of Hong Kong and the Reserved Commodities Ordinance, Chapter 296, Laws of Hong Kong.

Introduction of the new arrangements followed a Government examination of all categories of air transhipment cargo to determine whether import/export controls could be relaxed. The Government concluded that such cargo should be accorded special treatment in view of the fact that such cargo is under the tight security control and close surveillance of HKC&ED at all times during its transhipment within the confines of the Hong Kong International Airport. As a result, it was determined that air transhipment cargo would be recognised as a special category of transhipment cargo residing in the Import and Export Ordinance. Note the linkage between the operational environment in which the cargo is being transhipped and the degree of facilitation which the Hong Kong Government is prepared to provide. This issue is dealt with in more detail in the analysis in chapter 10.

While not all types of goods are exempt from licensing controls under the Air Cargo Transhipment (Facilitation) Scheme (e.g. hazardous wastes, narcotic drugs and strategic commodities), the import/export control over a wide range of categories of 'non-sensitive' air transhipment cargo have been removed. Such goods include dutiable commodities such as alcoholic liquor and tobacco, radiocommunication transmitting apparatus, pharmaceutical products and medicines, optical disc mastering and replication equipment, rice, left hand drive vehicles, outboard engines, pesticides, certain food materials such as colouring matter and preservatives, meat and animal products, smokeless tobacco products and ozone depleting substances. Exemption from licensing controls for these commodities was determined following industry consultation and finally determined on the basis that the goods in question posed no

threats to public health, safety or internal security; the removal of licensing controls would not lead to disputes with Hong Kong's trading partners or breach any of Hong Kong's international obligations; and there was no other policy requirement for maintaining the particular licensing controls.

The final category of exemptions from import and export licensing controls are textiles traders who are registered under the Textiles Trader Registration Scheme (TTRS), which has as its statutory basis Regulations 5A and 6 of the Import and Export (General) Regulations, Chapter 60A, Laws of Hong Kong).

The scheme, which was introduced in 1993, is designed to facilitate legitimate trade in textiles and textile products without compromising the integrity of the control system. As noted earlier in this chapter, a trader who is registered under the scheme is able to import and export textiles without firstly obtaining a licence to do so from the Trade and Industry Department. Rather, the trader is able to, in essence, self-assess by preparing a notification for each transaction and submitting the notification to the transporter of the goods and to relevant authorities such as HKC&ED and the Trade and Industry Department. Once registered, traders may utilise the scheme's provisions to authorise the following transactions:

- □ import of textiles from all countries or places
- □ re-export of non-Hong Kong origin textiles to all countries or places
- textile exports of Hong Kong origin to non-restrained markets (that is, countries or places with which Hong Kong does not have a bilateral textiles agreement, i.e. countries other than Canada, the European Union, and the USA)
- export of properly marked textile samples of Hong Kong origin not exceeding US\$250 in free-on-board value and export of mutilated or stamped textile samples of Hong Kong origin of no commercial value, to USA
- □ all textiles transhipment cargoes (Trade and Industry Department 2003a).

Those traders who do not wish to participate in the scheme, or who fail to meet the relevant criteria, must continue to obtain import and export licences on a transactionby-transaction basis. The administrative flexibility provided by the scheme's legislative base therefore provides an opportunity to increase the level of facilitation accorded to those traders who are able to meet the standards required by the Trade and Industry Department, which essentially establish whether the trader is capable of properly self-assessing, and whether the trader can demonstrate a good record of compliance. As such, the scheme is considered to represent a good example of a risk-managed style of regulatory compliance management.

OTHER STATUTORY PROVISIONS

The importation and/or exportation of certain products is prohibited absolutely. For example, the importation of smokeless tobacco products is prohibited under the provisions of the Smokeless Tobacco Products (Prohibition) Regulations, Chapter 132BW, Laws of Hong Kong. The Food and Environmental Hygiene Department has policy responsibility for the prohibition, and HKC&ED has responsibility for ensuring compliance with legislative requirements at the point of import.

The importation, exportation and manufacture of articles that breach intellectual copyright laws are also prohibited absolutely. HKC&ED is the only Government authority responsible for investigating and taking criminal sanctions against such copyright and trade mark infringements in Hong Kong. Relevant legislation includes the Copyright Ordinance, Chapter 528, the Prevention of Copyright Piracy Ordinance, Chapter 544 and the Trade Descriptions Ordinance, Chapter 362, Laws of Hong Kong. For HKC&ED to instigate a criminal investigation, it is necessary for the owner of the intellectual property to prove the subsistence of copyright in the work alleged to have been infringed.

In addition to the laws relating to licensing controls and absolute prohibitions, a number of statutory provisions establish the regulatory requirements of carriers such as airlines, shipping lines and truckers when transporting prohibited articles (i.e. those subject to licensing controls), as well as more general requirements relating to the carriage of goods into or out of Hong Kong. In all cases, HKC&ED has the responsibility of ensuring compliance with the various provisions. To enable HKC&ED to determine what is being imported into or exported out of Hong Kong, the Import and Export Ordinance, Chapter 60, Laws of Hong Kong, establishes a fundamental requirement for all international cargo to be recorded in a cargo manifest and for carriers (or handling agents in the case of rail cargo) to submit the manifest to

Customs when requested to do so. This requirement applies to both imports and exports, regardless of the modes of carriage, i.e. air, sea, river, road or rail.

The provisions of the Import and Export Ordinance also require carriers of any imported prohibited articles to retain such goods in their possession until they are in receipt of a valid import licence, or until they are given specific permission by Customs to release the goods. Similar restrictions apply to prohibited articles that are intended for export. Carriers must not accept such articles for export unless they are in receipt of a valid export licence, or unless they receive formal notification from the Trade and Industry Department that a valid export licence has been issued. Similarly, the Reserved Commodities (Control of Imports, Exports and Reserve Stocks) Regulations, Chapter 296A and the Import and Export (General) Regulations, Chapter 60A, Laws of Hong Kong, impose corresponding restrictions in relation to reserved commodities and textiles, respectively. In the case of textiles that are intended for export, carriers may accept such articles from registered textiles traders on receipt of an export notification or transhipment notification.

In relation to dutiable commodities, carriers or freight forwarders are required to provide HKC&ED with a statement of all such commodities that have been imported or exported by them, within seven days of importation or exportation, or such longer period as the Commissioner may specify. There is also a requirement to lodge a nil return in instances where no dutiable commodities have been imported or exported during a particular period.

A further reporting requirement relating to import and export consignments is the requirement for importers and exporters to lodge an import or export declaration with HKC&ED within 14 days after the importation or exportation of the goods. This requirement, for which there are a number of exceptions (e.g. certain transit and transhipment consignments) is essentially required for statistical purposes. It is pertinent to note that this provision sets Hong Kong apart from most other countries, in that there is no requirement to submit the trade declaration (particularly the import declaration) as a prerequisite for customs clearance of the consignment. This issue is discussed in more detail in the following chapter, in which the administrative framework of HKC&ED is examined. However, from a legislative perspective, the absence of a requirement for traders to lodge a trade declaration prior to customs

clearance is itself considered to represent a significant facilitative measure for the international trading community, as it waives what would otherwise be a significant regulatory requirement. Similarly, however, the absence of such a requirement is considered to significantly reduce the capacity of HKC&ED to effectively identify potentially high-risk consignments. This issue is also addressed further in subsequent chapters.

To enable HKC&ED to monitor and control compliance with the broad range of statutory provisions for which they have administrative responsibility, the Customs and Excise Service Ordinance, Chapter 342, Laws of Hong Kong provides that all imports, exports and manifests are subject to Customs examination at any point of entry to or exit from Hong Kong, and at any place where cargo is stored prior to export or delivery to the consignee. The various ordinances and regulations with which HKC&ED must ensure compliance also provide some specific powers that enable customs officials to inspect imports and exports to determine whether they are prohibited articles (e.g. section 12 of the Import and Export Ordinance, Chapter 60, Laws of Hong Kong). Such provisions are in addition to the more general powers of customs officers, such as the power to stop, board and search vessels, aircraft and vehicles, the power to require the production of licences and other documents and the power to enter premises.

Further provisions of particular relevance to this study, include the requirement that imported goods may not be removed from the vessel, aircraft or vehicle in which they were imported, other than to a specified place (e.g. container terminal, rail terminal, warehouse, etc.) without the consent of HKC&ED. Similarly, HKC&ED may prohibit the owner of a specified place to remove, or permit the removal of, the goods from that place without their prior consent. In addition, HKC&ED is empowered to require an imported article to be removed from a vessel, aircraft or vehicle to specified premises in order to facilitate the customs examination of the article. The relevant provisions include sections 20A and 20B of the Import and Export Ordinance, Chapter 60, Laws of Hong Kong. The way in which HKC&ED is able to use these powers to manage compliance with the various trade-related laws is discussed in the following chapter.

ELECTRONIC TRANSACTIONS

In January 2000, Hong Kong enacted the Electronic Transactions Ordinance, Chapter 553, Laws of Hong Kong. Among other things, the Ordinance provides the necessary legal framework for communicating information electronically between the trading community, HKC&ED and other government agencies. According to Wu:

Before the passage of the Electronic Transactions Ordinance, a legal framework for e-commerce did not exist in Hong Kong. There is, however, a growing realization in Hong Kong in recent years that e-commerce can only achieve its full potential if there is a modern legal infrastructure that can support the growth of e-commerce (Wu, 2000, p.2).

Wu contends that the Ordinance is essential to the future development of e-commerce in Hong Kong, essentially due to its provisions that introduce a legal recognition of digital signatures. Wu further states that:

the Electronic Transactions Ordinance is unique in that it creates a new legal framework for a new business environment. It gives new legal meanings to such old concepts of 'signatures' and 'records' (Wu, 2000, p.3).

In introducing the proposed legislation, the Hong Kong Legislative Council (1999) argues that the introduction and widespread use of electronic commerce represents the driver of Hong Kong's future economic growth. The Legislative Council also acknowledges that:

while there have been attempts at adopting this new mode of business transactions, we have yet to tap the full potentials of electronic commerce to enhance Hong Kong's overall competitiveness. To promote the development of electronic commerce in Hong Kong, Government has decided to be a leading user of electronic transactions by launching the Electronic Service Delivery (ESD) scheme. Under ESD, the first phase of which will be implemented in the latter half of 2000, public services will be available online, 24 hours a day, seven days a week (Hong Kong Legislative Council, 1999, p.1).

In identifying that the primary purpose of the Electronic Transactions Ordinance is to provide the necessary basis for conducting electronic transactions in Hong Kong, including a legal mechanism that gives electronic records and digital signatures the same legal status as paper-based records and signatures, the Council indicates that it has attempted to achieve a 'technology-neutral approach' to the legislation, in order to ensure that the statutory provisions maintain their relevance in an environment of rapid technological advancement. In this regard, they state that:

in order not to constrain unnecessarily the development of electronic commerce, the Bill should – (a) adopt a technology-neutral approach to cope with rapid technological changes; and (b) adopt a minimalist regulatory approach (Hong Kong Legislative Council, 1999, p.2).

The latter point is of particular relevance to the manner in which Hong Kong legislators intend the provisions to be implemented, in particular their consideration of whether the use of electronic transactions should be mandated in any way. In this respect they comment:

While it is our policy objective to promote the wider adoption of electronic transactions in Hong Kong, we recognise that for the time being certain types of transactions would preferably be conducted through conventional means because of their solemnity, significance, complexity or other factors. In addition, some Government departments may not accept electronic information under a rule of law because of operational, technological or other reasons. In some other cases, while individual departments are prepared to accept electronic information under a rule of law, they may only be able to do so if such electronic information has been prepared in a specified format and using a specified type of software. Taking account of these considerations, we have included the following provisions in the proposed legislation whereby...a mechanism is provided to exempt by means of subsidiary legislation specific rules of law from the operation of the relevant provisions in the proposed legislation (Hong Kong Legislative Council, 1999, p.3).

Consequently, while the Electronic Transactions Ordinance provides for the replacement of paper-based documents with electronic documents, it does not impose

a requirement that all Government-related business must be undertaken electronically. Indeed, it may well take government authorities some time to provide the public with an electronic alternative to the present paper-based arrangements (e.g. Hong Kong Commerce & Industry Bureau (2002). In this regard, HKC&ED has adopted the view that, while dual systems (i.e. paper-based and electronic) may be necessary, and even desirable, in the short- to medium-term, the long term objective should be to transmit all documents electronically, in an effort to achieve a paperless trading environment. For example, the first HKC&ED system for which electronic transactions has been developed is the 'Electronic Data Interchange-Dutiable Commodities Permit' (EDI-DCP). The approach taken by HKC&ED in relation to EDI-DCP was for a dual system to operate during the initial six months of operation, following which the use of electronic transactions became compulsory (e.g. Wong, 2002).

While the Electronic Transactions Ordinance provides the overall statutory basis for introducing electronic transactions in Hong Kong, it is also necessary to incorporate enabling provisions into the primary legislation relating to the particular transactions that are being automated. For example, in automating dutiable commodity transactions, it was necessary to amend the Dutiable Commodities Ordinance, Chapter 109, Laws of Hong Kong, to give effect to the principles of the Electronic Transactions Ordinance. An example of this is section 3A of the Dutiable Commodities Ordinance, which provides that:

(1) Where information received by the Commissioner was sent using a recognized electronic service, evidence that shows that the identity of the sender of the information was authenticated by the use of a security device is, in the absence of evidence to the contrary, proof that the person issued with the security device -

- (a) furnished the information; or
- (b) made any statement or declaration contained in the information.

(2) Where information received by the Commissioner was sent using a recognized electronic service by a specified eligible agent who has obtained an authorization in accordance with section 3C, a person named in the information as the person who furnished the information or who made a statement or declaration contained in the information is, in the absence of

evidence to the contrary, regarded for the purposes of this Ordinance as the person who -

- (a) furnished the information; or
- (b) made the statement or declaration contained in the information.

Through the introduction of the Electronic Transactions Ordinance, Hong Kong has made significant progress towards the achievement of a more risk-managed style of regulatory compliance management (refer Table 4.1). Taking the EDI-DCP as an example, Hong Kong has introduced a legislative base which provides the trading community with electronic as well as paper-based mechanisms for meeting the regulatory requirements relating to dutiable commodities. The provision of electronic options for regulatory compliance in turn represents an enabler for HKC&ED to adopt a more risk-managed style of compliance management by allowing it to electronically receive, analyse, process and reconcile large volumes of data and to focus its resources on those transactions that are assessed to represent a higher risk.

The Electronic Transactions Ordinance also addresses the issue of the manner and format in which information may be communicated to Government authorities, by empowering such authorities to independently specify the particulars of such matters in individual ordinances. In this regard, section 11(2) of the Electronic Transactions Ordinance provides as follows:

The Secretary may, in relation to an Ordinance to which this Ordinance applies, specify by notice published in the Gazette-

- (a) the manner and format in which information in the form of an electronic record is to be given, presented or retained for the purposes of that Ordinance or a particular requirement or permission in that Ordinance or a class or description of requirements or permissions in that Ordinance; and
- (b) the procedure and criteria for verification of the receipt of that information and for ensuring the integrity and confidentiality of the information.

The manner, format and procedure that HKC&ED has specified under section 11(2) of the Electronic Transactions Ordinance is very broad in its application, and provides

the trading community with considerable choice and flexibility in relation to the language used and the manner in which the electronic records may be submitted, as well as types of file formats and digital signatures. Consistently, however, HKC&ED has restricted the range of options to internationally recognised standards. This is in full accordance with the requirements of the revised Kyoto Convention, which requires customs administrations to use relevant internationally accepted standards when introducing computer applications (World Customs Organization, 1999, Standard 7.2).

For example, HKC&ED provides traders with a number of language options. Records that are in English must be encoded in the American Standard Code for Information Interchange (ASCII), which is which is the predominant coding standard used in most English operating system environments, including Macintosh, Microsoft Windows 95/98 and Unix. For the far more difficult task of encoding records that have been prepared in the Chinese language, HKC&ED allows the use of 'Big-5', which is the standard that has been adopted in the traditional Chinese version of Microsoft Windows 95/98. The set of characters that may be used under this standard include a Hong Kong Supplementary Character Set which is published by the Government. Alternatively, the international coding standard for multi-language environments, ISO10646, may be used, which is the standard are those occurring in the Chinese-Japanese-Korean (CJK) Unified Ideographs character set (see Hong Kong Customs & Excise Department, 2003).

Electronic records may be delivered by electronic mail, provided they conform to the Simple Mail Transfer Protocol (SMTP), which is the generally used protocol for email sent via the Internet, and the Secure Multipurpose Internet Mail Extension (S/MIME) standard, which is required in those instances where a digital signature is used. Such records may be submitted to Customs by way of either floppy diskette or CD-ROM. Documents may be saved for submission in one of a number of formats, including plain text, Microsoft Rich Text Format, Hypertext Mark Up Language Format (HTML), which is the standard format for web pages, and Adobe Portable Document Format (PDF), i.e. Adobe Acrobat PDF format. Similarly, graphics may be submitted in a variety of formats, including Encapsulated PostScript Files (EPSF), which is an Adobe Systems product, Tag Image File Format (TIFF), another Adobe Systems

product, Microsoft Corporation's Windows BitMaps (BMP), CompuServe's Graphic Interchange File Format (GIF), or Joint Photographic Experts Group (JPEG), which is promulgated by the International Organization for Standardisation (ISO) and the International Telecommunication Union (ITU). For Computer Aided Design (CAD) drawings, Autodesk's Drawing Exchange Format (DXF) is generally acceptable, but in certain circumstances other formats may be accepted (e.g. Hong Kong Customs and Excise Department, 2003).

CURRENT INITIATIVES

As a result of an extensive review of HKC&ED cargo clearance arrangements (Business & Services Promotion Unit, 2000), a number of legislative amendments are currently being progressed. The purpose of the review was to ensure that Hong Kong's Customs cargo clearance arrangements are effective and efficient for enforcement and control purposes, whilst maintaining an open and business-friendly environment for traders. The review recommended the introduction of a range of cargo clearance arrangements that were designed to provide an appropriate balance between facilitation and control, while achieving high levels of both. As such, HKC&ED is currently undertaking a reform program that will allow it to move further towards a risk-based compliance management framework that is reflective of the conceptual model.

All recommendations of the review have been accepted, including a range of legislative amendments relating to physical and documentary controls, reporting requirements and other responsibilities of traders and service providers. These include the lodgement of import manifests prior to customs release of cargo, submission of export cargo data prior to departure and release of import cargo on customs authority. Recommendations requiring specific legislative amendment prior to their introduction include:

Recommendation 5: With the introduction of electronic manifest reporting, import manifests must be presented to Customs for all modes of transport prior to release of the cargo.

Recommendation 7: With the introduction of electronic manifest reporting, allow carriers to report cargo manifests progressively and to amend and add to manifests previously submitted, prior to arrival.

Recommendation 8: With the introduction of electronic manifest reporting, introduce a system for notification and control of manifest exceptions.

Recommendation 9: Export manifests should continue to be presented prior to departure for road and rail cargo. With the introduction of electronic manifest reporting, export cargo data must be submitted prior to departure for all other modes of transport.

Recommendation 11: Following the introduction of electronic manifest reporting, import cargo may only be released following specific Customs authority to do so.

Recommendation 41: With the introduction of release of cargo only on Customs authority, the Terminal Operator, or other person having physical control over the cargo, should be responsible for physical security of cargo during loading or discharge of the cargo.

Recommendation 42: With the introduction of release of cargo only on Customs authority, the Terminal Operator, or other person having physical control over the cargo, should be responsible for the physical security of cargo during its storage (Business & Services Promotion Unit, 2000).

Three of the proposed provisions will have a particularly significant impact on the manner in which HKC&ED manages its compliance responsibilities relating to international trade – i.e. recommendations 5, 9 and 11. Essentially, these provisions will collectively ensure that HKC&ED is provided, as a matter of course, with information relating to imports and exports prior to the goods being exported or imported, thereby providing a reasonable knowledge base upon which decisions about customs clearance and cargo release can be made. This has not previously been the case, and the introduction of these provisions is therefore considered to represent a significant step towards redressing an apparent imbalance between the respective responsibilities of Customs and industry in ensuring compliance with trade
regulations. The imbalance is quite significant when also taking account of the fact that traders are not obliged to submit any trade declarations (i.e. declarations providing comprehensive details about the individual items that are contained within a consignments) prior to obtaining customs clearance.

It is pertinent to note that all such provisions are dependent upon the introduction of automated processing arrangements, due to the time-sensitive nature of many types of consignments, particularly transhipment cargo. This issue, which is further examined in later chapters, reinforces the conceptual model's identification of an effective information technology infrastructure as being a key enabler to achieving the risk-based style of compliance management envisaged by the model.

SUMMARY – STATUTORY FRAMEWORK

Whilst Hong Kong promotes itself as a free port, certain commodities are subject to duties if imported, and many articles are subject to licensing controls. This results in a relatively complex legislative regime for international trade, but one which is progressively being simplified.

A significant progression towards a more liberal statutory regime has been heralded by the introduction of regulatory concessions for air cargo transhipments and certain goods that are subject to licensing controls. These initiatives have introduced a more flexible approach to regulatory control by recognising that cargo movements within certain regulatory environments, such as the highly secure confines of the Hong Kong International Airport, and goods that are handled by compliant traders and service providers, may be treated more liberally than other less secure, and hence higher risk transactions.

The passage of the Electronic Transactions Ordinance and the subsequent incorporation of its principles into customs legislation represents a further step towards a statutory framework which reflects a risk-based style of compliance management, consistent with the conceptual model, by seeking to exploit the benefits of an electronic processing environment. This transition is currently being accelerated through the introduction of legislative provisions which recognise the concept of joint responsibilities in ensuring compliance with trade regulations, and which seek to redress the current imbalance of responsibilities between customs and industry.

7. HONG KONG ADMINISTRATIVE FRAMEWORK

This chapter examines HKC&ED's administrative framework in the context of the conceptual framework described in chapter 4. Initially this involves examining a range of general administrative issues that impact on compliance management relative to all modes of cargo, followed by an examination of specific issues relating to air cargo, sea cargo, river cargo, road cargo, rail cargo, multi-modal cargo and warehoused cargo. It concludes by examining identified trends in the manner in which HKC&ED is approaching its administrative responsibilities in respect of international trade compliance.

GENERAL

Mission and Objectives

HKC&ED is classified as one of Hong Kong's 'disciplined services', along with the police and fire services. Its stated mission (Hong Kong Customs & Excise Department, 2002) is:

- □ to protect the Hong Kong Special Administrative Region against smuggling
- □ to protect and collect revenue on dutiable goods
- □ to detect and deter narcotics trafficking and abuse of narcotic drugs
- □ to protect intellectual property rights
- □ to protect consumer interests
- to protect and facilitate legitimate trade and industry and to uphold Hong Kong's trading integrity
- □ to fulfil international obligations.

Simply put, the customs objectives are twofold - to prevent and detect the smuggling of goods, such as dangerous drugs, pirated articles and counterfeit goods, and to ensure that the importation, exportation and transhipment of goods are in accordance with licensing and other statutory requirements. The strategies employed by HKC&ED to achieve this must fit within the legislative confines of Hong Kong's

statutory provisions. As noted in the previous chapter, Hong Kong's cargo clearance requirements are unique in that there is no requirement for traders to provide customs with an import or export declaration as a prerequisite for importing goods into, or exporting goods out of Hong Kong. Furthermore, there is no requirement for carriers such as airlines, shipping companies and truckers to provide customs with a copy of the cargo manifest prior to arrival unless specifically requested to do so, on a case-by-case basis. This situation is, however, expected to change within the next one or two years, with the introduction of electronic systems (which are examined in chapter 8), together with the new legislative provisions that will require cargo information to be submitted to Customs prior to goods being exported or imported, which were discussed in the previous chapter.

The administrative impact of the legislative provisions as they currently stand presents HKC&ED with a particularly difficult task in attempting to manage compliance. For example, under the current legislative arrangements, river cargo may be imported and discharged at any place within Hong Kong without the need for prior permission from HKC&ED, or indeed the need to inform authorities about the vessel, its cargo, or the intended place of discharge. This is in stark contrast to the requirements of most countries, which call for all cargo manifests and goods declarations to be provided to the customs authorities prior to the release of the goods. The current situation, which permits the importation and exportation of goods to proceed without the need to provide any details of the transaction the customs authorities, unless specifically requested to do so, is considered to essentially represent a legacy from Hong Kong's traditional 'free port' status.

This situation, which represents something of an extreme in terms of the level of facilitation provided to traders, presents HKC&ED with a number of difficulties in relation to the amount and type of information that is available to its decision-makers in carrying out their regulatory control responsibilities. For example, unlike most other customs administrations, HKC&ED is unable to verify the details on the trade declaration at the time of importation or exportation, or to cross-check, on a real-time basis, the details contained in the trade declaration, which is submitted by the trader, with those contained in the cargo manifest, which is submitted by the carrier. Furthermore, the unavailability of the trade declaration at the time of importation or exportation the trade declaration at the time of importation or exportation heads to a requirement for customs officials to focus their attention on

information contained in the cargo manifest, together with a physical examination of the goods themselves, in order to determine whether legislative requirements have been met. This impediment serves to explain why HKC&ED's administrative approach to regulatory compliance is heavily focussed on the receipt and analysis of manifest information, and the physical control over goods, the latter being representative of a 'gatekeeper' style of compliance management.

Despite this disadvantage, Hong Kong appears to be committed to providing the trading community with internationally accepted levels of facilitation. For example, the Hong Kong Commissioner of Customs & Excise states:

To meet proactively the demands in association with our dual role as an enforcement agency and a trade facilitator without compromising the integrity of our control system, we have ventured to further promote the use of intelligence and risk management in our operations with the back-up of extensive application of information technology (IT) (Wong, 2002, p.1).

Wong further states:

We will continue to take all necessary measures to facilitate the flow of logistics by way of improving facilities at the control points, simplifying rules and procedures for cargo clearance, developing relevant IT projects, maintaining close liaison with our Mainland counterparts and entering into partnership with the industry. We will continue to work hard to review and look for initiatives to fulfil our dual role as the gate-keeper and trade facilitator (Wong, 2002, p.11).

The Commissioner's views are supported by the policy departments, such as the Trade and Industry Department which has policy responsibility for strategic commodities, among other things. According to the Trade and Industry Department, the Hong Kong Government's policy towards import and export controls, even in respect of such politically sensitive items as strategic commodities, involves providing a balance between regulatory control and trade facilitation:

Tipping the balance between trade control and trade facilitation, the Government would on the one hand, implement proper control on the imports

and exports so as to prevent Hong Kong from being used as a conduit for the proliferation of weapons of mass destruction, and on the other, ensure that controls are administered efficiently to avoid causing disruption to legitimate trade (Hong Kong Trade and Industry Department, 2003c, p.5).

Interviews with officers of HKC&ED indicate a general agreement with the Commissioner's statement. However, whilst there is a perceived need to facilitate trade, particularly in view of mounting community and political pressure to do so, there is still an underlying concern that increased facilitation may translate directly to a loss of regulatory control. This concern may be due to an underlying culture of control that has resulted from HKC&ED's positioning as a disciplined service, and Hong Kong's traditional position as a free trade port. In such an environment, the customs role has been primarily one of detecting and prosecuting instances of smuggling and similar unlawful activities.

In performing this role, the approach which has been adopted has been generally reflective of the 'gatekeeper' style of compliance management, including a control and enforcement focus and a preoccupation with assessing compliance at the transaction level by way of real-time intervention. As time has progressed, and more and more commodities have been required to be monitored by Customs as a result of Hong Kong's burgeoning system of licensing controls and trade prohibitions, particularly textile products and strategic commodities, HKC&ED has been required to re-think its administrative approach to compliance management. This effectively resulted from the increasing need for HKC&ED to screen all imports, exports and transhipments, in order to identify potentially unlawful transactions.

However, HKC&ED appears to have also recognised the importance of providing the trading community with quality information to assist them in meeting their compliance responsibilities. Following the USC principle of 'informed compliance', HKC&ED's level of industry consultation and assistance is noticeably increasing through the introduction or enhancement of a range of initiatives including industry forums, user surveys, assistance hotlines and improved web services. For example, in December 2001, a One-Stop Advisory Centre for Cargo Clearance Matters was launched on the customs website, which provides information, downloadable forms and frequently asked questions relating to import and export declarations, cargo

clearance procedures, prohibited articles and the associated licensing and permit arrangements, temporary imports and exports, together with links to information relating to international trade regulations administered by other government agencies (see Wong, 2000). Such developments are indicative of the client service elements of compliance management espoused by the conceptual model.

Such an initiative is indicative of a more risk-based style of compliance management, and is reflective of the types of 'client service' elements of compliance management identified in the conceptual model (refer Figure 4.7). Similarly, HKC&ED has recognised that, in certain areas of its administrative responsibility, the use of enforcement methods is not always likely to be effective in producing the required outcomes. For example, in its efforts to manage compliance with intellectual property laws, HKC&ED identifies education and awareness as a potentially effective compliance management technique:

Copyright piracy is a social problem, which cannot be solved by enforcement actions directed against the suppliers of pirated goods alone. As long as there are demands for pirated goods, pirates could still find niches to survive from our stringent enforcement actions. The public must be educated to respect intellectual property right and refrain from buying pirated goods (Hong Kong Customs & Excise Department, 2002a, p. 2)

Integrity Issues

It is widely recognised that customs administrations throughout the world are vulnerable to corrupt practices, and that such practices can result in considerable disruption and a damaging lack of certainty for the international trading community. According to the Secretary-General of the WCO:

There are few public agencies in which the classic pre-conditions for institutional corruption are so conveniently presented as in a Customs administration. The potent mixture of administrative monopoly coupled with the exercise of wide discretion, particularly in a work environment that may lack proper systems of control and accountability, can easily lead to disruption (Shaver, 1999).

The values to which HKC&ED adheres in achieving its mission include that of integrity: 'Professionalism and Respect; Lawfulness and Justice; Accountability and Integrity; Foresight and Innovation' (Hong Kong Customs & Excise Department, 2002). Unlike most countries in the South East Asian and Indochina region, issues of officer integrity do not appear to be a significant problem in Hong Kong. For example, the Chief Executive of Hong Kong states:

Among the many fundamental strengths that Hong Kong possesses, I am particularly proud that we are rated as one of the least corrupt places in the world, according to the Corruption Perceptions Index released by Transparency International in August 2002 (Hong Kong Chief Executive, 2003, p.1).

This conclusion has also been independently reached as a result of interviews with members of the international trading community in ten countries throughout the region, who unanimously conclude that HKC&ED is virtually corruption-free and that issues of customs officer integrity are unlikely to impact on the international trading activities of the country. This may be due to the fact that Hong Kong civil servants enjoy a significantly higher level of remuneration than their regional counterparts, thereby reducing the incentive for bribery and similar corrupt practices.

To reinforce its expectations of high levels of integrity, HKC&ED maintains a comprehensive Code of Conduct (Hong Kong Customs & Excise Department, 2002b) which is rigorously enforced. According to a past-Commissioner:

Customs has taken a top-down approach with the senior staff leading from the front in promoting integrity in our organisation, and we have employed the OPEN process of 'Ownership, Participation, Effective Communication and Nurturing Environment' to drive and sustain the integrity message among our staff as well as to strengthen our systemic controls to deter possible abuses and to detect malpractices (Tsang, 2000, p.6).

Political Imperatives

The political imperatives being faced by Hong Kong are quite different now compared with only a few years ago. The handover of Hong Kong by the British to

the Chinese in 1997 cemented Hong Kong's future as part of the People's Republic of China. As previously noted, however, while its current status is a Special Administrative Region of China, it continues to exercise sovereignty over its borders, including its border with Mainland China. Nevertheless, Hong Kong has a vital interest in ensuring that the movement of goods between Mainland China and Hong Kong are as seamless as possible, in view of the fact that over 80 per cent of Hong Kong's international trade relates to transhipments between Mainland China and third countries (e.g. Business & Services Promotion Unit, 2000). This is because China's accession to the WTO in 2001, which has resulted in increased direct trading activity between China and the rest of the world, appears to have brought into question the future of Hong Kong's traditional role as the trading gateway to China (e.g. Hong Kong Port & Maritime Board, 2001).

Hong Kong has two primary concerns in relation to such transhipment cargo. Firstly, it needs to ensure that transhipment goods are in fact re-exported, and that they do not enter the domestic market. Secondly, it must ensure that its international obligations relating to trafficking in illicit goods are upheld. In this context, HKC&ED's primary focus appears to be dangerous drugs, weapons, controlled chemicals, strategic commodities, textiles, intellectual property rights (IPR) infringements and dutiable commodities.

With the emergence of increased opportunities for direct trade between Mainland China and third countries, Hong Kong has been forced to address ways in which its position as a leading international and regional transhipment and logistics hub may be maintained. There is consequently increasing political pressure for customs to facilitate the movement of cargo, particularly the significant proportion of transhipment cargo that crosses its borders (Hong Kong Port & Maritime Board, 2001), and as a result, the political expectation of HKC&ED is rapidly shifting from a control-focused organisation to one which seeks to provide high levels of trade facilitation. Equally, however, there is an ongoing expectation that Customs will continue to ensure compliance with Hong Kong's extensive trade laws, particularly in relation to politically sensitive goods such as strategic commodities. The way in which HKC&ED is addressing this challenge varies considerably depending on the type of cargo concerned. The following sections examine the administrative approach to compliance management being pursued by HKC&ED for each mode of cargo.

AIR CARGO

Operational Environment

All international air cargo enters and leaves Hong Kong through Hong Kong International Airport, located at Chek Lap Kok on Lantau Island. The airport is operated by a fully Government-owned statutory body, the Airport Authority Hong Kong. Hong Kong International Airport ranks the largest in the world in terms of international air cargo throughput, handling about 2.5 million tonnes of cargo during 2002, and having a current capacity of about 3 million tonnes per year, or about 8,000 tonnes per day (e.g. Airport Authority Hong Kong, 2002 and 2003).

The majority of cargo is handled through two modern, highly automated air cargo terminals. The largest of these, Super Terminal 1, incorporating an Express Cargo Terminal, is the world's largest stand-alone air cargo handling facility, with a throughput capacity of 2.6 million tonnes of air cargo per year. The terminal houses four of Hong Kong's seven air cargo operators, including the terminal operator, Hong Kong Air Cargo Terminals Limited (HACTL), and three international air express operators, DHL, TNT and UPS. The second of Hong Kong's air cargo terminals is the Asia Airfreight Terminal facility, which has a handling capacity of 0.4 million tonnes per year. It is operated by Asia Airfreight Terminal Company Limited (AAT), and also houses the fourth air express operator, Federal Express.

A multi-modal facility, the Marine Cargo Terminal, is also situated at the airport. The Marine Cargo Terminal, operated by the Chu Kong Air-Sea Union Transportation Company Ltd (CKSA), has been established to provide cargo facilities linking the airport and 20 river ports in the Pearl River Delta. Additional cargo facilities at Hong Kong International Airport include the Airport Freight Forwarding Centre, which essentially operates as a warehouse complex for storage, cargo consolidation and related logistics operations, and an Air Mail Centre, for handling international mail (see Airport Authority Hong Kong, 2003).

Proposed future developments of particular relevance to this study include a Logistics Centre, designed to provide logistics and supply chain management services, and an Express Cargo Terminal, which is likely to become Asia's largest air express cargo hub. In October 2002, the Airport Authority announced that DHL had been awarded a 15-year contract to develop and operate the centre (Tsang & Poon, 2002). The apparent commercial viability of the proposed Express Cargo Terminal, considering the already extensive air cargo facilities available in Hong Kong, highlights the country's current standing as a leading international trading hub.

Super Terminal 1, the Express Cargo Terminal, the Asia Freight Terminal and the Air Mail Centre are all classified as Tenancy Restricted Areas, which means that the tenants rather than the Airport Authority are responsible for ensuring the security of the facilities. The security standards required of the tenants are extremely high, with tight physical controls exercised over the movement of goods at all points of entry and exit. Combined with the overall security infrastructure for those areas and activities which come under the direct control of the Airport Authority, Hong Kong International Airport is considered to be a highly secure operating environment.

Customs Procedures

The processes and procedures that HKC&ED applies to air cargo are far more sophisticated than those which it applies to any other mode of cargo (e.g. sea cargo, road cargo, etc.). This is essentially due to the fact that air cargo processing is highly automated, whereas the customs processes for other modes are generally manual, and very labour-intensive. The Air Cargo Clearance System (ACCS), which is discussed in greater detail in the following chapter, is capable of electronically receiving and processing air cargo data, and advising cargo operators of the customs status of the goods (i.e. whether the goods may be released, whether more information is required, or whether the goods are to be physically detained for customs inspection). As such, the system provides a link between Customs and each of the seven cargo operators, i.e. HACTL, AAT, CKSA, DHL, UPS, TNT and Federal Express, with whom HKC&ED has signed Memoranda of Understanding. In essence, ACCS provides HKC&ED with an automated research and analysis capability that enables it to rapidly screen details of thousands of import and export consignments and to identify those which may require further action.

It is pertinent to note that the Memoranda of Understanding with cargo operators go beyond issues relating to the establishment of an electronic interface between the parties, but also addresses the broader principles of cooperation between Customs and the international trading community. As such, the agreements are reflective of the consultative, cooperative approach identified in the conceptual model. Among other things, the parties agree to develop ways of improving the level of cooperation and consultation in order to achieve an effective balance between customs control and the facilitation of legitimate trade. This cooperative approach is further demonstrated by the existence of the Air Cargo Customer Liaison Group, comprising HKC&ED and key stakeholders in the air cargo industry. The group, which has been in operation since 1994, meets every three months to discuss issues of mutual concern with a view to arriving at a mutually agreed outcome.

In terms of the actual Customs clearance process for air cargo, the basic elements from a customs perspective include:

- □ receiving information about the cargo, including transhipment cargo, at consignment level
- verifying the integrity of the data
- **u** analysing the data to determine an appropriate course of action
- □ advising industry of the decision
- □ undertaking any necessary follow-up action.

In facilitating the customs clearance process, ACCS provides for the electronic receipt, verification and analysis of the data, following which cargo operators are notified of the customs status of the consignment electronically. Consequently, the provision of electronic processing systems is in itself a facilitative measure for industry. In extending the level of facilitation, HKC&ED permits the electronic submission of cargo data up to three hours prior to flight arrival. This enables the customs status to be determined at or before the arrival of the aircraft, thereby enabling a customs status to be communicated to cargo operators prior to discharge of the cargo.

It should be noted that, whilst in practice the cargo data is submitted to ACCS by the cargo terminal operators, the carriers (i.e. the airline companies) have a legal responsibility for providing a manifest to Customs at the time of flight arrival. Consequently, even though all consignment information may have been received and processed electronically prior to flight arrival, HKC&ED still insists on the

submission of a paper manifest by the carrier at the time of flight arrival. On receipt of the paper manifest, Customs cross-matches the electronic data and the paper manifest through a computer technique known as hash total matching. Not surprisingly, discrepancies between the paper manifest and the previously submitted cargo data are extremely rare.

The reason for this seemingly excessive requirement is essentially political. To facilitate the widespread use of EDI and other information technology-based business solutions in Hong Kong, the Government entered into a commercial agreement with Tradelink Electronic Commerce Ltd (Tradelink) in 1992. The agreement requires Tradelink to provide an electronic Community Gateway for the exchange of certain trade-related data, including manifest data, between the trading community and Government departments, with a seven-year franchise being granted for this purpose, commencing on 1 January 1997. Consequently, if the Government were to receive electronic manifest data directly from the industry prior to the expiration of Tradelink's franchise at the end of 2003, it would be in breach of the agreement. In order to ensure that it honours the agreement, HKC&ED receives 'consignment data' electronically, and 'manifest data' in paper format. However, the difference between the two data sets is somewhat semantic, since the totality of the consignment data is the equivalent of the manifest data. Such a situation is not reflective of a facilitative approach to regulatory control, as it imposes an unnecessary burden on commercial operators. However, it is anticipated that this issue will be resolved once the Tradelink franchise expires. The matter is further discussed in the following chapter, in the context of third party service providers.

As previously noted, the process of identifying consignments that may require some form of verification (e.g. documentary check or physical examination) prior to customs clearance is facilitated significantly through the availability of the ACCS system. However, manual screening may also be undertaken by the Customs Air Cargo Research Division, and the ACCS customs status may be manually overridden if considered appropriate. A final customs status is generally issued within 45 minutes of receipt of the paper manifest and the cargo operator will be advised accordingly. The reason for the selection (known as the 'constraint code') is, however, only known to Customs, and a 'masked code' is forwarded to the cargo operator. At the time of the study, about 50 per cent of all air cargo received clearance prior to arrival. Unless a consignment is selected for further customs action, it may be delivered to the consignee upon its arrival. All other consignments are detained in the cargo terminal pending completion of customs formalities, following which the consignment may be released. In this regard, HKC&ED has issued a 'performance pledge', i.e. a publicly reported performance standard, to clear detained air cargo within 80 minutes from the time a cargo examination is requested.

Similar procedures are in place for export consignments, although there is currently no mandatory requirement for airlines to submit export manifests unless specifically requested to do so by Customs. In other words, export manifests are called for and submitted on an exception basis only. As is the case with import consignments, cargo operators are able to submit export consignment data electronically via ACCS, and HKC&ED notifies cargo operators electronically of those consignments that are to be held for further customs action. Cargo selection is facilitated by way of electronic profiles that contain details of targeted traders and controlled commodities such as strategic commodities and controlled chemicals.

In respect of air cargo, the ability to apply risk-based compliance management procedures is essentially due to the high level of automation which serves to automate the customs clearance process. With the support of such an enabler, the customs administrative arrangements are generally reflective of the risk-based compliance management style depicted in the conceptual model (see Table 4.1 and Figure 4.7). This includes a dual enforcement/client service focus, a consultative, cooperative approach and a balance between regulatory control and trade facilitation. What is not apparent, however, is a focus on post-transaction compliance assessment or an assessment of the systems and procedures of traders, as opposed to individual transactions.

SEA CARGO

During 2002, some 215,000 vessels called at the port of Hong Kong and the total container throughput during that year was 17.8 million TEUs (Twenty-foot Equivalent Units), making Hong Kong the busiest container port in the world (Hong Kong Port & Maritime Board, 2002).

Two quite different types of international trading vessels operate in Hong Kong. Approximately 80 international shipping lines operate ocean-going container vessels with services to over 500 destinations worldwide, including Mainland China, while much smaller river trading vessels transport cargo between Hong Kong and ports throughout the Pearl River Delta. This section examines the administrative framework associated with ocean-going vessels, while the river trade is examined in the following section.

Operational Environment

The majority of ocean-going container vessels berth at Hong Kong's main container port, Kwai Chung Container Port, which is capable of accommodating 18 ocean-going container vessels. Located in the north-western section of Hong Kong harbour, Kwai Chung's facilities include container yards and container freight stations. The container vessels are also able to berth at the numerous (approximately 60) mid-stream mooring buoys and anchorages that have been established throughout Hong Kong harbour. When berthing mid-stream, their cargo is loaded and discharged by a fleet of barges, which shuttle between the mooring buoys and the eight Public Cargo Working Areas which line the harbour. In addition, there are a number of bulk handling facilities for coal and oil at Tap Shek Kok and Po Lo Tsui. In 2001 the international cargo throughput for both sea and river totalled 179.3 million tonnes, of which 130.3 million tonnes (or about 73 per cent) was carried by ocean-going vessels (Hong Kong Census & Statistics Department, 2003).

The container terminals at Kwai Chung are relatively secure, with fairly stringent procedures for allowing goods to enter and exit the areas managed by the Container Terminal Operators. The Public Cargo Working Areas, on the other hand, have very little, if any, security arrangements in place. Consequently, while HKC&ED is generally able to rely on the commercially developed security facilities and procedures in place at the Kwai Chung container terminals, they must assume that no physical security arrangements exist outside that area.

The container facilities are currently in the process of significant expansion, with a new container terminal, Container Terminal 9, being built on Tsing Yi Island, across

the harbour from the eight existing terminals at Kwai Chung. The new terminal will have six berths, designed to handle 2.6 million TEUs per year (e.g. Lau, 1998).

Members of the international sea cargo trading community include the four major cargo terminal operators at Kwai Chung, i.e. Hong Kong International Terminals Ltd., Modern Terminals Ltd., Sea-land Orient Terminals Ltd. and COSCO-HIT Terminals (Hong Kong) Ltd. In addition, there are some 80 shipping companies and more than 1,000 shipping agents and freight forwarders. In line with the consultative arrangements that have been put in place with the air cargo industry, HKC&ED has established a Sea Cargo Customer Liaison Group which meets every three months to address issues of mutual concern, with a view to achieving mutually agreeable outcomes.

Customs Procedures

Unlike the procedures applying to air cargo, manual customs processing procedures currently apply to sea cargo. Furthermore, there is no mandatory requirement for shipping companies or their agents to submit copies of either the import or export cargo manifest to customs unless specifically requested to do so. This presents HKC&ED with three main problems. Firstly, the impending arrival or departure of a vessel must be known to customs. Secondly, if a manifest is submitted, it is provided in paper format, thereby limiting the degree of automated processing and analysis that may be undertaken. Thirdly, and of particular importance from a customs control perspective, a manifest for containerised sea cargo will contain only higher level information about the cargo, and is unlikely to provide detailed information about individual consignments, particularly where such consignments form part of a consolidation.

The first of these issues, i.e. knowledge about the impending arrival or departure of a vessel, has already been addressed through the Marine Department's requirement for shipping companies or their agents to report movements of all vessels with a gross weight greater than 300 tonnes at least 24 hours prior to their arrival and departure. Vessel movement data is held in the Marine Department's Vessel Traffic Management System (VTMS), to which HKC&ED has access. This information is supplemented by research undertaken by HKC&ED, to ensure that operational areas

are cognisant of impending vessel movements, including such details as the vessel's name, the of vessel, estimated time of arrival and departure, berth, proposed itinerary and shipping agent.

It appears that the second issue, i.e. the submission of data in paper format, is soon to be addressed with the Hong Kong Government's introduction of an EDI Cargo Manifest (known as 'EMAN'). The funds for such a system were approved in mid-1999, and it was originally intended to introduce EMAN by June 2001, with compulsory usage by 1 January 2002 (see Business & Services Promotion Unit, 1999). Reasons for the delay in introducing EMAN are discussed in the following chapter, but essentially they relate to technical and financial concerns raised by the trading community.

Other customs administrations, such as the Australian Customs Service, South African Revenue Service and U.S. Customs Service, have addressed the third issue, i.e. the limited amount of information that shipping companies include on shipping container manifests, by requiring freight forwarders and co-loaders to submit data at the house bill level (i.e. individual consignment level), or for these operators to supply the relevant information to the shipping companies, who will in turn submit the information to Customs. This is also how HKC&ED proposes to address the issue, but is faced with the task of gaining the support of the trading community prior to proceeding. In this regard, the option of having shipping companies or their agents acting as a post-box does not sit comfortably with the freight forwarders, who regard house-level data to be commercially sensitive, as it contains commercial information about their client base. It appears likely that HKC&ED will ultimately elect to obtain such data directly from the freight forwarders, and it is noted that the introduction of electronic manifest reporting should facilitate such a decision.

Due to the unavailability of trade declarations at the time of vessel arrival or container discharge, HKC&ED must rely upon an analysis of vessel and manifest information in order to identify those shipments that may require customs examination. Consequently, unlike air cargo assessments, which are based on data relating to the lowest transaction level (i.e. individual consignments), the selection of sea cargo involves a top-down approach. This involves:

- identifying vessels 'of interest', i.e. high-risk (the process of selection is discussed in Chapter 9 which examines the risk management framework)
- obtaining manifest details relating to the selected vessels from the shipping agent and identifying containers 'of interest' from the manifest
- obtaining details of consignments shipped in the selected containers from freight forwarders
- □ determining which shipments should be examined.

This is considered to be an extremely cumbersome process, but is recognised as the only process available to HKC&ED pending the mandatory electronic submission of cargo details at house-bill level, and reinforces the contention that an appropriate information technology framework is a key enabler for achieving the benefits of an effective risk-based style of compliance management.

As a result of this process, about 20 per cent of container vessels are selected for further analysis. HKC&ED advise shipping agents and container terminal operators of their decision to select a vessel for further analysis on an exception basis. Consequently, if no advice is received from customs, the vessel's cargo may be discharged and delivered to consignees upon vessel arrival, without any customs intervention, on the understanding that all statutory requirements are met, including any licensing requirements. For those vessels that are selected for further analysis, the relevant shipping companies and container terminal operators are advised that no consignments on the vessel may be released pending finalisation of customs action, and are required to provide customs with the cargo manifest either prior to, or at the time of vessel arrival. Within 48 hours of receiving the manifest data, HKC&ED determines which of the vessel's consignments are to be detained, and allows the remainder to be released. The 48 hour timeframe is based on an administrative agreement between HKC&ED and the industry, and has no statutory basis.

In an effort to facilitate the movement of low-risk consignments, HKC&ED attempts to identify the particular consignments that are to be detained prior to arrival of the vessel, thereby allowing all those consignments which are not of concern to Customs to be released upon the arrival, provided that all statutory requirements are met. In view of the manual and somewhat labour-intensive processes currently involved in selecting sea cargo, such pre-arrival identification is dependent upon the timely receipt of the manifest data from the shipping agent, but even then the process is not considered to be very efficient or indeed effective. Once the processes are automated, however, pre-arrival selection and advice should be achievable as a matter of course. In the interim, priority clearance arrangements have been established to ensure that time-sensitive shipments, such as perishable items and those requiring urgent transhipment to an outbound vessel, are not unduly delayed.

Customs examinations will generally be conducted at one of the Kwai Chung container terminals. However, if consignees request to have the examination conducted at an alternate location, such as the warehouse where the container is to be 'devanned' (i.e. unstuffed), HKC&ED will generally concur with the request. The availability of officers to undertake an examination away from the container port may, however, impact on the timing of the examination. In terms of export cargo, HKC&ED operational procedures include routine checks of 'vanning' (i.e. container stuffing) activities at the Kwai Chung container terminals, to verify the contents of containers destined for export, particularly in relation to goods subject to licensing controls and transhipment arrangements. No other routine checks of export cargo, either documentary or physical, currently exist.

The existing administrative procedures are considered to be both inefficient and ineffective, given the extremely high levels of sea cargo which passes through Hong Kong and the magnitude of the regulatory responsibilities which fall to HKC&ED. In terms of the conceptual model, the administrative framework relating to sea cargo is considered to lack balance between regulatory control and trade facilitation, in that virtually all transactions are currently being facilitated and little control exists. The extensive reform program, which is discussed earlier in this chapter, is likely to address these concerns through the introduction of more effective reporting requirements, together with the electronic systems to support the associated data processing and communication.

RIVER CARGO

Operational Environment

River Trading Vessels (RTVs) are small cargo vessels that provide transport services between Hong Kong and Mainland China ports in the Pearl River Delta region. Such vessels generally carry containers, but may also carry general cargo or bulk cargo. A special facility known as the River Trade Terminal, owned and operated by the River Trade Terminal Co. Ltd., has been developed for the specific use of RTVs. It comprises a 3,000 metre quay, 60 berths, and loading, storage and stacking facilities. RTVs may also berth at one of Hong Kong's eight Public Cargo Working Areas or at one of the mid-stream buoys, in which case barges would be used to load and discharge the cargo. In addition, RTVs may berth at one of the many private jetties that have been developed throughout Hong Kong, or indeed any other place that they may choose. This is due to the fact that vessels carrying international cargo may legally berth at any place within Hong Kong. Whilst ocean-going vessels are restricted by the availability of berthing facilities, RTVs, being much smaller, experience no such restrictions.

Whilst physical security within the Public Cargo Working Areas is virtually nonexistent, this is not the case for the River Trade Terminal, which is professionally run by the River Trade Terminal Company. Consequently, as a general rule, HKC&ED will treat all RTV berths outside of the River Trade Terminal as high risk in terms of physical security over containers and their cargo.

As previously noted, in 2001 the international cargo throughput for sea and river totalled 179.3 million tonnes. Of this, 49.0 million tonnes (or about 27 per cent) was carried by RTVs (Hong Kong Census & Statistics Department, 2003). As such, the amount of trade conducted by RTVs, which essentially involves trade between Hong Kong and Mainland China, is significant.

Customs Procedures

As is the case with sea cargo, manual processing procedures currently apply to river cargo and there is no mandatory requirement for shipping companies or their agents to submit copies of either the import or export cargo manifest to Customs unless specifically requested to do so. While this creates similar problems for Customs to those discussed in the previous section, the solutions are not as clear-cut. For example, while it may be considered practical to require major shipping lines to submit manifest data electronically prior to vessel arrival, it may not be feasible to expect RTV operators to do the same. This is because many RTVs are run as small

businesses, with owners tending to operate entirely from paper-based records. Consequently, they may not have the capability to provide pre-arrival manifest information electronically to the level required by customs. This issue is currently being addressed by HKC&ED in the context of implementing the EMAN system, which is examined in the following chapter.

At the commencement of the study, information about the impending arrival or departure of vessels was not readily available for RTVs, with the exception of those RTVs that berth at the River Trade Terminal, which maintains an effective shipping schedule database that may be readily accessed by HKC&ED. During the course of the study, the Marine Department expanded the pre-arrival notification system for vessels over 300 tonnes to apply to most other vessels, including RTVs. As a result, since 1 November 2002 it has been a requirement for all RTV operators to submit a pre-arrival notification to the Marine Department's Vessel Traffic Centre not less than 24 hours prior to their intended entry into the waters of Hong Kong, or immediately after leaving their last port of call in situations where the journey takes less than 24 hours (Regulation 6A of the Shipping and Port Control Regulations, Chapter 313A, Laws of Hong Kong). All pre-arrival information, which includes the purpose of the visit and the intended anchorage or berth on arrival, is readily accessed by customs officials.

With the introduction of the new pre-arrival notification regulations by the Marine Department, HKC&ED now has access to shipping schedules for RTVs. However, the nature of RTV activities, which essentially comprises shuttle services between Hong Kong and ports in the Pearl River Delta, presents customs with relatively short lead-times for accessing and analysing vessel data. Selection of vessels is therefore generally undertaken on the morning of the scheduled day of arrival. Otherwise, the procedure for selecting RTVs for further analysis is essentially the same as that applying to ocean-going vessels. Having made a selection, customs officers board the vessel, obtain a copy of the cargo manifest from the master of the vessel, and select specific consignments for examination. Other consignments may be discharged and delivered to consignees without customs intervention.

As is the case for sea cargo, HKC&ED's efforts to manage compliance in respect of goods consigned by river trading vessels are considered to be extremely inefficient

and ineffective. There is essentially no semblance of customs control, and with little regulatory requirements on the part of vessel operators, the operating environment is basically one of total facilitation. Whilst the planned reforms, as discussed in chapter 6 will appropriately address the problems, there appear to be a number of major hurdles to overcome before full implementation of the reforms can be achieved, including the commercial and technological difficulties that may be faced by RTV operators in providing HKC&ED with cargo data electronically. This issue is further discussed in chapter 8.

ROAD CARGO

Operational Environment

There are currently only three road crossings between Hong Kong and Mainland China, known as Land Boundary Control Points. These are located at Lok Ma Chau (bordering Huang Gang on the Mainland side), Man Kam To (bordering Wenjindu) and Sha Tau Kok (bordering Shatoujiao). Additional boundary crossings planned for the future include a proposed link across Deep Bay from Ngau Hom Sha in Hong Kong to Shekou in Mainland and a proposed bridge from Hong Kong to Zhuhai. Due to the very stringent controls that apply to cross-boundary movements, there is considered to be no opportunity for goods vehicles to cross at any other point, and the level of security is extremely high. Consequently, unlike river trading vessels transporting goods between Hong Kong and Mainland China, HKC&ED can be confident that all vehicles entering or leaving Hong Kong will come to their attention at one of the three Land Boundary Control Points.

All cargo vehicles travelling from Hong Kong to the Mainland (i.e. northbound) or from the Mainland to Hong Kong (i.e. southbound) are required to complete customs formalities at a customs kiosk, several of which are situated at each of the Land Boundary Control Points. At Lok Ma Chau, the principal boundary crossing which operates on a 24 hour basis, there are 24 customs kiosks, 12 northbound and 12 southbound. Man Kam To, the second largest boundary crossing has 12 customs kiosks, 6 northbound and 6 southbound. Its operating hours are 0700 and 2200. Sha Tau Kok, which operates between 0700 and 2000, has 6 customs kiosks, 3 northbound and 3 southbound.

In 2000, there were about 9.4 million movements of goods vehicles across the three Land Boundary Control Points, representing an average daily throughput (i.e. into and out of Hong Kong) of 24,906. During this time, some 22.1 million tonnes of road cargo was imported into Hong Kong and 17.8 million tonnes was exported, a total throughput of 39.9 million tonnes, representing an average of about 109,000 tonnes per day (Hong Kong Census & Statistics Department, 2003). The crossings were undertaken by approximately 28,000 Hong Kong licensed drivers and 1,000 PRC licensed drivers and a total of about 11,500 goods vehicles. The total population of drivers and vehicles that are involved in cross-boundary movements is able to be determined at any given time due to the closed area policy which applies between Hong Kong and Mainland China, requiring permits to be obtained from both the Mainland and Hong Kong for any vehicle intended to be used in cross-boundary activities. All such vehicles must have nominated drivers who are also required to be licensed to undertake cross-boundary activities. From the limited amount of information available, and based on feedback from trucking and related industry sources, it is estimated that, of the 11,500 trucks involved in cross-boundary transportation on a regular basis, approximately 3,500 are container trucks and about 8,000 are other goods vehicles (e.g. Widdowson, 2001a and Hong Kong Commerce & Industry Bureau, 2002).

The cross-boundary trucking industry is quite fragmented. It is estimated that the eight largest trucking companies own about 15 per cent of the container truck fleet, 30 medium-sized companies own 15 per cent and the remaining 70 per cent comprise owner-drivers. In the interests of maximising industry consultation in matters of cross-boundary clearance, HKC&ED has established a consultative forum for the trucking industry, the Cross Boundary Transport Industry Customer Liaison Group, comprising the main trucking associations, including associations representing owner-drivers. The group meets quarterly.

Customs Procedures

The current system employed by HKC&ED to process road cargo is largely manual, with some very limited automation provided by the Land Boundary Computer System, which is essentially used for targeting high-risk vehicles. As for other modes, the road cargo manifest represents the key source of information on which

cargo examination selections are made. The road cargo manifest is currently paper based, although an extensive study (Hong Kong Commerce & Industry Bureau, 2002) has recently been completed, which recommends the introduction of an electronic manifest system for road cargo. The proposed road manifest system (known as 'ROMAN') is examined in the following chapter.

Import and export manifests for goods vehicles are presented to customs when the vehicle arrives at the Customs Kiosk, and officers input basic details about the vehicle into the Land Boundary Computer System, including the vehicle registration number, the type of vehicle and whether it is empty or carrying cargo. In addition, due to the strict controls applying to textile transactions between Hong Kong and Mainland China, the Textiles Trader Registration Number (if any) is also input into the system. In this regard, it is pertinent to note that the most common reason for cargo to be selected for Customs examination is the potential breach of Hong Kong's textile regulations. For example, at Lok Ma Chau, the largest of the three Land Boundary Control Points, examinations of textiles accounts for more than 50 per cent of all cargo selections.

Within Land Boundary System, the vehicle registration number is used to trigger an advice to customs officers that the vehicle is 'of interest', i.e. information is contained in the database which indicates that the vehicle may represent a high risk. When this occurs, the vehicle is required to proceed to the customs examination platform for physical examination and/or documentary check. In all other cases, the customs officer manually screens the cargo manifest details, together with any other documentation such as import or export licences, to determine whether an examination is required. If not, the vehicle may continue without customs intervention. HKC&ED has established a performance pledge to process cargo vehicles in no more than 60 seconds, unless the vehicle is selected for examination and/or further documentary check.

In view of the fact that some 50 per cent of all northbound goods vehicles and 20 per cent of all southbound goods vehicles are carrying no cargo, which may include carriage of empty containers, HKC&ED has introduced dedicated processing lanes to provide such vehicles with facilitated clearance arrangements. This initiative, which has been in operation since August 1999, reduces the amount of queuing time prior to

customs processing, thereby allowing such vehicles to pass through the land boundary much quicker than those vehicles for which full cargo processing formalities must be completed.

The current methods of processing road cargo have been in operation for about twenty years, when cross-boundary cargo movements first began. Since that time there have been very few changes to way in which cross-boundary compliance has been managed, and the only adjustments to cope with the rapidly increasing level of imports and exports by road have involved increases in the number of customs kiosks and processing staff. In 1999 HKC&ED initiated a major review of the processing arrangements in recognition of the need to examine the feasibility of automating the process. This initiative also recognises the need to break the nexus between increased vehicle flow and increased manpower as a method of maintaining acceptable levels of regulatory control. As previously noted, the review of the road manifest system recommends the development of an electronic system for road cargo manifests (Hong Kong Commerce & Industry Bureau, 2002). The review also recommends, among other things, that electronic submission of road cargo manifests should be mandatory, that manifest data should be submitted to customs one hour prior to the vehicle's arrival at the Land Boundary Control Point, that manifests should also be required for unladen vehicles and that a sophisticated profiling mechanism should be used to facilitate customs processing. These initiatives are further addressed in the following chapter which examines Hong Kong's information technology framework.

Pending implementation of these proposals, HKC&ED is progressing a number of initiatives in the short- to medium-term that will provide cargo vehicles with speedier customs clearance at the land boundary, thereby enhancing traffic flow. This includes the installation of an automated vehicle recognition system at each of the three Land Boundary Control Points, linked to the Land Boundary System that will automatically capture vehicle registration numbers as they approach the Customs Kiosks. This is anticipated to increase the speed and accuracy of data input and will also facilitate the later development of an automated alert system as an integral part of the proposed electronic manifest system (see Wong, 2002 and Hong Kong Commerce & Industry Bureau, 2002). However, the interim enhancements to the system represent little more than the automation of existing procedures, and whilst some increased efficiency may be achieved, it is considered unlikely that the effectiveness of the

system will benefit from such changes as no business process re-engineering has accompanied the refinements, as advocated by the conceptual model (refer Table 4.1). However, the more significant reform processes that will see the introduction of the proposed ROMAN system, which is examined in the following chapter, has included extensive business process re-engineering that has been developed in consultation with the commercial sector.

A further project designed to facilitate the clearance of road cargo is the introduction of 'one-stop' clearance arrangements for both customs and immigration purposes. Traditionally, cargo vehicles have been required to stop at two separate kiosks to obtain cross-boundary clearance, i.e. an Immigration Kiosk and a Customs Kiosk. The 'one-stop' initiative, which was recommended in the recent Study on Customs Clearance Requirements and Services (Business & Services Promotion Unit, 2000) involves the introduction dual-purpose processing kiosks, thereby providing a facility for cargo carriers to stop only once for both immigration and customs clearance. These arrangements are currently being trialled at the Lok Ma Chau Land Boundary Control Point (see Wong, 2000).

At present, the methods used to process road cargo at Hong Kong's land boundary are very labour intensive. There is no focus on post-transaction compliance assessment, with all customs controls being based on intervention at the time cargo vehicles cross the land boundary. The methods of compliance management are also entirely focussed on assessing the veracity of transactions, as opposed to assessing the integrity of trader systems and procedures, and in view of the way in which control mechanisms have been constructed, there is very little opportunity to exercise administrative discretion. As such, the compliance management style currently exhibited by HKC&ED at the Land Boundary Control Points is considered to reflect a 'gatekeeper' style, as described in the conceptual model.

RAIL CARGO

Operational Environment

Rail cargo represents a relatively small, but significant mode of transportation into and out of Hong Kong. The Kowloon-Canton Railway (KCR) links Hong Kong with Mainland China via the Lo Wu crossing in the New Territories, carrying container cargo, general cargo and livestock between Hong Kong and the Mainland, by running regular freight shuttles between Kowloon and seven Mainland cities, namely Shijiazhuang, Zhengzhou, Xian, Wuhan, Luoyang, Lanzhou and Urumqi, and operating container services to some 41 cities. Not all cargo is inbound from or bound for Mainland China. Rail freight transportation and intermodal services are currently provided to more than 15 international destinations, including international landbridge container cargo services to Almaty, Tashkent and Ulaanbaatar (see Kowloon-Canton Railway Corporation, 2002). On average, there are seven outbound and six inbound freight services, running between 0609 hours and 2354 hours daily. In 2001, the throughput of international rail cargo totalled about 370,000 tonnes (excluding livestock), comprising imports of about 273,000 tonnes (about 750 tonnes per day) and exports of about 173,000 tonnes (about 470 tonnes per day) (Hong Kong Census & Statistics Department, 2003).

The KCR is operated by the Kowloon-Canton Railway Corporation (KCRC), which has been established as a statutory public body. Consequently, all rail cargo transported into and out of Hong Kong is carried by a single carrier, the KCRC. There are, however, a number of rail cargo handling agents who essentially perform a freight forwarding role, including The China Travel Services (Cargo) HK Ltd. (CTS), Tai Luk Hong, Rapin Win Co Ltd., The China Railway Transportation (HK) Ltd. and Kowloon Canton Railway Corporation KCR Freight (KCRC).

Customs clearance of rail cargo is generally performed at the rail cargo terminal in Hung Hom, which is the end of the line in Hong Kong. Whilst the majority of cargo is cleared at Hung Hom, some general cargo is also cleared at the Fo Tan rail cargo terminal, usually when Hung Hom has reached its capacity, and livestock is cleared at Sheung Shui. No cargo is cleared at the border station of Lo Wu, although it is used as a marshalling area, where cargo wagons may be consolidated for subsequent hauling to Hung Hom, Fo Tan or Sheung Shui.

At the time of the study, the general security of the rail cargo yards was considered to be inadequate, as there was no security infrastructure to ensure that selected or uncleared cargo would not be tampered with or removed from the terminal. It is understood that this matter has since been addressed through the installation of CCTV equipment.

Customs Procedures

Manual customs processing procedures currently apply to rail cargo, although the KCRC is working with HKC&ED in the development of an electronic trade manifest system for rail-borne cargo. The proposed system is the generic 'EMAN' (electronic manifest) system, which is examined in the following chapter. As is the case with other modes of cargo, there is no mandatory requirement for copies of import or export manifests to be provided to customs unless specifically requested to do so by HKC&ED. However, a 'standing request' is in place, which has the practical effect of mandating the submission of rail cargo manifests to customs for all freight movements prior to the arrival of a freight train. Unlike other modes of cargo, however, it is a legislative requirement for the handling agents (not the carrier, which is the KCRC) to provide Customs with copies of rail cargo manifests (see Regulations 11 and 12 of the Import and Export (Registration) Regulations, Chapter 60E, Laws of Hong Kong).

Due to the fact that the handling agents, rather than the carrier, are required to submit rail cargo manifests to customs, the manifests which are provided actually represent a subset of what would normally be held by the carrier, i.e. each handling agent supplies a (sub) manifest that relates only to the cargo for which they have commercial responsibility. For this reason, HKC&ED seeks to ensure that all imported cargo is covered by the manifests submitted by the various handling agents. This is achieved by cross-checking the manifest details against a variety of alternate commercial information holdings that are maintained and/or accessed by customs officials.

All import cargo manifests are manually screened, and consignments are selected for physical examination and/or documentary check, with handling agents being advised of the customs status of their cargo within 30 minutes of receipt of full documentation. This is not a formal performance pledge, but has been agreed in consultation with the handling agents, who meet regularly to discuss issues of mutual concern. Selected import cargo is detained upon its arrival, pending completion of customs formalities. In the case of export cargo, handling agents are required to provide customs with an export manifest prior to departure. As is the case with import cargo, HKC&ED verifies that all cargo is covered by the various manifests, and then proceeds to determine which consignments require customs examination.

The customs arrangements applying to the processing of rail cargo, as they currently stand, represent a 'one size fits all' approach, since the strategy employed by HKC&ED does not currently vary dependent upon the risk posed by particular traders. The focus is one of control, with no streamlined provisions established for those traders who may be capable of demonstrating a high level of compliance. As such, the controls that are exercised are transaction-focussed and based on real-time intervention, with no post-transaction compliance assessment taking place. In terms of the conceptual model, the administrative framework for rail cargo is considered to reflect the traditional 'gatekeeper' style of compliance management.

MULTI-MODAL CARGO

Operational Environment

Multi-modal cargo refers to transhipment cargo which is carried on two or more modes of transportation. For example, a consignment may arrive in Hong Kong by air and subsequently be transported to Mainland China by road. Trading patterns in Hong Kong include a variety of multi-modal combinations, the more common forms being transhipments originating in Mainland China comprising road/air, river/air, road/sea, river/sea and rail/road/sea; and transhipments destined for China comprising air/road, air/river, sea/road, sea/river and sea/road/rail.

The significance of transhipment cargo to Hong Kong, which includes the various forms of multi-modal cargo, emerges when considering the fact that some 85 per cent of Hong Kong's imports by value are subsequently exported, and that about 90 per cent of such transhipments comprise consignments originating in or destined for Mainland China (Business & Services Promotion Unit, 2000 and Hong Kong Census & Statistics Department, 1999). Consequently, Hong Kong's international trading base is centred on transhipments to and from Mainland China, which suggests that Hong Kong is essentially a conduit for trade between Mainland China and the rest of the world.

Hong Kong's traditional role of the trading gateway to China has now come under question with the recent establishment of China as a member of the WTO. It is widely considered that the shape of international trade may be set to change significantly in the wake of China's accession to the WTO, which has resulted in increased direct trading activity between China and the rest of the world. This has caused Hong Kong's Commission on Strategic Development to identify trade, transportation and logistics as key strategies for Hong Kong's future, and has triggered the Hong Kong Government to develop and implement a competitive strategy and master plan for Hong Kong to maintain its position as a leading international and regional transportation and logistics hub. Key elements of the strategy include the need to address relevant government information technology infrastructure and regulatory requirements in an effort to facilitate transhipment cargo and to ensure that the movement of goods between Mainland China and Hong Kong is as seamless as possible, with minimum customs intervention (see Hong Kong Port & Maritime Board, 2001 and Widdowson, 2001a).

Customs Procedures

A principal concern of customs administrations in relation to transhipment cargo is to ensure that any goods that are imported into the customs territory with the stated intention of being subsequently re-exported, are in fact re-exported and do not enter the domestic economy. A further customs concern is to uphold all international obligations relating to trafficking in restricted and prohibited goods. In the case of Hong Kong, the principle commodities of concern are strategic commodities, dutiable commodities, dangerous drugs, controlled chemicals and counterfeit goods. According to the WCO:

The basic principle of Customs transit [Note: the WCO term 'transit' has the same meaning as this study's use of the term 'transhipment'] is to permit, under certain conditions, goods to move from one Customs office to another in the same country or another country, without collecting the duties and taxes that may be applicable to imported or exported goods and without applying economic prohibitions or restrictions. Customs transit through the Customs territory may be authorized for goods which, under national legislation, are subject to prohibitions or restrictions at importation (World Customs Organization, 1999, Specific Annex E, Chapter 1, p.1).

As noted in the previous chapter, until the passage of the Air Cargo Transhipment (Facilitation) Ordinance in 2000, no special regulatory arrangements existed for

transhipment cargo in Hong Kong, with all such shipments being treated as two separate transactions, i.e. importation into the country and subsequent exportation out of the country. Such an approach requires all traders of transhipment goods that are subject to licensing controls to obtain both import permits and export permits, regardless of the length of time that the goods remained within the territory of Hong Kong. Whilst the passage of the Air Cargo Transhipment (Facilitation) Ordinance has resulted in facilitated clearance arrangements being available for those shipments that are transhipped within the confines of Hong Kong International Airport, those which are transhipped outside that area, including all multi-modal transhipments, remain subject to the dual processing arrangements, i.e. full customs processing at the point of both importation and exportation. Such a 'one size fits all' approach is indicative of a 'gatekeeper' style of compliance management, as discussed in chapter 4, with no alternative processing strategy provided for imports that are clearly destined for re-export.

Clearly HKC&ED has an obligation to operate within the confines of the law and consequently, while there is a recognition by customs that transhipment goods should be facilitated to the greatest extent possible, this cannot be done in contravention of the law as it currently stands. There is clear evidence, however, that the Government is seriously considering broadening the application of the Air Cargo Transhipment (Facilitation) Ordinance to apply to other places such as the Kwai Chung sea cargo container terminals, as well as to multi-modal transhipments, particularly those shipments moving between the airport and the Lok Ma Chau Land Boundary Control Point, i.e. air/road and road/air transhipment, as well as movements between Lok Ma Chau and the Kwai Chung sea cargo terminals, i.e. road/sea and sea/road (e.g. Business & Services Promotion Unit 2000, Hong Kong Port & Maritime Board, 2001 and Hong Kong Commerce & Industry Bureau, 2002).

The implementation of such initiatives would serve to align HKC&ED's compliance management strategies closer to the risk-managed style espoused in the conceptual framework. In particular, recommendations of the Study on Customs Cargo Clearance Requirements and Services (Business & Services Promotion Unit, 1999) include a number of initiatives that are specifically designed to simplify procedures for the clearance of multi-modal transhipment cargo. These include a general review of licensing arrangements with a view to achieving less onerous requirements for

transhipment cargoes, a review which seeks to reduce or eliminate the requirement for trade declarations for transhipment cargoes and the introduction of simplified clearance procedures for multi-modal cargo, by treating such movements as a single transaction. These recommendations have been accepted by Government are are currently in the process of being implemented.

In the meantime, HKC&ED is examining ways of introducing administrative methods to facilitate multi-modal cargo within the confines of the existing statutory provisions. For example, a trial program is in operation with the objective of facilitating the transhipment of cargo which arrives at Hong Kong International Airport and is then transported to Mainland China via the Land Boundary Control Point at Lok Ma Chau. Under the trial arrangements, Customs examines the air waybill/road manifest in advance of cargo movement for the purposes of determining whether the proposed transhipment poses a potential risk, and consequently whether there is a need for either further documentary checks or physical examination of the goods themselves. If inspections are required, the forwarders are advised of this and any such inspections are conducted at the air cargo terminal prior to the goods being loaded onto the truck for Mainland China. As such, HKC&ED ensures that all legislative requirements for both import and export are performed prior to departure for the land boundary. In some cases the clearance process may even be finalised prior to the arrival of the aircraft.

Prior to departure for Lok Ma Chau, the truck is sealed by Airport Customs to provide a means by which Customs at the land boundary may assess whether the shipment has been tampered with between the airport and the land boundary. An express processing lane has been established for trucks trialling the facilitated arrangements, and Customs provides uninhibited passage through to the Mainland, provided that the seal is found to be in tact if when examined by Customs. It is pertinent to note that a similar system has been established on the Mainland side of the land boundary, which allows the trucks to proceed to their destination within Mainland China, such as the Guangzhou Baiyun Airport, where the (Chinese) seal is checked prior to Customs clearance.

Another form of multi-modal facilitation has been introduced between Hong Kong International Airport and the Marine Cargo Terminal, which has been established in close proximity to the airport. The Marine Cargo Terminal, which commenced operation in April 2001, was established to provide an efficient transportation linkage between the airport and river ports in the Pearl River Delta, particularly in the light of anticipated increases in the time taken to transport cargo by road between the airport and the Pearl River Delta as a result of road congestion and the land border crossings. The facilitated processing arrangements apply to multi-modal transhipments that are imported through the airport for subsequent export through the Marine Cargo Terminal and vice versa. For example, for cargo arriving by air that is to be transhipped to the Pearl River Delta via the Marine Cargo Terminal (i.e. air/river transhipment cargo), Customs is required to be advised of the proposed transhipment prior to aircraft arrival. Unless HKC&ED have a particular need to examine the goods, they will authorise the movement of the cargo to the Marine Cargo Terminal and its unimpeded transfer to a river trading vessel for subsequent export to Mainland China.

The types of compliance management strategies that are being trialled between the airport and land border, and the arrangements that are in operation between the airport and Marine Cargo Terminal suggest that HKC&ED is moving towards a more risk-based style of compliance management. This is evidenced by key features of the new initiatives, including the introduction of alternative processing procedures to reflect the types of movements involved and hence the inherent risk, the increased emphasis on trade facilitation rather than a sole focus on enforcement, the consultative way in which the new schemes are being developed and implemented and an increased emphasis on assessing the integrity of the trader or carrier, rather than assessing the veracity of individual consignments.

WAREHOUSED CARGO

Operational Environment

A customs bonded warehouse is a building or other secure area in which dutiable goods may be stored without payment of duty. The bonded warehouse arrangements therefore provide traders with a duty deferral facility, whereby they may store goods 'under bond' in licensed premises until such time as they are ready to pay the duty on the goods or otherwise acquit the duty liability. When dutiable goods are delivered into a bonded warehouse, the warehouse proprietor incurs a revenue liability for the goods. This liability is acquitted when the goods are duty paid, exported, transferred to another warehouse, or entered for concessional use (e.g. sale to diplomatic staff).

As noted in chapter 6, a number of commodities are subject to duties when imported or manufactured in Hong Kong. Until such time as the duty liability is acquitted, such goods are required to be stored in one of three types of warehouses that are licensed by HKC&ED under the Dutiable Commodities Ordinance, Chapter 109, Laws of Hong Kong. These include General Bonded Warehouses, which are located at the airport and Kwai Chung container terminals, and are used to store dutiable commodities that have been discharged from ships or aircraft upon their arrival in Hong, or are to be loaded onto ships or aircraft that are due to depart Hong Kong. General Bonded Warehouses, which are operated on a commercial basis, essentially represent an extension of the ship or aircraft for customs purposes. Operators of such warehouses are required by law to store dutiable goods at the request of any permit holder, and may also store goods for which permits have not yet been obtained.

The second type of warehouse, the Licensed Warehouse, is for the exclusive use of licensees to store dutiable commodities owned by them, and for which the duty liability has not yet been acquitted. Such warehouses are licensed by HKC&ED to store particular types of dutiable commodities. Similarly, Public Bonded Warehouses, which are commercially operated, may be used by any permit holder to store dutiable commodities on which the duty remains unacquitted. Unlike General Bonded Warehouses, the operators of Public Bonded Warehouses are not permitted to receive or release dutiable commodities for which permits have not yet been obtained. It should be noted that distilleries are also a type of customs bonded warehouse, but are of less relevance to the current study.

Customs Procedures

Hong Kong has traditionally controlled its warehouses under a 'closed bond' arrangement. This involves stationing customs officers at licensed premises to exercise physical control over dutiable commodities held in the warehouse, and to supervise a range of commercial activities, including the movement of all goods entering or leaving the warehouse, the movement of dutiable goods within the

warehouse, the packing and unpacking of all containerised consignments and all inbond operations such as labelling, blending and bottling. Under these arrangements, HKC&ED staff manage compliance by literally locking the warehouses at night, using a 'revenue key', and re-opening the premises when they commence duty the following morning. Consequently, no commercial activities may be carried out in a bonded warehouse without the physical presence of customs staff, since the warehouse remains locked outside of customs hours of duty. Under these 'closed bond' arrangements, warehouse operators are required to meet all government charges relating to HKC&ED's supervisory role, including officers' salaries, overtime and the provision of appropriate on-site accommodation and equipment.

In order to improve the efficiency and effectiveness of warehouse operations, and to reduce the cost of both regulation and compliance, most developed countries moved away from closed bond systems some time ago. For example, the Australian Customs Service introduced 'open bond' arrangements (described below) in the late 1960's, while the US Customs Service introduced open bond systems in the early 1980's. Following its introduction of the open bond approach to warehouse compliance, the US Customs Service announced:

The Customs Regulations were amended in 1982...to replace physical supervision by Customs with the audit-inspection supervision method. Through this change, Customs reduced reimbursable costs to proprietors from \$8 million to \$2 million annually, and allowed much more flexibility in warehouse operations...At the same time, the change saved taxpayers almost \$2 million annually in Customs costs and reduced the number of Customs officers needed to supervise warehouses from about 300 to about 50 (U.S. Customs Service, 1996, p. 2-1).

Under the 'open bond' arrangements there is no full-time customs presence. Rather, warehouse operators and traders are responsible for declaring the duty payable through a regime of self-regulation. Compliance is monitored and controlled through alternative strategies such as documentary verification, random checking and post-transaction auditing. It is pertinent to note that HKC&ED does in fact allow companies to operate under open bond arrangements in certain circumstances and, rather than stationing officers at the premises to physically supervise activities,

customs control is based on the principles of self-assessment and risk management, with customs intervention generally limited to periodic inspections. In this regard, it is pertinent to note that a number of commercial operators, including the oil companies and breweries, have been allowed to operate under an open bond system for some years (see Business & Services Promotion Unit, 1999).

In 1999 HKC&ED commissioned a study to examine the possibility of broadening the application of the open bond arrangements in an effort to eliminate unnecessary costs to industry and increase the efficiency of its compliance management activities. The study found that:

Extension of open bond arrangements to the liquor and tobacco industry will reduce costs and lead to an increase in business for these industries and for Hong Kong. There is therefore a need to consider more efficient and effective ways of achieving Customs objectives, including trade compliance, revenue collection and trade facilitation. From a broader Government perspective, the extension of the open bond system will assist Hong Kong liquor and tobacco traders by enhancing their competitiveness in the international market. Government is keen to bring benefits to these industries by extending its open bond arrangements. In doing so, the Government must maintain adequate protection of its associated revenue (Business &Services Promotion Unit, 1999, p.1-1).

The study recommended that open bond arrangements should be introduced for all Licensed Warehouses and Public Bonded Warehouses. A pilot program for the Open Bond System was implemented in five warehouses from 1 January to 30 June 2001, during which time the supervisory customs staff were withdrawn, with customs control being exercised through documentary verification, random checking and post-transaction auditing. According to HKC&ED, the pilot program ran smoothly and supportive feedback was received from the warehouse operators. The new arrangements will be formally introduced once the necessary legislative amendments are in place. According to the Commissioner of HKC&ED:

The new system should bring significant benefits to the industry, including minimising Customs intervention in their commercial activities, facilitation of

the vast majority of low risk transaction, improving trade facilitation, speedier clearance of cargo and reduced compliance costs (Wong, 2002, p.8).

The 'closed bond' arrangements, which HKC&ED has traditionally applied to the management of compliance in relation to bonded cargo, are considered to be reflective of the 'gatekeeper' style described in chapter 4. Such arrangements are characterised by real-time physical control, with the compliance assessment focus being directed towards individual transactions rather than the broader concept of a warehouse operator's systems, procedures and controls. The open bond arrangements to which HKC&ED is moving, on the other hand, are reflective of a risk-based style of compliance management, due to the greater reliance on warehouse operators' self-assessment of their compliance, verified through post-transaction customs compliance audits of the relevant systems and procedures to determine the integrity of such systems. Similarly, the open bond arrangements recognise the responsibilities of both customs and industry in achieving high levels of compliance, which is again reflective of a risk-based compliance management style (Refer Table 4.1).

SUMMARY – ADMINISTRATIVE FRAMEWORK

The objectives of HKC&ED are essentially twofold - to prevent and detect the smuggling of goods, and to ensure that the importation, exportation and transhipment of goods are in accordance with licensing and other statutory requirements. The administrative strategies to achieve these objectives must fit within the legislative confines of Hong Kong's statutory provisions.

Unlike most customs administrations, HKC&ED has no access to trade declarations at the time of importation or exportation, and consequently it must rely on information contained in cargo manifests and/or physically examine goods in order to assess whether legislative requirements have been met. This impediment serves to explain why HKC&ED's administrative approach to regulatory compliance is heavily focussed on the receipt and analysis of manifest information and the physical control over goods, with the latter strategy typifying a 'gatekeeper' style of compliance management (refer Table 4.1).

The situation is further exacerbated by three factors. Firstly, with the exception of air cargo, the receipt and processing of manifest data is currently manual and, as a
consequence, highly labour intensive. Secondly, for some modes of transport, there is currently no requirement to submit a copy of the cargo manifest to customs unless specifically requested to do so. Both of these issues are being addressed through the proposed introduction of automated systems and a review of legislative provisions, as discussed in chapters 6 and 8. Thirdly, whilst some modes of transport readily lend themselves to effective physical control, either because of the nature of the transport itself or the existence of a high-security operating environment (e.g. the airport), others do not. River transport, in particular, poses severe problems in Hong Kong due to the variety, number and size of river trading vessels and the relative freedom with which they are able to load and discharge cargo.

Consequently, the manner in which HKC&ED seeks to ensure compliance with statutory requirements is by necessity heavily dependent upon the particular mode of transport in which the cargo is imported or exported. For imports by air, road and rail, a decision by customs to release the goods must be made before delivery can take place. Sea and river cargo, however, is detained on an exception basis, and cargo delivery may proceed as a matter of course unless customs specifically advises otherwise. The existing administrative procedures for sea and river cargo, in particular, are considered to be both inefficient and ineffective. In terms of the conceptual model, the administrative frameworks are considered to lack balance between regulatory control and trade facilitation, in that virtually all transactions are currently being facilitated and little control exists. The extensive reform program, which is discussed earlier in this chapter, may address these concerns through the introduction of more effective reporting requirements, together with the electronic systems to support the associated data processing and communication requirements.

The customs arrangements applying to the processing of other forms of cargo, with the exception of air cargo, also reflect the traditional 'gatekeeper' style of compliance management, as depicted in the conceptual model. The controls that are exercised are essentially transaction-focussed and based on real-time intervention, with no posttransaction compliance assessment being undertaken. However, a number of compliance management strategies are currently being trialled or implemented which indicate that HKC&ED may be moving towards a more risk-based style of compliance management.

8. HONG KONG

INFORMATION TECHNOLOGY FRAMEWORK

This chapter examines the information technology framework in place in Hong Kong in the context of the conceptual framework described in chapter 4. This comprises a broad examination of the overarching information technology infrastructure that has been established by the Hong Kong Government, followed by a detailed examination of HKC&ED's information technology framework, including current and proposed electronic systems for communicating and processing international cargo data.

HONG KONG IT INFRASTRUCTURE

Overview

A key strategy of the Hong Kong Government is to maintain its competitiveness in the global economy, particularly in the light of China's accession to the WTO, and the effective use of e-commerce has been identified as a key element in achieving this strategy. As a consequence, the Government is progressing a number of initiatives to ensure that an adequate infrastructure for e-commerce is established and available for use by both the private and public sectors, including the provision of a secure environment for electronic transactions, and is encouraging government agencies to take a lead in adopting new technologies. Hong Kong's progress in this arena is being overseen by the Information Technology and Broadcasting Bureau (ITBB), which was established in 1998 to lead and co-ordinate Government initiatives in the areas of information technology and the associated aspects of broadcasting and telecommunications. The policy objective of ITBB is to enhance and promote Hong Kong's information infrastructure and services in order to establish Hong Kong as a leading digital city in the globally connected world of the 21st Century (see Hong Kong Legislative Council, 1999 and Information Technology & Broadcasting Bureau, 2002).

A major step in establishing the requisite information technology infrastructure was the enactment, in January 2000, of the Electronic Transactions Ordinance (which is examined in chapter 6), which provides the necessary legal framework for conducting electronic transactions in Hong Kong. The Ordinance achieves this by establishing rules for the use of electronic transactions for commercial and other purposes, and facilitating the use of electronic records and digital signatures by according them the same legal status as that of their paper-based counterparts.

With the rapid development of information technology and its widespread application within the Government, ITBB is also seeking to ensure that the government-wide information technology infrastructure is fully integrated, by establishing a consistent IT approach across all areas of government. The public sector infrastructure being developed by ITBB includes uniform design principles, standard models, common facilities and security measures that are designed to safeguard information integrity and security. In addition, the Hong Kong Government has developed a common Chinese character set - the Government Chinese Character Set - to facilitate the use of Chinese language documents. According to the ITBB, once fully established, the infrastructure will enable the sharing of information across departments, which in turn will support government policy formulation and decision making, facilitate departmental systems development, maximise the use of modern technologies and enable Hong Kong to cope with departmental needs on a unified and integrated platform (Information Technology & Broadcasting Bureau, 2002).

As a subset of its overarching e-commerce strategy, Hong Kong has been particularly active in developing and promoting the application of electronic commerce to international trade-related transactions through the use of Electronic Data Interchange (EDI). To facilitate the widespread use of EDI and other information technology-based business solutions in Hong Kong, the Government entered into a commercial agreement with Tradelink Electronic Commerce Ltd. (Tradelink) in 1992. The agreement requires Tradelink to provide an electronic Community Gateway for the exchange of certain trade-related data, including cargo manifest data, between the trading community and Government departments, with a seven-year franchise being granted for this purpose, commencing on 1 January 1997. As part of the agreement, Tradelink has introduced a service known as the Electronic Trading Access Service to cater for those members of the trading community that may not be capable of using EDI, and for those who are required to submit documents only occasionally. This service enables small and medium enterprises to lodge paper documents with Tradelink service centres, which convert the documents into EDI messages and on-

forward them to the Government system via the EDI network (see Widdowson, 2001a).

The monopolistic situation which this creates has come under increasing scrutiny from both the public and private sectors, and the Government has consequently reconsidered its single service-provider approach, with one option being to allow traders to submit their documents directly to Government via the Internet, rather than continuing the present requirement to submit all trade data through Tradelink. While it appears that this option is unlikely to receive endorsement, in an effort to foster market competition, the Government has flagged its intention to appoint additional service providers once Tradelink's franchise expires at the end of 2003 (see Hong Kong Commerce & Industry Bureau, 2001). The decision to open up the service provider role to market competition is considered to be a prudent move, and one which is likely to be endorsed by the trading community. However, those commercial operators who have the capacity to do so, believe that they should be allowed to interface directly with Government, rather than be forced to channel messages via a third party. Key concerns about the mandatory use of service providers include the additional costs that are likely to be incurred, together with a healthy degree of cynicism about whether any value will be added by such operators (see Widdowson, 2001a).

The commercial sector in Hong Kong is also very active in its development and use of information technology, and in many respects the Government is playing catch-up in order to provide the trading community with the level of electronic services that it has come to expect and generally receives in its dealings with government in most developed economies. For example, the airlines and indeed the air cargo sector in general have operated relatively sophisticated systems in Hong Kong for some time, and in 1997 the air cargo industry introduced a common interface to facilitate the flow of information among the various operators within the air cargo sector. The resultant connectivity created by the network enables the airlines, cargo agents, cargo terminal operators and other members of the air cargo industry to exchange cargo data to more efficiently meet their operational needs. It also provides the necessary infrastructure to exchange cargo data with HKC&ED, in order to facilitate customs clearance.

Commercial developments to create a paperless environment for servicing sea traderelated transactions in Hong Kong are more recent. These include electronic solutions for cargo planning, routing, booking and loading, electronic documentation, cost modelling, track and trace, information sharing between ports and sourcing of parts, supplies and provisions for ports and vessels. The cargo terminal operators are also establishing Internet portals designed to provide online services for their clients. Such services provide electronic platforms, which are designed to improve the efficiency of logistics cycles by linking different sectors of the shipping industry and facilitating the exchange of shipping information and documentation. River trade specialists are developing similar Internet-based systems to improve handling efficiencies at wharves and to improve the efficiency of cargo transportation services between Hong Kong and the Pearl River Delta.

The reason why Hong Kong's commercial sector is apparently so much further advanced than the public sector in its adoption of electronic systems is considered to be a legacy from Hong Kong's self-acclaimed 'free port' status. As noted in the previous chapter, there is currently no requirement for traders to submit an import declaration as a prerequisite for customs clearance of the consignment, and for the more traditional methods of transportation, i.e. ocean and river vessels, there has never been a requirement for cargo manifests to be submitted to Customs unless specifically requested to do so. This has set Hong Kong apart from most other countries, whose customs administrations have for many years required both manifests and trade declarations to be submitted before clearance may be granted.

With the significant changes to the trading environment that have occurred in the past few decades, such as the manner in which goods are carried and traded, the speed of such transactions and the sheer volume of goods that are traded around the globe, customs administrations around the world have been required to continually adapt their processing methods in an effort to keep pace with the dramatic increase in workload. In order to address these workload pressures, together with changing industry expectations about acceptable levels of trade facilitation, developed countries in particular have been developing and implementing automated solutions such as EDI and electronic processing since the late 70's and early 80's. Hong Kong, on the other hand, with its limited customs data requirements, has persisted with its manual processes and procedures. However, the increasing importance of ensuring compliance with trade controls, particularly those of a politically sensitive nature, appears to have now tipped the scales for HKC&ED, with the level of scrutiny required to ensure compliance threatening to cause unacceptable delays in cargo clearance if manual processing regimes are maintained. Consequently it is considered that, from a customs clearance perspective, Hong Kong's free trade status, which was once its strength, is now emerging as its weakness.

EDI Applications

During the past six years, Hong Kong has made significant progress in developing EDI platforms for trade-related data (see Widdowson, 2001a). For example, Hong Kong has bilateral agreements on textiles with three countries/regions - the USA, Canada and the European Union. Under these agreements, the exports of a wide range of textiles and clothing products are subject to export quota restrictions. Full implementation of EDI for the associated export licensing arrangements, known as the Restrained Textiles Export Licences, developed and administered by the Trade and Industry Department, has already been achieved.

At the time of the study, the feasibility of introducing electronic transmission of registrations and notifications for the Textiles Trader Registration Scheme was also being explored. The scheme, developed and administered by the Trade and Industry Department, is essentially designed to facilitate the textiles trade by waiving the requirement for the department's prior approval of individual import and export licences. The scheme covers textiles imports, textiles re-exports, domestic exports of textiles to non-restraint markets, textiles transhipment cargoes and domestic exports of samples to the USA in accordance with specified conditions. In lieu of licences, registered traders may submit, via their carriers, a notification which they themselves complete.

Lodgement of Trade Declarations is another key trade-related area where considerable progress towards automation has been made. Any person who imports or exports any article other than an exempted article is required to lodge an import or export declaration (commonly referred to as a trade declaration) with HKC&ED within 14 days after the importation or exportation of the article. Since April 2000, all trade declarations have been required to be submitted electronically via Tradelink.

It is also a requirement for Production Notices for Certificates of Origin to be submitted via EDI. A Certificate of Origin is issued to certify that the goods concerned are of Hong Kong origin, and is used to facilitate customs clearance of consignments in importing countries. Certificates of Origin may be issued by the Trade and Industry Department and five Government Approved Certification Organisations. For cut and sewn garments to be eligible for a Certificate of Origin, the manufacturer must lodge a Production Notice electronically with the Trade and Industry Department prior to the commencement of the origin-conferring process.

Other electronic systems, that are of particular relevance to HKC&ED's areas of responsibility are examined later in this chapter.

Global Electronic Identification

The Hong Kong Article Numbering Association (HKANA), founded in 1989, forms the Hong Kong chapter of the voluntary standards organisation EAN International. It provides professional support for Hong Kong industry in the related areas of the global electronic identification of goods and services and of open standard end-to-end supply chain communication. HKANA also advises the Hong Kong Government on how supply chain management and e-commerce technologies can increase business efficiency and sustain Hong Kong's reputation as a leading global trade centre. The HKANA Board includes senior representatives from the trade, manufacturing, retail and services sectors. Membership mainly comprises buyers and sellers, as the standards relate specifically to purchasing, manufacturing and supply, but some government departments are also members.

The global electronic identification of goods allows for identification at various levels, such as Container Number, Location ID, Shipment ID and Article, or Global Trade Item. The Global Trade Item ID is a unique international identifier, and full details of the goods or services is held in the relevant country repository. For Hong Kong operators, details would be held in HKANA's central repository. The EAN model for global article numbering standards is supply chain focused and industry neutral. Technologies involved in their usage include EDI, barcoding, Internet and Radio Frequency Identification. The benefits of such a system include the ease of transmission of information, the ability to drill down to recover additional details from

the repository, the international uniqueness of the numbering system and the system's barcode application which facilitates physical identification of packaged or containerised goods - GCI, or Global Commerce Initiative, is the international body that is seeking to promote the use of the standards. Preliminary discussions have been held between GCI and the WCO regarding the use of the standards in the context of the Harmonised Commodity and Coding System (the international Customs system of goods classification). However, it is understood that, at an international level, this issue may take some time to resolve.

Nevertheless, the use of EAN global article numbering standards as an element of Customs control is something that is already being considered in Hong Kong. Key elements of the numbering system, including the ability to drill down to recover additional details from a data repository, the international uniqueness of the numbering system and the capacity to identify packaged or containerised goods, have led to the further examination of its potential usage in the Hong Kong Customs environment. Furthermore, the broad range of technologies involved in the use of the numbering system including EDI, barcoding, Internet and Radio Frequency Identification, are considered to present opportunities for reporting, monitoring and controlling shipments, particularly in the case of transhipment cargo. For example, transhipment goods may be reported to customs via the Internet or directly via EDI, physical verification of a consignment's location within a cargo terminal or warehouse could be achieved by use of a barcode reader, and details of individual items within a consignment could be obtained by direct access to HKANA's information repository. In addition, tracking consignment movements between terminals, warehouses or control points could be achieved using radio frequency identification (see Widdowson, 2001a).

CUSTOMS IT INFRASTRUCTURE

Overview

HKC&ED views information as a vital resource, and it considers that 'the proper and effective use of IT can be a crucial factor for improving the overall efficiency, effectiveness and economy of a department' (Wong, 2002, p.10). In this context, HKC&ED has initiated a study to examine the organisation's strategic information

and information technology requirements over the next five years and to determine how they can best be met, having regard to new and emerging technologies. According to the Customs Commissioner:

the approach of strategically linking the Department's IT needs to the business direction will result in improved service to the public. It will also result in ongoing productivity gains to help the Department to better re-deploy its resources to meet changing priorities and new challenges (Wong, 2002, p.10).

As such, HKC&ED appears to recognise the critical role played by information technology in developing more effective methods of achieving its objectives. The conceptual model identifies an effective information technology infrastructure as an enabler to achieving a risk-managed style of compliance management, which focuses on maximising the effectiveness of resource use to achieve organisational objectives – in HKC&ED's case, achieving high levels of both regulatory control and trade facilitation. In this regard, HKC&ED remains politically pressured to continue its transition from a control-focused organisation to one which provides high levels of trade facilitation, while ensuring that compliance with Hong Kong's extensive trade laws are maintained, particularly in respect of politically sensitive goods such as textiles and strategic commodities. According to Wong, HKC&ED is seeking to meet these demands:

by way of improving facilities at the control points, simplifying rules and procedures for cargo clearance, developing relevant IT projects, maintaining close liaison with our Mainland counterparts and entering into partnership with the industry (Wong, 2002, p.11).

The need to reduce the number of manual processes and procedures and to focus on the development of automated solutions is also recognised as an important step towards facilitating the flow of trade in Hong Kong. In its submission to the Information Infrastructure Advisory Committee Working Group on E-commerce Environment and Technologies Exploitation, HKC&ED states:

with the large volume of cargo moving into and out of Hong Kong each day, a customs clearance system hidebound by conventional paper-based cargo clearance procedures could hardly cope with the needs of the trading community. The introduction of a modernised customs clearance system is the ultimate solution to meet the demand for speedy cargo clearance (Information Infrastructure Advisory Committee, 2001, pp. 1,2).

The pressures for developing more effective and efficient ways of doing business through the use of IT systems are not only coming from within the customs organisation and the trading community, but also from international forums such as the Asia-Pacific Economic Co-operation (APEC), of which Hong Kong is a member. In 1998 APEC Ministers endorsed a Blueprint for Action on Electronic Commerce, which espoused, among other things, the widespread automation of customs and other trade-related processes as a key step towards the achievement of a paperless trading environment. In this regard, the Blueprint states:

Taking into account diverse legal and regulatory frameworks in the regions, APEC Ministers agreed that member economies should endeavour to reduce or eliminate the requirement for paper documents needed for customs and other cross-border trade administrations and other documents and messages relevant to international sea, air, and land transport i.e. 'Paperless Trading' (for trade in goods), where possible, by 2005 for developed and 2010 for developing economies, or as soon as possible thereafter. To this end, relevant APEC sub-fora should examine specific initiatives (APEC, 1998, p.2).

As a result of this Blueprint, the APEC Sub-Committee on Customs Procedures (SCCP) is seeking to promote the development of paperless trading regimes in the context of its work program, and Hong Kong is seeking to introduce paperless trading by 2005.

EDI Applications

Four EDI applications are of direct relevance to HKC&ED's cargo processing responsibilities. These include the EDI system for Dutiable Commodities Permits (EDI-DCP), the electronic system for communicating and processing air cargo data – the Air Cargo Clearance System (ACCS), the proposed system for communicating and processing air, sea, river and rail manifest data – the Electronic Manifest (EMAN) System and the proposed system for communicating and processing road manifest data – the Road Manifest (ROMAN) System. Each of these is examined below.

Dutiable Commodities Permits

As noted in chapter 6, the importation and exportation of dutiable commodities (i.e. liquor, tobacco, methyl alcohol and hydrocarbon oil) is regulated by the Dutiable Commodities Ordinance, and traders are required to obtain the appropriate licences and permits from HKC&ED. The EDI system for Dutiable Commodities Permits, EDI-DCP, was introduced in January 2002 to enable the process of applying for permits, processing permit applications and issuing permits to be performed electronically. Under this system, traders lodge their permit applications to customs via Tradelink, who validate the data for completeness and data integrity prior to onforwarding to HKC&ED for processing. Similarly, notification of permit approval is forwarded to applicants via Tradelink.

The system essentially represents an automated version of the previously paper-based system, the main advantage over the manual system being the convenience of electronic communication and some reduction in processing time. According to Wong (2002), the introduction of the EDI-DCP system has resulted in a reduction in processing time from two days to half a day. Whilst in theory the whole process could be performed in a matter of seconds, customs has retained a degree of manual assessment which results in application dwell times of hours rather than seconds.

As a stand-alone system, then, the EDI-DCP system does not appear to add much value to the processing function, but the system's potential is considered to lie in its proposed integration with other systems, i.e. the various cargo manifest processing systems. For example, it would be possible to automatically validate permit numbers listed on a cargo manifest if the cargo manifest processing systems were to interface with the EDI-DCP system, or alternatively if data from the EDI-DCP system were to be regularly uploaded onto the manifest systems. This is something which is currently being considered by HKC&ED (e.g. Hong Kong Commerce & Industry Bureau, 2002).

Air Cargo Clearance System

The Air Cargo Clearance System (ACCS) is an electronic cargo processing system which essentially automates the customs clearance of air cargo down to 'house air waybill' level (i.e. individual consignment level). It achieves this by linking

HKC&ED with the two air cargo terminal operators, four express cargo integrators - DHL, FedEx, TNT and UPS, and the Marine Cargo Terminal, and providing for electronic receipt of cargo data, automated processing and subsequent communication of the customs status to industry. In essence, the processing function facilitates the cargo data screening to identify those consignments which are considered to require some form of verification prior to customs clearance. Such verification may involve documentary checking and/or physical examination of the goods. To enable pre-arrival customs clearance, the system allows air cargo data to be transmitted up to three hours prior to shipment arrival.

The process of cargo screening is far more efficient and effective for air cargo than any other mode of cargo, since ACCS is the only automated cargo processing system that is currently in operation. Its automated screening capability includes checks against data in the central customs database - the Customs Control System – which, among other things, provides access to pre-established risk gradings for consignees. This is achieved through a nightly download of data holdings in the Customs Control System. In addition, ACCS is capable of determining whether the imported goods match articles on the ACCS watch list and target list, which contain details of targeted consignors, consignees and controlled commodities such as strategic commodities, dangerous drugs and controlled chemicals.

The system also generates a percentage selection based on certain risk factors and provides a limited targeting function, with the capacity to flag any consignments meeting profiles that are input by customs officers. Fields against which targeting may be conducted include consignee's name, consignor's name, description of the goods, carrier, flight number, consignee's address and consignor's address. Customs officers may also select cargo for examination independently of ACCS. To facilitate the task of cargo processing, ACCS may also be used as an intelligence research and analysis tool, by way of the End User Computing system, which duplicates the ACCS database in a form in which the data may be readily manipulated.

Since February 2000, HKC&ED has also had the capacity to receive and screen export consignment data electronically through ACCS, although this is not currently obtained as a matter of course, but is supplied by cargo operators only if specifically requested to do so. As is the case with import cargo, customs officers are able to

select particular export consignments for cargo action and advise cargo operators of this through the creation and transmission of a constraint code. A recent study has recommended that consignment data should be submitted for all export consignments prior to departure, in order to maximise the effectiveness of the HKC&ED screening and profiling activities. Given the high level of automation within the industry, such a requirement is unlikely to reduce the level of facilitation currently enjoyed for export cargo (see Business & Services Promotion Unit, 2000).

The development of ACCS has provided HKC&ED with a relatively high level of control over air cargo, and it is therefore considered that customs can currently give a higher degree of assurance about the level of compliance for air cargo than for any other form of cargo. However, due to the current agreement between the Hong Kong Government and Tradelink, which is discussed in the previous chapter, the degree of facilitation which could otherwise be provided to the air cargo industry has been significantly curtailed by the requirement for airlines to submit a paper manifest to HKC&ED in addition to the consignment data which has already been submitted in electronic form. This is due to the fact that, with the introduction of the EMAN system, which is examined in detail later in this chapter, HKC&ED intends to obtain manifest data directly from the airlines in electronic form, but this will be in addition to the current requirement for cargo operators to submit cargo data via ACCS. Since the sum of the cargo data is equivalent to the data contained in the manifest, such a requirement is considered to be excessive. This situation was in fact anticipated at the time of the original EMAN Feasibility Study, although it was not made particularly transparent at that time, with the relevant reference appearing in a footnote to one of the study's appendices:

In view of the effectiveness and efficiency of the air cargo clearance operation currently achieved in Chek Lap Kok Airport, it was the wish of the air cargo industry that the current procedures for clearing air cargo adopted by Customs, carriers and cargo operators would remain unchanged. In this regard, the Air Cargo Clearance System will not be interfaced with the EDI Cargo Manifest System for air cargo clearance (Information Technology Services Department, 1999, Appendix C). This raises two significant issues. Firstly, the duplication arising from such a decision is considered to be inefficient from a commercial perspective, as it erodes the potential degree of facilitation that could otherwise be achieved. In this regard, there is general concern amongst the trading community that once the EMAN initiative is up and running, the cost to industry will increase significantly (e.g. Widdowson, 2001a). The decision for the trading community to effectively lodge two manifests with Government also appears to contradict the advice given to the Finance Committee by the then Trade & Industry Bureau, which stated:

Only one set of cargo manifest needs to be lodged with the Government electronically, thus obviating the current practice of delivering physically three sets of paper manifest at different times to C&SD, C&ED and Trade D (Trade & Industry Bureau, 1999, p.1).

Secondly, the decision appears to be unnecessary from an administrative point of view. Even if ACCS was considered to represent the most effective and appropriate system for clearing air cargo, the decision not to provide an interface with the EMAN system serves to detract from the functionality of ACCS, by removing the opportunity for air cargo clearance decisions to link with clearance decisions for other cargo modes, therefore limiting opportunities for clearing multi-modal cargo movements.

Electronic Manifest System

The recent development of the Electronic Manifest (EMAN) System is considered to be one of the most significant initiatives taken by the Hong Kong Government. Following an extensive feasibility study (see Information Technology Services Department, 1999), the Government approved funds for the development of an EDI manifest reporting system for air, sea, river and rail cargo. However, as discussed below, the initiative specifically excludes road cargo.

The first phase of the EMAN initiative involves the development of a governmentwide communications infrastructure for carriers to submit electronic cargo manifests to Government, while the second phase involves the development of the associated 'back end' systems that will enable relevant Government departments, including HKC&ED, to process information electronically. The system is also designed to provide a common database for storage of manifest information by Government agencies, which will be shared by three user departments, i.e. HKC&ED, the Census & Statistics Department and the Trade & Industry Department. The stated benefits of the EMAN system include improved trade facilitation, improved compliance management, improved quality of data, reduced manual processing, enhanced operational efficiency and improved statistics compilation and intelligence collection capabilities (e.g. Business & Services Promotion Unit, 2000, Information Technology Services Department, 1999 and Widdowson 2001a). According to HKC&ED, the system is scheduled for completion by 2004 (see Wong, 2002).

One of the options considered in the feasibility study was to develop a system that would cater for all modes of cargo, including road cargo. According to the study, the advantage of developing a system which catered for all modes of cargo:

is that it provides a total EDI coverage for all transport modes with a view to improving both the services to the public and the efficiency of the Government. However, due to the huge traffic throughput and stringent time limit requirements of cargo clearance in the road transport mode, the risk of implementing the project is considered very high. Moreover, the business processes in road mode also need to be studied in details (sic) with appropriate liaison with the Mainland. Given all these concerns, it is not recommended that the Road mode be included in the Phase 1 of EMAN (Information Technology Services Department, 1999, p.1-9).

Consequently, the EMAN system is designed to cater for all modes of cargo other than road cargo, for which a separate system, the Road Manifest (ROMAN) system, is being progressed. The ROMAN system is examined later in this chapter.

Implementation of the EMAN system was scheduled for April 2002 (see Wong, 2002). However, the Hong Kong Government has encountered significant difficulties in gaining the support of the trading community, who have expressed their concerns about several aspects of the system, including cost. A key reason for the apparent lack of support for the EMAN system at this late stage of its development appears to be the paucity of public consultation during the course of the feasibility study. For example, the relevant appendix to the feasibility report, which ostensibly provides a summary of feedback received from the trading community, raises a number of issues

of industry concern, including the likely cost of EDI manifest submission, anticipated difficulties in providing certain data elements, the proposed message standard, the requirement to submit air cargo data to Government more than once and issues of data confidentiality. Nevertheless, the study concludes that:

the industry showed positive support on the EDI initiative for manifest submission that would ultimately improve their competitiveness in international trade. Therefore, the Government and Tradelink should proceed with the development of the EMAN service (Information Technology Services Department, 1999, p. Q-3).

At the time of writing, the Government is still in the process of addressing industry concerns, and the EMAN system has not yet been implemented.

The recent study into Customs Cargo Clearance Requirements and Services (Business & Services Promotion Unit, 2000) makes a number of specific recommendations relating to EMAN and related initiatives, including design changes to provide for reengineered business processes such as electronic release of cargo and electronic screening of import and export cargo data. A principal theme of the study is the significant disadvantage to both trade facilitation and regulatory control resulting from Hong Kong's lack of electronic reporting and clearance arrangements for any mode of transport other than air. In particular, this is seen to impede the potential to facilitate multi-modal transhipments. Essentially, the study recommends the development of a single trade-related IT system for the entire trading community, similar to the Singapore solution or, at the very least, the development of fully integrated systems. This particular recommendation reflects the concerns of both the public and private sectors that the proposal to build two separate systems for processing road cargo on the one hand, and air, sea, river and rail on the other, would severely restrict opportunities for facilitating multi-modal cargo, most instances of which include road cargo combined with one other form of transportation.

A major advantage of being able to receive cargo information by electronic means is that it can be readily analysed and processed electronically. This in turn provides for a consistency and completeness of cargo screening and selection that is significantly more effective than could be achieved through manual processes, resulting in substantially greater control over potentially high-risk consignments and greater confidence in identifying and facilitating low-risk cargo. Currently, however, little consistency exists in relation to cargo control, since separate processes exist for each different mode of transport, with most of the processes being manual. For example, whilst the ACCS system enables automated selection of electronically reported air cargo, road and rail cargo selection is essentially based on a manual screening of cargo manifests and for sea and river cargo, only a small proportion of cargo data is screened, most of which is performed manually. In this context, the study recommends the development of a single electronic screening system for all electronically reported cargo, regardless of mode, in order to maximise the efficiency and effectiveness of the screening processes as well as the design and maintenance of the supporting systems. As a consequence, HKC&ED is progressing the development of a single electronic cargo screening system, as part of the 'back-end' functionality of the EMAN system, that will have application to all electronically reported cargo, regardless of mode, with the obvious exception of road cargo.

Road Manifest System

As noted in the previous section, road manifests were specifically excluded from the EMAN initiative, due to the high throughput levels and stringent time limits associated with road cargo, and the identified need to review the relevant business processes prior to developing an automated solution. In 2001, a feasibility study of electronic manifests for road cargo commenced, incorporating a review of business processes. One of the main drivers for the study was the increasing level of demands of the trading community for improved traffic flow and streamlined clearance formalities at Land Boundary Control Points to cope with the expected increase in trading activities, particularly in view of China's impending accession to the WTO. A key priority for HKC&ED is therefore the development of a system that provides the means to apply more effective controls for road cargo, while achieving the higher levels of facilitation expected by industry. The objectives of the proposed electronic road manifest (ROMAN) system, which is designed to meet these requirements, include improved trade facilitation, improved compliance with trade requirements, improved timeliness, availability and quality of road cargo data, improved access for all relevant stakeholders to road cargo information and data, reduced manual processing, enhanced operational efficiency and improved statistics compilation and intelligence collection capabilities (see Widdowson, 2001c).

The current performance pledge is for customs to process all cargo vehicles within 60 seconds of their arrival at a customs kiosk. Consequently, within 60 seconds, a customs officer is required to scrutinise the manifest along with any associated licences, permits or authorisations, question the driver about any points requiring clarification, punch a serial number on the manifest, key-in relevant information into the Land Boundary System, wait for the system response and either instruct the driver to proceed across the land boundary or refer the driver for a customs examination. This time constraint, coupled with the current manual processing procedures leads to a situation where customs staff are unable to carry out their control functions effectively (e.g. Business & Services Development Unit, 2000). The requirement is therefore a system that will provide more effective scrutiny of road cargo manifests by way of electronic real-time profiling.

To ensure timely clearance when vehicles reach the land boundary, the feasibility study recommends a system whereby manifest data may be submitted and received electronically in advance of vehicle arrival. Due to the nature of road traffic, and in particular the potentially short period between manifest submission and the arrival of a vehicle at the land boundary, all data profiling must be conducted in real time.

Such data must be sufficient to allow customs to select those vehicles which are to be subjected to further inspection. The automated selection process will be achieved through the use of profiles that allow customs staff to set selection parameters using one or more manifest data elements, a match against which would result in selection for secondary inspection, alert, or post transaction checking. In addition, it will be necessary for the proposed road manifest system to interface with other relevant systems, such as the Customs Control System, as well as licensing systems for goods such as dutiable commodities and textiles. Consequently, when dutiable commodities permits and other licence/authorisation details are included in the manifest, these may be verified electronically wherever possible with the appropriate external system. Overall the following key options are proposed for the long term processing of road cargo:

 \Box the manifest should be submitted by the driver or authorised agent

- submission of the manifest for Customs clearance purposes should ultimately be mandatory, with a transitional period during which electronic submission is optional
- □ manifests should be required for unladen vehicles
- an automatic vehicle recognition system should be used to identify trucks at the Land Boundary Control Points
- □ driver ID should appear on the manifest
- all manifests should be submitted to Government via third party service providers
- service providers to develop a web-based system for completing and submitting electronic manifests, and EDI should be made available as an option for large companies, as required
- submission of manifests would be via computers at the trucking company, or at the point of loading, such as container terminal, air cargo terminal, factory or warehouse, or through a Service Centre
- service providers to facilitate submission of a trade declaration at or after the time of manifest submission via web page. The manifest data will be accessible to the carrier and, where agreed to by the carrier, it will also be made available to the trader, to facilitate the submission of a trade declaration
- manifest information profiled for Customs purposes by way of a stand-alone profile engine and through an interface with the central Customs database
- real-time validation of licences should be achieved, where possible, by way of a regular download of data into ROMAN from the source systems
- back-end processing of road manifests should be undertaken through the electronic manifest (EMAN) system, in order to maximise the benefits of Government investment in automated systems for processing trade (see Widdowson, 2001b).

Under the proposed automated arrangements, carriers who have lodged electronic manifests will proceed to designated lanes. This will ensure that those who are utilising the electronic system are provided with the highest level of facilitation, although once electronic lodgement is mandatory, this will not be an issue. As the truck approaches the Land Boundary Control Point, the system will identify the truck

by means of an automated vehicle recognition system and will match the vehicle details with the previously captured manifest details, which will already have been assigned a customs status, or 'constraint code' (e.g. licence check, physical examination, X-ray, etc.). Depending on the type of constraint code that is assigned, a green or red light signal will be shown; a green light being a signal for the driver to continue driving past the customs kiosk with no customs intervention required; and a red light being a signal for the driver to stop at the customs kiosk for cargo processing purposes.

It is also proposed to install barriers at the kiosks, designed to automatically lower when a truck is required to stop for customs processing. However, it has been suggested that, following this procedure, a vehicle directed to the examination platform may fail to go there, and attempt to proceed to cross the land boundary. In such a situation, the automatic vehicle recognition system will have identified the vehicle on its approach to the customs kiosk, and the system will be capable of notifying customs at the Examination Platform and at designated observation post(s) that the particular vehicle has been directed to the platform for examination. If the vehicle proceeds past the Examination Platform without firstly being examined, an alarm will be triggered.

At the kiosk, the customs officer may undertake relatively quick checks, such as sighting a paper licence if necessary, or referring the driver to the examination platform or X-ray unit. The reason for performing such quick checks at the kiosk rather than automatically referring all cases to the examination platform is in fact a facilitation measure. For example, if it is necessary simply to sight a paper licence, this could be done in a matter of seconds at the kiosk, with minimal delay to the carrier. If, however, the truck is automatically referred to the examination platform, the same check would delay the carrier by several minutes. Once the relevant action has been taken, the system will be manually updated by HKC&ED to indicate the result of customs intervention, i.e. whether the cargo has been released or detained (see Widdowson, 2001b).

While there are a number of potential benefits to be gained from the introduction of an electronic road manifest system, one of the key benefits is considered to be the potential impact on the facilitation of multi-modal transhipments. In this regard, the

impact of such a system on the broader trading community and the economy at large must be considered in the context of the overall direction of the Hong Kong Government's e-commerce initiatives. As previously noted, since over 80 per cent of Hong Kong's trade transactions by value relate to transhipment cargo, it is a high priority for the Hong Kong Government, and HKC&ED in particular, to facilitate the clearance of multi-modal transhipments. In this regard, the proposed road cargo system seeks to ensure that multi-modal cargo is facilitated to the greatest extent possible. For example, the system is proposed to automate the simplified procedures for inter-modal air/road movements, which HKC&ED is currently trialling, as discussed in chapter 7. It is also proposed that the system will store road cargo manifest data within the same database as other modes of manifest data (air, sea, river and rail), thereby maximising the opportunity to facilitate multi-modal transhipments as other systems, including EMAN, are further developed.

The proposed system also provides a method of achieving a single data transmission to both Hong Kong and Mainland authorities via service providers, and an opportunity to further streamline customs clearance across the land boundary through specific data sharing initiatives between Hong Kong and Mainland Customs. These initiatives are critical to the Hong Kong Government's vision of maintaining and strengthening Hong Kong's position as a leading transportation and logistics hub in Asia. In this regard, an electronic road manifest system is seen to represent the critical missing link in Hong Kong's e-trade capabilities, and one which is essential to maintaining Hong Kong's position as the gateway to China (see Widdowson, 2001b).

When manifest information has been received and validated by the system, it is proposed that it will be profiled by way of both a stand-alone profile engine and through an interface with the central customs database – the Customs Control System, in order to screen the data against information holdings. This will assist HKC&ED to identify potentially high-risk consignments, where details on the road manifest match those of suspect companies, persons or containers. In terms of stand-alone profiles, it is proposed that these may be input against one or more data fields, such as specific commodities that are required to be checked for licensing purposes (e.g. chemicals), specific trucks (e.g. high risk trucking company and/or driver), specific consignees or consignors (e.g. high risk traders) and specific combinations of data elements (e.g. textiles traders trading in non-textile commodities, or certain commodities consigned

to a specific consignee, etc). It is anticipated that this profiling capability will lead to the generation of constraint codes, similar to those currently being used for air cargo.

When initially considering the feasibility of facilitating intermodal transhipments (e.g. air/road, sea/road), it was assumed that, from a business perspective, the appropriate way forward was through a real-time manifest information sharing mechanism between EMAN and ROMAN. However, this does not appear to be the way in which Government is currently heading. For example, the Import and Export (Electronic Transactions) Ordinance, seeks to amend various ordinances, including the Import and Export Ordinance to enable certain transactions, including the submission of manifests, to be carried out through electronic means. The legislative provisions do not mandate the electronic submission of manifest information under section 15 of the Import and Export Ordinance, but rather require carriers to lodge paper manifests unless Customs otherwise gives permission. These provisions currently relate to all modes, i.e. air, sea, river, rail and road.

Whilst the ROMAN feasibility study recommends the mandatory submission of road manifests by electronic means prior to customs clearance, the situation for other modes has not yet been fully clarified. As such, the benefits of information sharing between ROMAN (road cargo) and EMAN (air, sea, river and rail cargo), and hence the opportunity to facilitate multi-modal transhipments, would be significantly reduced if cargo data was unavailable within the EMAN system until some time after customs clearance had taken place.

In view of the fact that the electronic submission of air, sea and river cargo (i.e. via the EMAN system) may not be mandated, the transfer of manifest details from EMAN to ROMAN prior to a truck arriving at the Land Boundary Control Point would only occur if individual members of the trading community were to voluntarily agree to submit such data via EMAN upon arrival of the cargo in Hong Kong. However, HKC&ED have advised that this is unlikely to be the case. For example, they have been informed that air carriers intend to submit manifest information eight to nine days after arrival of the cargo, which coincides with the time at which the information is archived by the carriers, i.e. when no further amendments are anticipated within their systems (see Hong Kong Commerce & Industry Bureau, 2002). Furthermore, even if traders were to agree to submit manifest information via EMAN upon arrival of the cargo in Hong Kong, the EMAN system is not designed for pre-arrival clearance and would not guarantee timely clearance of cargo prior to the cargo leaving the airport or container terminal, in particular for short-haul hubflights. For that reason, HKC&ED is likely to continue to use ACCS for real-time air cargo processing.

The fact that ACCS is being retained for real-time air cargo processing initially suggests the possibility of ROMAN sharing data with ACCS rather than EMAN. However, this option is not feasible from a legal perspective, as the information received by ACCS (both inbound and outbound) represents cargo data and not manifest data. Consequently, it would not be legally possible to treat information received via ACCS (and subsequently shared with ROMAN) as manifest data. However, if the EMAN system could be used to capture real time manifest data, it would be possible to transfer container information from sea manifests to automatically create road manifest data within the ROMAN system in situations where such containers were to be subsequently transhipped through Hong Kong into Mainland China through the land boundary. For other scenarios such as road to air and road to sea, however, intermodal transhipment manifest submission may still be possible.

Nevertheless, the system proposed by the feasibility study is designed to ensure that multi-modal cargo is facilitated to the greatest extent possible. This is achieved through a combination of technical solutions and business process reengineering initiatives. As such, the proposed system should able to accommodate the implementation of simplified procedures for inter-modal and road traffic, similar to the current administrative initiatives, which are examined in chapter 7. Such an arrangement will only be appropriate in situations where customs has confidence in the systems and procedures of the companies involved and could not be introduced as a matter of course for any operator who chose to progress such an initiative.

Under such an arrangement, the carrier would submit the road manifest to customs, who would determine whether a physical examination and/or documentary check is required (this would generally be a fully automated decision-making process). If required by HKC&ED, the examination/check would be carried out at the airport and the truck would be sealed. Upon arrival at the Land Boundary Control Point, the

system would recognise the consignment as a 'facilitated procedure' and the truck would be allowed to proceed. At all times, customs would maintain the right to examine the cargo in the interests of operational integrity. The system will also allow any required cargo inspection to be undertaken at another place. For example, customs may determine that a truck travelling from the Mainland to the Kwai Chung container terminals under these arrangements may have its cargo examined at the container depot rather than at the Land Boundary Control Point, in order to facilitate the passage of the cargo through the land boundary.

Mandating the electronic submission of road manifests for customs clearance purposes provides Hong Kong with an opportunity to share cargo data with Mainland China, as recommended in the study on Customs Cargo Clearance (Business & Services Promotion Unit, 2000). This possibility is further enhanced by the fact that Mainland Customs has recently introduced its own electronic road manifest system, although it is not proposed to mandate the system. A potential benefit from the trading community's perspective is the possibility that a single manifest submission could satisfy both Hong Kong and Mainland requirements. This principle has presented difficulties in the past due to the legalities of sharing information with another administration and the related privacy implications. However, with Hong Kong's introduction of electronic road manifests, such difficulties could be overcome by using the service provider as the transmitter of information to both authorities. This would be achieved by the service provider receiving all data elements from the carrier and sending, separately to Mainland and Hong Kong, their required set of data elements. Such an arrangement would not depend on Hong Kong and Mainland China having identical data fields, as the service provider would simply capture all fields required and forward the relevant fields to the relevant authorities.

As Mainland Customs will only accept either Traditional Chinese or Simplified Chinese in its documentation, it is likely that Chinese would be the preferred language in submitting cross-boundary manifests under such an arrangement. Also, since the vast majority of manifests currently being submitted to HKC&ED are prepared in Chinese, there would be little, if any impact on Hong Kong carriers from this perspective. As well as providing an opportunity to achieve a single data transmission to both authorities, the system would also provide an opportunity to further streamline customs clearance across the land boundary through specific data sharing initiatives between Hong Kong and Mainland Customs. In particular, with both authorities receiving, processing and storing information by electronic means, the opportunity exists to enter into a cross-boundary agreement under which information may be exchanged on particular vehicles and/or consignments. For example, if a vehicle has been searched for contraband by one customs authority, the results of the action may be transmitted to the other authority, which can then use this information to assess the need for and/or extent of examination that they will then undertake. In this way, the efficient use of customs resources on both sides of the boundary are maximised and carriers are not unnecessarily subjected to two sets of enforcement actions. Consequently, the initiative would serve to increase the efficiency of both trade facilitation and regulatory control.

Under the system proposed by the feasibility study, carriers (i.e. drivers or trucking companies) will be provided with a number of options in relation to the manner in which they will be able to submit electronic road cargo manifests. For example, on receipt of consignment information from freight forwarders, cargo terminal operators, etc., the driver may contact the company office (if the driver belongs to a trucking company) and provide them with the relevant details, following which the trucking company office would submit the manifest via the Internet or EDI. Alternatively, it is likely that the client will provide details of the consignment directly to the trucking company office, which would obviate the need for communication of the information between the driver and office. Submission of the manifest may also be achieved by providing the relevant details to a service centre, operated by either the Government or a service provider. The service centre will then input the information into the system on behalf of the driver. Also, the driver may choose to input the manifest information directly into the client's computer at the point of loading. The client (freight forwarder, etc.) may assist in this process by inputting the data on the driver's behalf, which would simply require the driver to authorise its submission using a PIN number (see Widdowson, 2001c).

The feasibility study included extensive consultation with the trucking industry, including the distribution of 8,000 questionnaires to truckers at the three Land Boundary Control Points, as well as consultations across the various industry sectors including truckers, airlines, shipping lines, shipping agents, freight forwarders, air cargo terminal operators, container terminal operators, air express couriers, third party

logistics companies, importers, exporters, warehouse operators and manufacturers. It was found that, while the industry did not oppose the introduction of electronic road manifests, any cost associated with the introduction of such a system should be kept affordable, and that such costs would be accepted provided that tangible benefits were realised in terms of streamlined clearance arrangements at the land boundary. Industry representatives also made the point that implementation of the electronic procedures should be practical and take account of commercial and operational realities (see Crow Maunsell, 2002).

It is considered that implementation of the proposed system will provide both HKC&ED and the trading community with a range of benefits, including increased trade facilitation and improved regulatory control. Specifically, the system will assist to facilitate trade through the provision of a more efficient and streamlined processing of cross-boundary cargo, including transhipment cargo, with further cross-boundary trade facilitation being realised with the introduction of dual submission of both Mainland China and Hong Kong manifests through electronic means. The initiative further promotes and supports the e-Government policy and, in combination with the EMAN system and related Government initiatives, will facilitate the full automation of trade data transmission in Hong Kong. The system should also significantly enhance the compliance management capabilities of HKC&ED, particularly through the automated selection process, which has the potential to increase both the efficiency and effectiveness of profiling, targeting, intelligence gathering, secondary inspection selection, alert, and post-transaction compliance assessment.

SUMMARY – IT FRAMEWORK

In order to maintain its competitiveness in the global economy, Hong Kong is actively developing and promoting EDI platforms for trade-related data. The commercial sector in Hong Kong is already well advanced in its application of information technology solutions, and in many respects the Government is playing catch-up in an effort to provide the trading community with the level of service that it requires in order to effectively compete in the global marketplace. To this end, HKC&ED is in the process of replacing its largely paper-based cargo clearance procedures with automated systems. In essence, the requirements of such systems include electronic

receipt of cargo data, automated processing and electronic communication of the customs status to carriers and other members of the trading community.

Hong Kong is currently operating a number of separate systems for clearing different modes of cargo. This is not altogether a bad thing, as it recognises the markedly different operating environments and associated issues which impact on the various modes of transport, including the degree of integration than can be achieved with the commercial sector's systems in areas such as the air cargo industry. The danger is, however, that as automated solutions for the various modes are developed, the individual systems may not lend themselves to the degree of integration required to maximise the effectiveness of both regulatory control and trade facilitation, particularly in respect of multi-modal transhipments, which are prevalent in Hong Kong.

The Air Cargo Clearance System is currently the only electronic cargo processing system being operated by HKC&ED, with two other systems in the pipeline. A new system for air, sea, river and rail cargo is already partially developed, and at a stage where it can receive electronic manifests, while the proposed automated system for road cargo is at a very early stage of development. Even before these systems come into operation, it is evident that integration is emerging as a potential problem, and that real-time information sharing across modes is unlikely to be achieved. That is not to say that the systems will not be able to perform the tasks for which they were originally intended. However, the potential benefits that could have been achieved in relation to multi-modal cargo are now unlikely to be fully realised without considerable re-engineering.

The main difficulty appears to be the way in which the EMAN system was conceived. The feasibility study acknowledged the potential benefits that could accrue to both industry and the Government in the event that all modes of transport were covered by the system. Despite this, the decision was taken to specifically exclude road cargo due to the 'very high' implementation risks stemming from the high throughput levels and stringent processing time requirements at the Land Boundary Control Points. The fact that the whole matter was resurrected less than two years later indicates that the decision to put road manifests into the 'too hard basket' was somewhat premature and quite possibly counterproductive. Nevertheless, the proposed ROMAN system is designed to ensure that multi-modal cargo is facilitated 'to the greatest extent possible' through a combination of technical solutions and business process reengineering initiatives. In this regard, the apparent strengths of the ROMAN system appear to be the degree of business process re-engineering that has gone into its development, together with the extensive public consultation which accompanied the feasibility study. In contrast, the perceived weaknesses of the EMAN system are considered to stem from a lack of re-engineering and less than adequate public consultation.

The development of the new systems does, however, point to the fact that Hong Kong recognises the need for an effective information technology framework that provides automated processing and clearance arrangements as an enabler to achieving a more effective and efficient means of managing regulatory compliance.

9. HONG KONG RISK MANAGEMENT FRAMEWORK

This chapter examines the risk management framework that is currently in place in HKC&ED, and the initiatives that are being progressed by the organisation in an effort to improve its management of risk. The various issues are examined in the context of the conceptual framework described in chapter 4. Initially, the chapter examines the application of the principles of risk management to individual cargo modes, and subsequently examines a number of HKC&ED's strategic initiatives, both implemented and proposed, that impact across all modes.

AIR CARGO

As noted in earlier chapters, the manner in which HKC&ED approaches its compliance management responsibilities in respect of air cargo differs considerably from the methods applied to other modes. First and foremost, this is due to the high degree of automation that characterises air cargo operations, from both an industry and customs perspective. In this regard, the air cargo industry is able to submit details of individual consignments to customs electronically and customs in turn has the capacity to comprehensively analyse and process the data through its automated systems. This ability to communicate and process air cargo data electronically provides customs with a far more effective and efficient method of assessing potential risks than it could achieve under the manual processing regimes which characterise other modes of cargo processing in Hong Kong.

The mandatory nature of air cargo manifest reporting and the fact that air cargo data is available to customs several hours prior to flight arrival or departure further contributes to the comprehensive and timely nature of HKC&ED's manifest screening and analysis capabilities. This in turn facilitates the assessment of which shipments may pose a risk to Hong Kong's licensing controls and related legislative provisions, and which shipments are likely to pose little risk in this regard. The manner in which the screening process was being conducted at the time of the study, however, suggests that HKC&ED's application of the principles of risk management to this task is somewhat rudimentary. Rather than attempting to identify those consignments that may potentially be in breach of the relevant statutory requirements, the process essentially seeks to identify all consignments that may be subject to licensing controls, with no apparent consideration of the likelihood or consequence of such consignments being either in breach of, or conformity with, the relevant statutory provisions. In other words, rather than assessing the potential risk to regulatory compliance, HKC&ED tends to adopt a risk-averse stance by subjecting all articles to which licensing controls may apply to some form of check. For example, all shipments that are likely to contain controlled chemicals are identified and subjected to some form of documentary check and/or physical examination, regardless of whether the importer of the particular consignment has demonstrated an excellent record of compliance over a period of many years.

This tendency to select consignments for further customs action based on their meeting basic selection criteria, regardless of other parameters that may impact on the potential level of risk, is evidenced by the author's observation of the customs treatment of a particular trader's transhipments. The trader in question is regularly involved in air cargo transhipments, all of which are routinely subjected to physical examination despite the fact that no significant discrepancies have been detected by customs for at least three years. Whilst it may be argued that the selection criteria are valid since they are designed to identify a particular type of risk, the failure to take account of other potentially relevant factors that may impact on the risk rating is considered to limit the sophistication of the adopted risk profiles significantly, which in turn is considered to limit the effectiveness and indeed the efficiency of the overall profiling activity. A further indication that the current risk profiling process lacks a certain degree of sophistication is the fact that a shipment may be selected for further customs scrutiny based solely on its country of origin, irrespective of other factors. Such crude selection criteria would be considered by many customs organisations to be totally inefficient, considering the significant number of import consignments that must be processed and the limited number of resources that are available to conduct the requisite documentary checks and physical examinations which arise from such cargo selections.

A further aspect of the current approach to air cargo profiling that appears to be limiting the effectiveness of the risk assessment process is its focus on identifying potentially high-risk consignments to the exclusion of identifying potentially low-risk consignments. Consequently, rather than seeking to actively identify those consignments that may be able to receive facilitated customs clearance due to their low risk status, HKC&ED's focus appears to be on the identification of high risk consignments, with any shipments falling outside the 'high-risk' selection criteria being deemed, by default, to represent a low-risk. That is not to say that the air cargo profiling operation is ineffective in identifying high-risk shipments. On the contrary, the increasing efforts that HKC&ED is currently placing on the development of quality intelligence appear to be resulting in the construction of more sophisticated profiles. For example, an increasing focus is being placed on assessing and evaluating the potential risks associated with individual consignees. The progress in this area of customs activity is examined further in a later section of this chapter.

Another significant factor which impacts on the ability of HKC&ED to manage the potential risk associated with air cargo is the high level of physical security associated with the airport environment. Unlike other operational areas, such as the Public Cargo Working Areas, which are commonly used by the river trade, the operational environment of the Hong Kong International Airport is considered to be highly secure. However, because of the existence of such a physically secure environment, HKC&ED tends to hold all consignments requiring further scrutiny within the confines of the airport pending completion of all formalities. While this may represent a prudent procedure in many circumstances, over-reliance on the airport's physical security arrangements can serve to limit the flexibility of HKC&ED's air cargo processing procedures and the degree to which the flow of trade may be facilitated. In this regard, there have been suggestions from the trading community that HKC&ED should be more flexible in relation to where air cargo can be examined, and that off-airport examinations should be acceptable in certain situations (see Business and Services Promotion Unit, 2000). The revised Kyoto Convention indicates that this option should be considered for those traders who have established a good record of compliance with customs requirements, and have a satisfactory system for managing their commercial records. Essentially, the issue is one of providing low-risk traders with a greater degree of facilitation (e.g. commercial flexibility) than the level of facilitation that is provided to other traders, as espoused in

the conceptual model (refer Figure 4.7). In order to achieve this, effective risk parameters need to be established in order to firstly identify low risk traders.

The legislative provisions applying to air cargo transhipments within the confines of the airport, which are far more liberal than those applying to other forms of transhipment, also contribute to the manner in which HKC&ED is able to manage risks associated with air cargo. The Air Cargo Transhipment (Facilitation) Scheme exempts most transhipments that occur on-airport from the requirement to be processed as both an import and an export, which includes waiving the requirement to obtain import and export permits. As such, the regulatory requirements for air cargo transhipment, and consequently the scope of HKC&ED's regulatory compliance responsibilities within the air cargo environment are similarly reduced. Nevertheless, the sheer volume of air cargo transhipments and the limited timeframe within which customs must assess the potential risk associated with such time-sensitive consignments, add further dimensions to the task faced by customs officials in processing air cargo.

Whilst the screening of import manifests is conducted on a routine basis, export manifests are examined only for selected flights, or in cases where particular consignments are targeted as a result of specific operations. This severely limits the extent to which export consignments may be risk assessed in the air cargo mode. However, due to the automated nature of the process, export consignments that are manifested on selected flights are able to be subjected to the same intensity of screening and analysis as import consignments, and as such, the overall effectiveness and efficiency of risk assessing exported air cargo is considered to be far superior to the manual methods used to assess the level of risk across other modes of cargo.

In terms of the conceptual model described in chapter 4, it is considered that HKC&ED's approach to the compliance management of air cargo is generally reflective of a risk-managed style. With the assistance of the enabling information technology framework, there is a clear focus on information management as opposed to physical control, with assessments being made prior to the arrival of cargo. Whilst the focus is on identified high-risk areas, the basis on which risks are assessed is somewhat limiting. Certain aspects of air cargo compliance management are,

however, more consistent with the traditional 'gatekeeper' style, including the focus on identifying non-compliance and high-risk consignments, at the expense of identifying low-risk members of the international trading community, and the absence of any 'rewards' for such compliant companies.

SEA CARGO

The operational environment within which sea cargo must be managed is far less secure than that of Hong Kong International Airport, with opportunities for goods to be physically removed from vessels and wharves without customs knowledge. To some extent this situation is addressed through the use of surveillance and patrol activities that are designed to monitor loading, unloading, barge transfer and storage operations within Hong Kong harbour and at the Kwai Chung Container Port facilities. As the level of security within container terminal facilities is particularly high, the main risks from a physical perspective relate to unauthorised delivery from the terminals themselves and barge transfers.

The risk of unauthorised delivery is essentially managed through an assessment of, and reliance on, the integrity of the systems and procedures of the Container Terminal Operators, together with physical gate controls. Physical diversion of containers during barge transfer is, however, more difficult to control. Such diversion is possible in the case of containers that are destined for or discharged from ocean-going vessels that berth at the mid-stream mooring buoys and anchorages, as opposed to those that berth at the container terminals. Whilst surveillance and patrol activities contribute to the maintenance of regulatory control over such movements, their effectiveness is considerably diminished in the absence of quality information about the consignments that are being imported, exported and transhipped as sea cargo. That is, unless customs has access to information from which they can assess which shipments present the highest risk of physical diversion, their surveillance and patrol activities essentially become random in nature, having little more than a deterrent effect.

In this regard, it is pertinent to note that the relevant laws do not currently require industry operators to provide customs with details of sea cargo as a matter of routine. Rather, shipping agents and other members of the international trading community are required to submit sea cargo information to customs only if they are specifically requested to do so. Consequently, HKC&ED does not have access to data relating to the total population of sea cargo, i.e. data relating to all sea cargo that is being imported into, exported from, or transhipped through Hong Kong. As such, the risk assessment of sea cargo consignments is confined to those shipments that are being transported by particular vessels, which themselves have been determined to be highrisk. This approach to managing the risks associated with sea cargo is considered to be significantly less effective than that of air cargo imports, although it parallels the approach currently being adopted for air cargo exports, where the selection of any consignment for further customs scrutiny is entirely dependent upon the initial selection process involving the identification of the subset of vessels (or aircraft) for which cargo manifest information is to be obtained.

Selection of an 'appropriate' subset of vessels for further scrutiny by customs therefore becomes an important issue for sea cargo, since any high risk consignments that are being carried on vessels which themselves are not deemed to represent a high risk, will not be subjected to any form of screening or analysis, and hence will automatically fall outside the scope of HKC&ED's subsequent targeting processes. This method of identifying potentially high-risk cargo is considered to be fundamentally flawed, as it fails to provide customs with the opportunity of selecting consignments independently of vessel selection. Rather, the current method of initial cargo selection is entirely dissociated with potentially significant risk factors such as the type of goods, the consignor or consignee. Such an approach, which is solely dependent upon risk factors applicable to particular vessels or voyages, is considered to represent a most rudimentary risk management approach.

A further factor which impacts on both the efficiency and effectiveness of HKC&ED's risk management activities is the current unavailability of sea cargo data in electronic form, although most, if not all shipping companies already have the capacity, including the technical capability, to provide the information electronically, and are in fact already supplying electronic cargo manifest data to several other customs administrations. This shortcoming, along with the previously identified inability to screen the entire population of sea cargo data is, however, likely to be resolved once the Electronic Manifest (EMAN) system is fully implemented. With the introduction of the EMAN system, which is likely to occur either in full or in part during calendar year 2003 (e.g. Wong, 2003), all shipping companies will be required

to provide cargo manifest data to HKC&ED electronically, and in the case of import cargo, there will be a requirement to provide the information prior to or at the time of vessel arrival (Business & Services Promotion Unit, 2000).

Currently, the import manifests of about 20 per cent of ocean-going vessels are obtained for customs examination and analysis, and very few export manifests are obtained. The procedure for vessel (hence cargo) selection involves the compilation by HKC&ED of a Daily Shipping Information List, which provides a range of information about all incoming ocean-going vessels three days in advance of their arrival. Such information includes the name and type of vessel, estimated time of arrival and departure, voyage details, place of berth and name of shipping agent. Based on this list, the Customs Cargo Research Division selects inbound vessels for further scrutiny based on several criteria including previous ports visited, the compliance record of the shipping company, local and overseas intelligence and so forth, and will then contact the shipping company or the local shipping agent in order to obtain a copy of the vessel's import manifest either in advance or at the time of vessel arrival (Business & Services Promotion Unit, 2000).

On receipt of the manifest, officers from the Cargo Selectivity Unit examine the manifest in order to identify those consignments which are considered to require some form of verification prior to customs clearance. Such verification involves documentary checking and/or physical examination of the goods. Risk indicators used in selecting individual consignments include, but are not limited to the consignee's record of compliance, the description of the goods, the origin and/or destination of the consignment, the weight of the shipment and local and overseas intelligence. Whilst the risk indicators used by HKC&ED have traditionally been drug-focussed, these now include commercial considerations such as intellectual property, dutiable commodities, strategic commodities and other articles subject to licensing controls. For sea cargo, the vast majority of checks are currently undertaken manually, although some such checks are performed by researching the central database, which contains data relating to previously convicted companies and individuals, along with other intelligence holdings (Widdowson, 2000b).

As noted above, comparatively few export containers are selected for documentary check or physical examination. Where such selections are made, they are generally

based on local and overseas intelligence, or where specific indicators suggest that further inspection is warranted, such as indications that container seals have been tampered with.

In relation to the conceptual model, the manner in which sea cargo is currently processed by HKC&ED is considered to be representative of a 'gatekeeper' style of compliance management. Intervention is generally considered to be indiscriminate, with a heavy emphasis on physical control over cargo at the time of arrival. However, one particular aspect of the present sea cargo processing arrangements that notably reflects a risk-based approach on the part of HKC&ED is the inclusion of the consignee's record of compliance as a key indicator in the second level of cargo selection. In this regard, there is clear evidence of a trend towards the identification of both compliance and non-compliance by customs, although its application is currently severely limited due to the absence of an effective information technology framework to support the process. This is likely to change dramatically with the introduction of EMAN, which is expected to result in an overall shift towards a more risk-managed style of compliance management.

RIVER CARGO

As noted in chapter 7, River Trading Vessels (RTVs) may legally berth and load and/or discharge cargo at any place within Hong Kong, although the majority berth at the River Trade Terminal, the Public Cargo Working Areas or the mid-stream buoys. Whilst the River Trade Terminal is a relatively secure area, the level of physical security within the Public Cargo Working Areas is very low, and HKC&ED therefore generally treats all RTV berths outside of the River Trade Terminal as high risk in terms of physical security over containers and their cargo. Consequently, the physical security issues facing customs in respect of river cargo are similar to those relating to sea cargo, but on a much larger scale. The methods of treating the associated risks of diversion of river cargo also reflect those that are applied to sea cargo, i.e. through the use of surveillance and patrol activities and, as noted above, such activities have little more than a deterrent effect due to the lack of information about the cargo that is being transported.
Prior to 1 November 2002, the ability of Customs to effectively risk assess river cargo was further exacerbated by the fact that RTV operators were not legally obliged to advise any government authority of their impending arrival or departure. As such, HKC&ED had no information on which to base vessel selection, let alone cargo selection unless the vessel planned to berth at the River Trade Terminal, where the operational arrangements require prior notification to secure a berth. However, as noted in chapter 7, it is now a statutory requirement for all RTV operators to submit a pre-arrival notification to the Marine Department's Vessel Traffic Centre not less than 24 hours prior to their intended entry into the waters of Hong Kong, or immediately after leaving their last port of call in situations where the journey takes less than 24 hours. Such information, which includes the purpose of the visit and the intended anchorage or berth on arrival, is accessed by HKC&ED who use it to select those RTVs for which they will request a cargo manifest.

The information available from the Marine Department's Vessel Traffic Centre now provides customs with a basis from which to select RTVs for further scrutiny, which places river cargo on much the same footing as sea cargo when it comes to selecting particular consignments for further customs scrutiny. This is because river cargo, like sea cargo, can only be selected for customs scrutiny if the vessel on which it is being carried, or intended to be carried, is firstly selected by customs. Consequently, as is the case for sea cargo, high risk cargo consignments will only be identified as such if they are being carried or are intended to be carried on high risk vessels. Currently, the import manifests of about 2 per cent of RTVs are obtained for customs examination and analysis, compared with about 20 per cent for ocean-going vessels. In respect of export cargo selection, the situation is similar to that applying to sea cargo, with very few export manifests being examined, and with the majority of such examinations being based on specific local or overseas intelligence.

Due to the relatively short voyages of RTVs compared to those of ocean-going vessels, HKC&ED has a similarly short lead-time for examining the vessel information and selecting those vessels for which the cargo manifest must be submitted for customs examination. Such constraints generally result in the vessel selection process being conducted on the scheduled day of arrival. Furthermore, in the case of Public Cargo Working Areas and other areas outside the River Trade Terminal, the selection of vessels for cargo action by customs is undertaken on site. It

is considered that the limited time frame in which vessel selection must take place, the lack of any automated processing and profiling capability and the hitherto paucity or complete lack of information available to customs prior to RTV arrival has resulted in selections that are subjective in the extreme. Add to this the fact that selection of individual consignments is totally dependent upon initial vessel selection, the resultant overall risk assessment process is considered to represent little more than a random sampling exercise.

It is considered that the proposed implementation of the Electronic Manifest (EMAN) system will represent a significant reform of the entire process. Firstly, all import cargo information will be received by customs prior to arrival of the RTV. Secondly, the cargo information will be transmitted in electronic format. Thirdly, the information will be processed and analysed electronically, and fourthly, the cargo will be required to be held by the shipping company pending notification of customs clearance. In theory, the concept has a great deal of merit. In practice, however, the concern is that, compared with the air cargo and sea cargo industry, RTV operators are less likely to be capable of providing the requisite information to customs in the format and timeframe required. This is due to the fact that RTV operators are generally small companies or owner-operators who traditionally rely upon minimum documentation in the course of their activities, and who are likely to be less capable of installing and operating electronic cargo reporting systems than other international carriers such as the airlines and major shipping companies. This issue has recently been realised by the Hong Kong Government, which had intended to implement the EMAN system in 2001, but has delayed its introduction due to concerns being raised by a cross-section of the international trading community, including RTV operators.

In terms of the conceptual model, the processing of river cargo is considered to be similar to that of sea cargo, i.e. indicative of a 'gatekeeper' style of compliance management, due to the indiscriminate intervention, reliance on physical control as opposed to documentary control/information management, a focus on identifying noncompliance and clearance procedures that are conducted at or after the time of cargo arrival.

ROAD CARGO

Unlike air, sea and river cargo, all road cargo that is imported, exported or transhipped is subjected to some form of customs control in Hong Kong. This is achieved by requiring all cargo vehicles that cross the land boundary between Hong Kong and Mainland China to stop at a customs kiosk at one of the land boundary control points in order to undergo customs processing. Such processing, which is discussed in chapter 7, requires all drivers to submit a paper copy of the import or export cargo manifest to customs, together with any related documentation such as licences and notifications. Due to the extremely high level of security that is in place between Mainland China and Hong Kong, together with the strict rules applying to crossboundary movements, customs can safely assume that any vehicles that cross between Mainland China and Hong Kong must do so at one of the three land boundary control points. In this way, customs is able to identify and control every cross-boundary vehicle movement.

Having full physical control over all cargo vehicles enables customs to examine and assess all road cargo manifests prior to importation or exportation. In theory, this is an ideal situation for customs to be in, as it provides the opportunity for 100 per cent of road cargo imports and exports to be subjected to some sort of scrutiny. In practice, however, the situation presents customs with considerable problems, for a number of reasons. Firstly, all documents are presented in paper form, with no existing mechanism for receiving any such data electronically. This necessitates the manual examination of documentation, although a fairly rudimentary automated system is available to alert the customs officer to vehicle registration numbers that have been identified as being 'of interest' to customs, and hence require an increased level of scrutiny. Secondly, due to the existence of a performance pledge that all cargo vehicles will be processed at the customs kiosks within 60 seconds (unless an irregularity is identified by customs), the customs officer must complete the task of processing the truck movement, examining the cargo manifest and associated paperwork and assessing the potential risk within the 60 second time limit. Any system which operates under such conditions must be considered to be less than effective

As noted in chapter 8, considerable progress has already been made towards assessing the feasibility of introducing an electronic Road Manifest (ROMAN) system, which is intended to redress the considerable difficulties currently being experienced in relation to road cargo processing. In recommending the implementation of the ROMAN system, the feasibility study identifies a number of potential risks to the achievement of HKC&ED's objectives under the existing arrangements. These include risks to the achievement of appropriate levels of cross-boundary facilitation for cargo vehicles and their cargo and potentially low levels of compliance with licensing and other regulatory requirements (see Widdowson, 2001b).

In examining the first of these identified risks, it becomes apparent that a number of aspects of the present arrangements have the potential to impact on the level of crossboundary trade facilitation that HKC&ED is able to provide. These include a number of relatively basic issues such as the requirement for all trucks to present a cargo manifest, the need for customs to process road manifests manually, the unavailability of cargo data prior to the arrival of a truck at the land boundary control points, the rapidly increasing volumes of cross-boundary cargo, the lack of automated real-time verification mechanisms and the application of a single clearance regime for all forms of road cargo and truckers. The same factors are also likely to contribute to the potential for non-compliance with regulatory requirements, particularly the fact that HKC&ED is heavily reliant upon manual processing and verification systems, similar to those utilised for sea and river cargo, the difference being that with road cargo customs officials are required to examine the documentation, process the cargo and undertake any assessment of risk within 60 seconds, as opposed to several hours. Such issues serve to indicate that the arrangements currently in place to process and clear road cargo are highly reflective of a 'gatekeeper' style. In this regard, the focus is clearly one of physical control, the identification of non-compliance, 100% check and a lack of pre-arrival clearance.

It is considered that, with the introduction of the proposed ROMAN system, HKC&ED's approach to compliance management of road cargo will change dramatically, through a transition to a more risk-based style. By enabling the electronic receipt and analysis of road cargo data prior to the arrival of the vehicle at the customs kiosk, the customs control focus will be capable of shifting from physical control over the vehicle and its cargo, to one which is predominantly focussed on

documentary control, based on the cargo manifest data. This in turn is likely to facilitate the achievement of a more streamlined control process at the Land Boundary Control Points, including reduced queuing and faster clearance times.

The ROMAN system, when fully implemented, is also likely to assist customs to achieve a more sophisticated method of risk assessment, by automatically checking cargo data against intelligence holdings. In addition, it is anticipated that the proposed system will incorporate a profiling mechanism to assist HKC&ED to identify potentially high-risk consignments. For example, profiles may relate to specific commodities that are required to be checked for licensing purposes (such as strategic commodities), or specific trucks that are required to be checked due to an identified high-risk trucking company or driver. Specific consignees and consignors (i.e. high-risk traders) could also be profiled, or combinations of various elements, such as textiles traders that are trading in non-textile commodities, certain commodities consigned to a specific consignee, or indeed any combination of multiple elements In addition, it is anticipated that the proposed system will permit the real-time verification of licence, permit and notification details, provided such licensing regimes are also automated (see Widdowson, 2001c).

The automation of road cargo manifest processing will not, however, enable all functions to be processed electronically. For example, whilst some licensing systems are already automated and others are in the process of automation, paper licences and permits are likely to continue to remain in use for some time. Commodities covered by such arrangements include, but are not limited to, textiles, strategic commodities, pharmaceutical products and medicines, reserved commodities, radioactive substances and irradiating apparatus, explosives, firearms and ammunition, ozone depleting substances and pesticides. For such commodities it will not be possible for the proposed road cargo manifest system to automatically check licence and/or permit details against the manifest and consequently it will be necessary to physically undertake any required documentary checks at the customs kiosks. This situation highlights the restrictions to achieving an effective and efficient method of managing compliance in circumstances where there are a number of government stakeholders, but not all are involved in the initial re-engineering processes.

RAIL CARGO

As noted in chapter 7, the general physical security of the Hong Kong rail yards was considered to be inadequate at the time of the study, due to the lack of a security infrastructure that would serve to minimise the possibility of any selected or uncleared rail cargo being tampered with or removed prior to customs clearance. However, it is understood that CCTV equipment has now been installed at rail yards, which should enable the yards to be regarded as relatively secure areas, since the rail carriages themselves are unable to be moved away from the rail system, and the process of unloading containers from the carriages is a very conspicuous one.

All imports, exports and transhipments of rail cargo receive some degree of scrutiny from HKC&ED. As is the case for road cargo, customs receives and examines all rail cargo manifests prior to allowing the cargo to either enter Mainland China (in the case of export rail cargo) or leave the rail yard (in the case of import rail cargo). Routine submission of rail manifests to customs is not a statutory requirement, but rail cargo handling agents must submit such manifests to customs on request. However, HKC&ED has a standing instruction in place which effectively 'requests' the ongoing submission of all import and export rail manifests, which effectively creates a mandatory requirement to routinely submit such manifests to customs.

All rail cargo data is, however, received and processed manually, and will continue as such until the electronic manifest (EMAN) system, which is examined in chapter 8, is implemented for rail mode. As such, the ability of customs to examine, analyse and process rail cargo manifests is rather limited, as is currently the situation for road cargo. On the other hand, the selection of rail cargo for customs scrutiny is not dependent upon the conveyance (i.e. train or rail carriage) on which it is carried, as is the case with sea and river cargo, and with air export cargo. In this respect, there is an opportunity for all rail cargo to be risk-assessed by customs, with the assessment being based specifically on the details of the consignment itself.

In managing the risks associated with rail cargo, HKC&ED firstly ensures that all such cargo comes to its attention, by cross-checking the data provided by rail cargo handling agents with other information holdings to which it has access. Having done so, a preliminary assessment of the risk posed by particular shipments is made by the

Customs Duty Inspector, who manually screens the manifests, and identifies potential high-risk cargo based on criteria such as the nature of the goods, the place from which they are consigned and the number of packages that form part of a particular consignment. Based on this preliminary selection, a customs officer at a higher level determines which consignments will be subjected to further scrutiny, including documentary checks and/or physical examinations.

Whilst the process is relatively labour intensive, it is rigorously adhered to due to the politically sensitive nature of cross-boundary transactions, particularly for goods such as strategic commodities. As is the case with other modes of cargo, the selection criteria adopted by customs essentially focus on the nature of the goods or class of goods being traded, rather than the compliance record of individual consignors or consignees, or other criteria that may assist in assessing whether the information provided to customs is correct and in accordance with the relevant regulatory requirements. Another reason why the manifest screening procedure is routinely applied is the fact that the relatively low numbers of rail cargo transactions compared to other forms of cargo transaction allow customs to do so. Furthermore, the small number of cargo handling agents that are involved in rail cargo operations, compared with the many thousands of cross-boundary drivers, makes HKC&ED's task of obtaining data a far more manageable one.

The routine approach adopted by HKC&ED for processing rail cargo is, however, reflective of a 'gatekeeper' style of compliance management, as discussed in chapter 4, with a heavy focus on the identification of non-compliance to the exclusion of identifying highly compliant traders. Furthermore, the risk assessment process is considered to be quite ineffective, as is the case with most other modes of cargo, due to the necessity to manually screen and analyse high volumes of cargo data in a relatively short period of time. There is, however, some semblance of a risk-based style of compliance management in the current arrangements, including the use of documentary control in preference to physical control and a capability of providing pre-arrival clearance. Once the proposed electronic manifest (EMAN) system is introduced, it is likely that further elements of a risk-based style of compliance management will be introduced, as the task of examining, assessing and processing cargo is likely to be far more efficient and effective. As per other modes of cargo that are currently being processed by manual means, the introduction of electronic receipt,

analysis and processing of rail cargo will provide HKC&ED with an ability to compare high volumes of consignment data against any number of risk profiles in a matter of seconds, and in doing so, introduce a degree of accuracy, objectivity and consistency that is impossible to achieve under a manual system.

MULTI-MODAL CARGO

In Hong Kong, multi-modal cargo, i.e. transhipment cargo that is carried by way of two or more modes of transport, is generally not recognised as anything more than an importation in one mode and exportation in another (this matter is discussed in chapters 6 and 7). Consequently multi-modal cargo has no official status in terms of Hong Kong's statutory base, and there are currently only two situations in which HKC&ED's administrative requirements provide for multi-modal consignments to be treated as anything other than an import and export. The first of these is HKC&ED's trial program that has been running at Hong Kong International Airport and the Land Boundary Control Point of Lok Ma Chau, where air cargo that is consigned to Mainland China is being facilitated to the extent that, if customs officers at either the airport or road boundary assess the cargo to be high risk, it will be examined at the airport prior to being trucked to Lok Ma Chau. Any trucks moving goods under these trial arrangements are sealed by customs prior to leaving the airport. If the vehicle is checked at the land boundary, and the seal is not intact, the cargo is submitted to a comprehensive inspection. The second instance of special administrative arrangements applying to multi-modal consignments relates to air/river and river/air cargo movements between the airport and the Marine Cargo Terminal. As in the case of air/road cargo movements, the physical movement of the goods between the two customs control points is monitored through the use of security seals and by other means, as deemed appropriate.

The way in which customs manages compliance in respect of the two recognised forms of multi-modal transhipment serves to highlight a potential risk that is inherent in this type of cargo movement, the risk being that the goods may be diverted into domestic consumption rather than being re-exported, as intended (or claimed). The fact that HKC&ED is starting to recognise the need for and/or benefits of facilitating such movements reflects the emphasis being placed on streamlining the movement of goods between Hong Kong and Mainland China in the wake of China's accession to the WTO, and the related need for Hong Kong to seek to ensure that it maintains its role as a key international trade and transportation hub (e.g. Hong Kong Port & Maritime Board, 2001). Such a focus on facilitating transhipment cargo is to be expected, given the fact that, as discussed in chapter 7, some 85 per cent of Hong Kong's imports by value are subsequently exported and about 90 per cent of these transhipments comprise shipments either originating in or destined for Mainland China (Business & Services Promotion Unit, 2000 and Hong Kong Census & Statistics Department, 1999).

In terms of managing risks to the achievement of their objectives, HKC&ED needs to look beyond the potential risk of diversion into domestic consumption, or at least recognise that other forms of risk treatment may be appropriately applied in certain circumstances. In other words, a 100 per cent physical security regime, even as minor as applying seals to trucks and other conveyances, may not necessarily be the most effective or appropriate means of managing risks of diversion, depending on the particular circumstances. For example, the likelihood and potential consequence of diversion varies widely, depending on the type of goods being transhipped, the type of conveyance, the compliance record of those involved, and so on. Whilst a newcomer to the market who is transhipping dutiable commodities through Hong Kong may pose a relatively high risk to the revenue, a highly compliant, established company undertaking the same type of transaction may pose a very low risk. A demonstrated level of compliance may then be 'rewarded' in terms of the conceptual model by, for example, being allowed to undertake their commercial operations with only intermittent compliance checks (see Table 4.1 and Figure 4.7).

Equally, there must be a recognition that the risk of physical diversion may be very low compared to other forms of risk associated with multi-modal transhipments. For example, the risk of failing to provide an acceptable level of trade facilitation at a time when streamlined, and preferably seamless, movement of goods between Hong Kong and Mainland China is emerging as a political and economic imperative, is something that cannot be ignored. In order to achieve such facilitation, it is necessary for HKC&ED to view multi-modal transhipments as a single transaction, and to assess the potential risk posed by the overall transaction. That is because an overall risk assessment of the transhipment is not possible if the assessment of the 'import transaction' is treated quite separately from the 'export transaction', particularly where Customs is using different systems, methodologies, databases and personnel to risk-assess the two transactions. It is for this reason that recent studies (e.g. Business & Services Promotion Unit, 2000) advocate the integration of the various systems and procedures that are used to process the different modes of cargo, and why HKC&ED is currently in the process of adopting such an approach, with the air/road and air/river transhipment initiatives serving to pave the way for a broader application of the concept.

The recent feasibility study for electronic road manifests indicates that, from a business perspective, the facilitation of intermodal transhipments could best be achieved through a real-time manifest information sharing mechanism between the electronic manifest (EMAN) system for air, sea, river and rail cargo, and the electronic road manifest (ROMAN) system for road cargo. However, this does not appear to be the way in which the Government is currently heading. For example, the Import and Export (Electronic Transactions) Bill 2001, Gazetted on 1 June 2001, seeks to amend various ordinances, including the Import and Export Ordinance, to provide for the use of electronic means in carrying out certain transactions, including the submission of cargo manifests. The proposed legislative provisions will not mandate the electronic submission of manifest information, but rather will require the lodgement of paper manifests, unless Customs otherwise gives permission (see Widdowson, 2001c).

In view of the fact that the electronic submission of air and sea cargo (i.e. via EMAN) is unlikely to be mandated, the transfer of manifest details from EMAN to ROMAN prior to a truck arriving at a Land Boundary Control Point would only occur if industry voluntarily agrees to submit air/sea manifest information via EMAN upon arrival of the cargo in Hong Kong. However, this is unlikely to occur since, for example, air carriers intend to submit manifest information eight to nine days after arrival of their cargo, which coincides with the time at which the information is archived by the carriers (i.e. when no further amendments are anticipated within their systems). In this regard, the feasibility study concludes that, if EMAN could be used to capture real time manifest data, it would be possible to automatically transfer shipping container data from the sea manifest system into the ROMAN road manifest system in situations where such containers were to be subsequently transhipped by truck into Mainland China via the land boundary. It further concludes that multi-

modal manifest submission may also be achievable using the EMAN and ROMAN systems for other scenarios such as road/air and road/sea transhipments (Widdowson, 2001c).

In terms of the conceptual model, it appears that HKC&ED is moving towards a more risk-based style of compliance management with the introduction of the multi-modal initiatives that are being trialled between the airport and land border, and the arrangements that are in operation between the airport and the Marine Cargo Terminal. Such initiatives recognise the different types of risk posed by transhipment cargo as opposed to cargo that is being imported or exported. Whilst there is still a heavy emphasis on physical control, the documentary control measures that accompany the new arrangements appear to be gradually taking precedence. Also, the fact that only certain traders or carriers (read 'low-risk') are able to access the new multi-modal schemes suggests that there is a shift towards identifying and 'rewarding' compliant companies, as espoused by the conceptual model, rather than merely seeking to identify and address instances of non-compliance.

WAREHOUSED CARGO

The study of the feasibility of implementing an open bond system in Hong Kong (Business & Services Promotion Unit, 1999) develops its recommended approach using a risk management framework, in which risk treatments are designed to minimise the key risks faced by HKC&ED following the removal of its physical controls under the traditional closed bond arrangements (refer to the discussion of 'open bond' and 'closed bond' arrangements in chapter 7). In general terms, such risks include the potential risk of dutiable commodities entering the domestic economy without payment of duty, and the potential risk that the duty paid in respect of declared goods is less than that required by law.

In arriving at the recommended model, the feasibility study takes account of a range of operational factors, including the relatively advanced management information systems already in place for tracking dutiable goods and duty liability, the imminent introduction of EDI for dutiable commodities and the structures and experience developed by HKC&ED through its operation of the existing open bond systems for breweries and oil companies. It also takes account of the relatively small size of the jurisdiction in Hong Kong which facilitates the physical attendance of customs staff at licensed premises, the small number of dutiable commodities in Hong Kong, the relatively high level of excise duties and the varying degree of sophistication of company systems and procedures (Widdowson, 1999).

Figure 9.1 depicts the flow of dutiable commodities, including the movement of goods into, out of and between warehouses. It also shows a number of potential leakage points (depicted by the curved arrows). The potential leakage points of specific relevance to licensed warehouses (whether open bond or closed bond) include declared goods failing to arrive in the warehouse, goods being removed from warehouse stock and goods being diverted during bond-to-bond movements or en route for export (similar to the issue of diversion during transhipment which is examined in the previous section). In addition, there are certain risks associated with in-bond-operations and related activities, including incorrect marking/re-marking and incorrect sampling, the latter leading to possible shortpayment of duty.

In figure 9.1, the physical controls or risk treatments that are generally in place under closed bond arrangements are depicted as dots around the warehouse. These physical controls essentially represent the compliance management strategies employed by HKC&ED under the closed bond system. Such controls are removed or significantly modified under an open bond system, and consequently any move to an open bond approach requires the development of a series of controls or risk treatments that are designed to ensure the effective management of the risks in the absence of the physical controls which characterise the closed bond arrangements.

From a regulatory control perspective, none of the identified risks are acceptable and must be managed in some way, based on a consideration of the potential likelihood and consequence of revenue leakage through the various points in the absence of full-time physical customs supervision. It would be fair to say that, if all physical controls were removed and there was nothing to replace them, the risk of revenue leakage would be extremely high. It would also be fair to say that certain potential points of leakage may, under any system, represent lower risks than others. For example, based on the operational information available to the feasibility study (Business & Services Promotion Unit, 1999), the risk of revenue leakage during bond-to-bond movements would be much lower than during movements for export.



Figure 9.1: Flow of dutiable commodities, including potential leakage points

Source: Widdowson, 1999

The controls or risk treatments which characterise closed bond arrangements, but which are generally abandoned under an open bond system, include 100 per cent checking programs, a full-time customs presence at the warehouse, supervision of all packing and unpacking of containers, restricted operating hours, routine verification of shortshipments and damaged goods, compulsory destruction of damaged/unusable goods under customs control, routine stock checks and other in-bond-operations routinely supervised by customs. As such, the closed bond arrangements are characterised by the key elements of a 'gatekeeper' style of compliance management, particularly the heavy emphasis on physical control, indiscriminate intervention, the focus on identifying non-compliance to the exclusion of identifying compliant practices, and the maintenance of physical control pending revenue payment.

The following risk treatments, on the other hand, some of which may be found in closed bond systems, characterise the approach to compliance management under an open bond system. In some instances these are designed to reduce the likelihood of revenue leakage, such as the imposition of strict initial and ongoing licensing criteria. Other risk treatments are designed to lower the consequence (or impact) of revenue leakage, such as the requirement for security bonds. Such risk treatments include the use of risk management techniques, licensee self-assessment, strict eligibility criteria and operating conditions for warehouse licensees (initial and ongoing), record keeping requirements, regular reporting requirements, sanctions for non-compliance, use of

security bonds, duty liability provisions, audit programs, random check programs, targeted checks, use of customs intelligence networks, customs intervention capability, and incentives for compliance (Widdowson, 1999). Such elements of compliance management are reflective of a risk-based style of compliance management, as espoused in the conceptual model.

The proposed model for implementing an open bond system in Hong Kong (see Business & Services Promotion Unit, 1999) includes a set of clearly defined eligibility criteria for obtaining a warehouse licence, in order to minimise the likelihood of allowing 'high risk' individuals to own and operate licensed premises. To this end, the eligibility criteria include requirements that licensees are financially stable and that they are 'fit and proper persons', that is, they have not been convicted of any customs-related crime, or any other crime that is punishable by imprisonment for a period of one year or more. Potential licensees are also required to demonstrate that they are able to implement and maintain systems and procedures that are capable of effectively managing stock control and all associated accounting procedures. In particular, the relevant books of account and associated recording systems must be capable of providing an adequate audit trail of all goods entering, leaving or stored in the warehouse, and must be capable of identifying the quantum of unacquitted duty liability at any given time. Licensees are also required to have effective security arrangements in place to ensure that the goods held in the licensed premises are appropriately protected.

Customs compliance management activities under the open bond arrangements comprise a mixture of real-time checks and post-transaction compliance activities, including comprehensive audits of a licensee's systems and procedures, in order to assess the degree of confidence that may be placed in such systems under the self assessment arrangements which characterise the open bond approach. Such initiatives also include regular desk audits, which do not require customs personnel to enter the licensed premises, targeted field audits, which involve the on-site examination of specific aspects of the warehouse documents, systems, operations and procedures, with such audits representing the principal method of monitoring and assessing the licensee's ongoing level of compliance. In addition, a range of targeted and random checks of packing, unpacking and processing operations are included in the range of compliance management initiatives, with any customs attendance or intervention being determined on a risk-assessed basis. Sanctions for non-compliance also form an integral part of the overall compliance management strategy, ranging from warning letters, monetary penalties, criminal prosecution and licence revocation, which closely reflects the hierarchy of enforcement actions as depicted in the Ayres & Braithwaite (1992) enforcement pyramid, and is consistent with the conceptual model.

Compliance management of the self-assessment approach adopted under the open bond system also includes a range of obligations for the licensee. These include an obligation to maintain the systems and procedures that have been assessed and approved by customs, and to advise customs, generally on an exception basis, of any proposed change to the systems or procedures that may in any way impact on their ability to comply with the relevant regulatory requirements. In addition, HKC&ED require the licensee to establish a security bond (bank guarantee) equal to a percentage of the total duty that the licensee would be liable to pay to customs in the event that the warehoused stock cannot be accounted for. The percentage may be very low, or as high as 100 per cent of the potential duty liability, depending on the assessed risk posed by the particular warehousing operation. Other obligations of the licensee include regular, periodic reporting to customs on aspects of the warehouse operations, including details of all goods received, stored, processed and/or dispatched during the reporting period, together with a statement of duty liabilities. As previously noted, such strategies are consistent with the conceptual model's definition of a risk-based style of compliance management.

CORPORATE ISSUES

Consistency of Approach

As noted in the earlier sections of this chapter, a key issue for HKC&ED under the present arrangements is the need for a more integrated approach to its risk management activities across the various modes of transportation. Such a need is particularly apparent in the case of multi-modal transhipment cargo, for which customs is seeking to provide a greater degree of facilitation, in the wake of China's accession to the WTO (e.g. Hong Kong Port & Maritime Board, 2001).

The need for a more consistent approach to risk management is also evident from a regulatory control perspective, particularly when considering the movement of goods

between Hong Kong and Mainland China. There are several ways in which cargo is transported between the two territories – by air, sea, road, rail and river, of which road and river are the most common. However, when examining the risk management regimes applying to the two most common modes of transportation between Hong Kong and Mainland China, it becomes clear that, currently, two quite disparate approaches to the management of risk are being taken.

On the one hand, HKC&ED ensures that every cargo vehicle that is taking goods into or out of Hong Kong reports to customs at one of the land boundary control points, and submits an import or export cargo manifest to HKC&ED as a prerequisite for customs clearance to be given, thereby allowing the vehicle to proceed. In this way, the cargo of each and every northbound (export) and southbound (import) vehicle is scrutinised in some way by customs, albeit by way of documentary check or physical examination, or both. On the other hand, however, the vast majority of river cargo, both inbound and outbound, is not reported to customs prior to its importation or exportation. This is due to the fact that, for river cargo, customs selects a very small proportion of River Trade Vessels in respect of which the cargo manifest will be further examined, which at the time of the study represented approximately 2 per cent of imported river cargo, and very little in the way of export river cargo.

It is pertinent to note that, depending on which part of Southern China the goods are moving to or from, in many cases, the determining factor concerning the mode in which goods are transported between Hong Kong and Mainland China is commercial in nature, as the logistics may allow for transportation by either road or river. Consequently, in relation to goods that are traded between Hong Kong and China, the level of customs control varies significantly depending on the mode in which they are transported, with, HKC&ED effectively controlling road cargo at the expense of river cargo. As such, HKC&ED could not be considered to be adopting a consistent approach to managing the risk of non-compliance with regulatory requirements, unless it has determined that river cargo represents an extremely low risk, which does not appear to be the case. Whilst possible reasons for this disparate approach are further examined in the following chapter, it should be noted that this problem is currently being addressed by HKC&ED, and the situation is expected to change dramatically with the introduction of mandatory reporting for all modes of cargo prior to customs clearance and the introduction of the Electronic Manifest (EMAN) system for river cargo (see Business & Services Promotion Unit, 2000).

Trader Risk Assessment

As noted throughout this chapter, there is a clear tendency for HKC&ED to adopt a 'gatekeeper' style of compliance management by directing its resources to the identification of non-compliance, at the general expense of initiatives aimed at identifying compliant traders and service providers (such as airlines, freight forwarders, express carriers, etc.). By adopting such an approach, there is virtually no scope for proactively facilitating consignments that are being traded by or through recognised compliant companies, which results in a situation where 'trade facilitation' becomes nothing more than a by-product of a general 'gatekeeper' regime in which cargo is 'facilitated' simply because it has not been selected for further action, for whatever reason, but particularly as a result of resource constraints.

HKC&ED is, however, seeking to redress this situation by improving its research and analysis capabilities and to direct those capabilities to the identification of both compliance and non-compliance. As such, a key research activity is the identification of those members of the international trading community who have demonstrated a high level of regulatory compliance, and who may therefore be regarded as presenting a relatively low risk. This initiative, referred to by HKC&ED as 'trader risk assessment', which is consistent with the conceptual model's risk-managed style of compliance management, is still in its early stages of development and implementation, but is nevertheless making reasonable progress in achieving its objectives (e.g. Business & Services Promotion Unit, 2000 and Wong 2002 and 2003).

Prior to these initiatives, the organisational units responsible for research and analysis activities varied according to the particular mode of cargo under consideration (e.g. Sea Cargo Research Division, Air Cargo Research Division, etc.), as well as the Intelligence Research Division, which took a more holistic view of areas of customs concern and provided intelligence reports to the various operational areas of HKC&ED. Consequently, HKC&ED's efforts in this area were quite fragmented, and it is considered that, apart from the Sea Cargo Research Division, the principal focus

was the identification of potential instances of non-compliance at the transactional level. As a result of recommendations made to HKC&ED in a comprehensive review of its cargo clearance procedures, the organisation commenced a program aimed at shifting the emphasis of its research and analysis activities from individual transactions to the overall level of compliance of commercial enterprises. Specifically, the review recommended that:

Customs research and analysis units should be developed and/or maintained through properly resourced individual teams based on functional areas, using shared information systems (Business & Services Promotion Unit, 2000, p. 203).

Trader risk assessments should be carried out by Customs Research & Analysis teams in consultation with operational areas, with information shared through a single Trader Database...Major traders across all modes should be identified and, where appropriate, audited to determine the integrity of their systems and controls, with a view to implementing audit-based controls for these traders (Business & Services Promotion Unit, 2000, p. 208).

As a result of these and other recommendations, a new Intelligence Bureau was established in mid-2002, with the stated intention of providing the means by which organisational decision-making processes at all levels of the organisation may be based on 'the effective and efficient use of intelligence and risk management techniques' (Hong Kong Customs & Excise Department, 2002c). According to HKC&ED:

The new direction of further use of intelligence and risk management in customs operations enables the department to further increase its strength in targeting accuracy and risk profiling against smuggling, drug trafficking, intellectual property rights piracy, etc.; and enhance trade facilitation as well as protection of revenue and consumer's rights...It is expected that the new Intelligence Bureau will bring the following major benefits to the department:

 (a) Facilitating top level decision making on allocation of resources and formulation of policies;

- (b) Encancing operational efficiency through better use of intelligence and risk assessment techniques;
- (c) Facilitating the legitimate trade by reducing inspection/search; and
- (d) Achieving more with less (Hong Kong Customs & Excise Department, 2002c).

The fact that risk assessment of traders will form an important part of the Bureau's work points to the fact that HKC&ED recognises that assessment of traders as entities is a far more effective method of managing compliance than assessing consignments in isolation. This is because traders are responsible for initiating shipments and have the most intimate knowledge of their cargo, which usually exceeds the level of knowledge that a responsible carrier or cargo handler may have. Furthermore, in the case of deliberate infringements, it is generally the trader that misleads the carrier, who in turn inadvertently misleads the customs authorities (see Widdowson, 2000c).

SUMMARY - RISK MANAGEMENT FRAMEWORK

HKC&ED currently adopts a very compartmentalised approach to risk management, with the relevant method of operation being heavily dependent upon the particular mode of transportation. The general manner in which HKC&ED applies the principles of risk management to the processing of cargo is considered to be representative of a 'gatekeeper' style of compliance management. Intervention is generally considered to be indiscriminate, with a heavy emphasis on physical control over cargo at the time of arrival. In some instances (e.g. sea cargo and river cargo), HKC&ED's approach is influenced by the relatively insecure operational environments which characterise the particular mode of transportation. Other influencing factors include the unavailability of relevant information (e.g. sea cargo and river cargo), or the requirement to manually assess information due to the absence of an effective information technology framework to support the process (applies to all modes of transport with the exception of air cargo).

With the imminent introduction of the proposed automated processing systems, it is likely that the organisation's approach to compliance management will change dramatically, towards a more risk-based style. Such systems will enable customs to electronically receive and analyse cargo data prior to the physical arrival of the cargo, thereby allowing a far more sophisticated level of profiling, which in turn will enable customs controls to be predominantly focussed on the information associated with consignments, as opposed to the current focus of physical control.

Two areas in which HKC&ED's approach to risk management is considered to be more reflective of the conceptual model's risk-based style of compliance management are the arrangements for processing air cargo and the compliance management of bonded warehouses. In respect to the former, the task of managing compliance using a risk management approach is greatly assisted by a highly secure physical operating environment, as well as the availability of the information technology systems in use by both customs and the international trading community. An enabling information technology framework of this nature provides the opportunity for customs to focus on documentary control/information management as opposed to physical control, with assessments capable of being made prior to the arrival of cargo.

A particular aspect of the current approach to cargo profiling that appears to be limiting the effectiveness of the risk assessment process is its focus on identifying potentially high-risk consignments to the exclusion of identifying potentially low-risk consignments. Consequently, rather than seeking to actively identify those consignments that may be able to receive facilitated customs clearance due to their low risk status, HKC&ED's focus generally appears to be on the identification of high risk consignments. However, there is evidence to suggest that HKC&ED is in the process of redressing this situation through its trader risk assessment initiative, which is directing resources towards the identification of both compliance and noncompliance, including the identification of those members of the international trading community who have demonstrated a high level of regulatory compliance, and who may therefore be regarded as presenting a relatively low risk, consistent with the conceptual model's risk-managed style of compliance management.

Further evidence to suggest that HKC&ED is moving towards a more risk-based style of compliance management is the introduction of the multi-modal initiatives that are being trialled between the airport and land border, and the arrangements that are in operation between the airport and the Marine Cargo Terminal. Such initiatives serve to recognise the different types of risk posed by transhipment cargo as opposed to cargo that is being imported or exported, and also provide increased levels of

facilitation for those companies who are considered sufficiently compliant to participate in the new compliance management arrangements.

10. COMPARATIVE ANALYSIS

To this point, the study has examined a range of international customs initiatives that are designed to manage regulatory compliance in relation to international trade, as well as a variety of strategies that have been adopted by the Hong Kong Customs & Excise Department (HKC&ED) to manage compliance in such circumstances. These strategies have been examined in the context of the compliance management conceptual framework, which was introduced in chapter 4. The study now proceeds to analyse the issues identified in previous chapters, in order to determine whether the effectiveness of risk management strategies is dependent upon the operational setting in which they are employed. In keeping with its examination of the issues in the preceding chapters, the analysis examines each of the elements of a risk-managed style of compliance management in the context of a country's statutory framework, the administrative framework of the country's customs administration, the technological framework of both industry and government and the type of risk management framework adopted by the country's customs administration. Finally, the analysis examines the overall balance between regulatory control and trade facilitation that is being achieved by the various customs administrations by reference to the conceptual model.

STATUTORY FRAMEWORK

Table 4.1 identifies three elements of a country's statutory framework that are considered to characterise a risk-managed style of compliance management. These include a legislative base that provides for flexibility and tailored solutions; a legislative base that recognises responsibilities for both government & the trading community in achieving regulatory compliance; and the existence of sanctions for non-compliers.

The 'odd man out' amongst these is the requirement for sanctions, since all compliance management regimes must ultimately resort to sanctions at some stage, whether adopting a 'gatekeeper' or risk-managed style, even if only in the most extreme cases of non-compliance. Ayres & Braithwaite (1992) argue, for example,

that regulators should always maintain the capacity to impose tough sanctions, and contend that compliance strategies that are based solely on persuasion and self-regulation are likely to be exploited. Sutinen (1996) further comments that 'chronic flagrant violators' must be controlled, even though they may represent a small proportion of the total population and the extent of their illegal activities is minor.

In examining the ingredients of an effective legislative framework, one could argue that a legislative base which provides for such flexibility and tailored solutions should simply be regarded as an enabler to the achievement of a risk-managed style of regulatory compliance, in a similar way as the elements of an effective information technology framework are regarded as enablers (refer chapter 4). Indeed, such a view may be held in respect of the remaining elements of a country's statutory base. While such an assessment is reasonable, it is considered that a statutory framework and information technology framework differ considerably in that a legislative base governing the movement of international trade can be found in all countries of the world, whereas the same cannot be said of an information technology framework, although one day this may well change. Consequently, a country's legislative provisions, as they relate to international trade, will either adopt a 'one size fits all' approach to compliance management, or else they will provide the degree of flexibility required to treat compliant traders in a more facilitative way than other traders. In the same way, a country's legislative provisions will either place the onus for achieving regulatory compliance solely on the trading community, or recognise the joint responsibilities in achieving regulatory compliance for both the government and the trading community.

The international examples examined in chapter 5 all provide for a flexible approach to compliance management, and the ability to tailor solutions for highly compliant traders, through initiatives that 'reward' compliance such as the Australian Accredited Client Program, the United States concept of 'accounts' and the South Africa's Accredited Client Scheme. Similarly, whilst all appear to recognise the joint responsibility of government and industry in achieving compliance, such recognition is more implicit than explicit in the case of Australia. On the other hand, the concept is most explicit in the 'informed compliance' provisions of the U.S. Customs Modernization Act, which seek to ensure that appropriate 'client service' elements are progressed, including the provision of clear administrative guidelines, education, awareness and advice.

Hong Kong's legislative base is silent on the issue of joint responsibilities in achieving compliance, and it has traditionally provided traders with a single method of demonstrating their compliance with regulatory requirements. However, this is now changing, as evidenced by the introduction of initiatives such as the Air Cargo Transhipment (Facilitation) Scheme. As noted in chapter 6, the Hong Kong Government's decision to introduce this scheme was heavily influenced by the fact that air transhipment cargo is under the tight security control and close surveillance of HKC&ED at all times during its transhipment within the confines of the highly secure Hong Kong International Airport. As such, the Government considered it appropriate to provide greater flexibility and increased facilitation to registered operators within such a secure operational environment. As previously noted, a principal reason for limiting the arrangements to the airport is due to the relatively less secure operational environments associated with other modes of transport. Consequently, despite a call from industry representatives to extend the transhipment arrangements to other modes of transport, such as sea cargo and road cargo (e.g. Business & Services Promotion Unit, 2000), such requests have not yet been acceded to.

Similarly, Hong Kong's decision to provide more flexible and facilitative arrangements for the operators of licensed premises such as licensed warehouses is dependent upon such operators meeting strict eligibility criteria, including a demonstrated ability to maintain appropriate levels of physical security within the licensed premises. In the event that these requirements cannot be met, the operators would not be authorised to operate under the more liberal open bond arrangements. In this regard, it is pertinent to note that one of the principal risks relating to potential 'leakage' of dutiable commodities into the economy of the country is the unauthorised removal of stock on which duty has not been paid, which generally occurs through larceny and pilferage (e.g. Business & Services Promotion Unit, 1999).

The above examples serve to illustrate two quite separate ways in which Hong Kong's legislative provisions have been constructed in order to provide the level of flexibility required to effectively manage compliance within the various industry sectors. In the case of transhipment cargo, the Government has sought to ensure that the application

of the more liberal arrangements would only extend to goods that are handled within the strict confines of a secure area by limiting the scope of the provisions themselves to goods transhipped within the confines of Hong Kong International Airport. In the second example, the relevant legislation provides that a licensed warehouse may be established at any place within the country, provided certain criteria are met. In this case, however, the criteria relating to the physical security of the premises are developed and implemented at an administrative level.

Consequently, while Hong Kong is not averse to providing flexible and tailored compliance management solutions, it recognises that a key factor that influences its ability to adopt such an approach is the level of security at points of importation, exportation, storage and transit. Similarly, it is apparent that the effectiveness of such an approach is also influenced by the physical infrastructure of facilities at points of importation, exportation, storage and transit, and indeed the geographic features of the country, when one considers the logistical difficulties associated with, for example, Despite the fact that certain aspects of the operational river trading vessels. environment may influence the effectiveness of such initiatives, it is considered that the underlying principles of risk management (see Table 4.1 and Figure 4.7) remain valid, and it is only the way in which the principles are applied that is influenced by such situational factors. In the case of cargo transhipments, for example, the general principle of flexible solutions has been accepted by the Hong Kong Government, but the way in which they are willing to apply the principle is influenced by a range of situational factors, particularly those relating to physical security and infrastructure.

ADMINISTRATIVE FRAMEWORK

The conceptual model identifies eight elements of an authority's administrative framework that characterise a risk-managed style of compliance management (refer Table 4.1). These include strategies that may vary dependent upon the identified level of risk; the use of administrative discretion; an appropriate balance between regulatory control and trade facilitation; a dual enforcement/client service focus; the adoption of a consultative, cooperative approach; a focus on assessing the integrity of trader systems and procedures; an increased focus on post-transaction compliance assessment; and the availability of effective appeal mechanisms. The achievement of

an appropriate balance between regulatory control and trade facilitation is discussed at the end of this chapter.

The first of these, i.e. selection of appropriate strategies dependent upon level of identified risk and the use of administrative discretion, are evident in the international models, with the most prominent example being the Australian Customs Compliance Matrix, in which the ACS selects a risk treatment (i.e. strategy, or operational response) that is designed to match trader behaviours and motivations. For example, education and training may be appropriate responses for traders who are not yet fully compliant, but are attempting to achieve a state of compliance and are not showing indications of actively attempting to 'beat the system'. At the other end of the spectrum, however, the appropriate risk treatment for those who are seeking to defraud the Government is likely to be one of investigation and prosecution. This approach is closely aligned to the 'compliance management' philosophy that has been adopted by Australia and others, in which the principal focus of customs is to improve future levels of compliance, rather than concentrating resources on the rectification of past errors. The contention that different approaches to regulatory compliance are warranted is supported by Ayres & Braithwaite (1992), who argue that tough enforcement measures are not necessarily more effective than gentle persuasion, and vice versa, but that the most appropriate strategy depends on the particular Indeed, they contend that different industry structures will be circumstances. conducive to different degrees and forms of regulation, and that regulators should therefore be responsive to such differences when developing compliance strategies.

In Hong Kong, there is no real evidence that a 'compliance improvement' approach is being pursued, with the possible exception of air cargo, where memoranda of understanding have been established with the limited number of operators in the air cargo industry that are involved in providing customs with the information necessary to assess and process cargo. Such memoranda include clauses that specifically relate to a mutual effort to maintain high levels of regulatory compliance in an effort to achieve an effective balance between customs control and the facilitation of legitimate trade. It is probable that the air cargo industry has been the first to be approached to address its compliance management responsibilities in this manner due to the relatively small number of industry operators with which customs is required to negotiate, thereby making the task a fairly manageable one. Contrast this with the thousands of cross-boundary truck drivers and river trade vessel operators, and the 'manageability factor' becomes readily apparent. With this in mind, it is considered that the rail cargo industry is also suitably positioned to progress a similar type of arrangement, and it is possible that, as each of the rail cargo handling agents (of which there are five) commence to report cargo to customs electronically, HKC&ED may pursue arrangements similar to those within the air cargo industry.

In this regard, it is considered that, in the case of Hong Kong, the demographics of a particular industry influence the degree to which (and the methods by which) customs may adopt the type of approach epitomised by the Australian Customs Compliance Matrix. For example, the river trade industry has particularly complex demographics due to the heterogeneity of the industry sector, which ranges from multinationals through to owner-operators. Such a complex demographic may, however, provide HKC&ED with an ideal opportunity to exercise administrative discretion and progress compliance management strategies that vary in accordance with the level of risk posed by various sectors of the industry. For example, multinational shipping terminal operators that are involved in the river trade should be expected to be able to supply accurate, complete and timely information about river cargo, as such companies run highly automated information systems, and consequently it should be possible for HKC&ED to generally place a greater reliance on the documentary records from such companies than would be the case for small owner-operators. As such, it is reasonable to conclude that situational factors may influence the effectiveness of risk management strategies in a positive way, rather than merely impeding their effectiveness.

Additional elements of an authority's administrative framework, which the conceptual model identifies as being characteristic of a risk-managed style of compliance management, include the adoption of a dual enforcement/client service focus and a consultative, cooperative approach. These elements are illustrated in the second level of the Risk-based Compliance Management Pyramid (refer Figure 4.7), and include strategies such as education, technical assistance and guidance. Such strategies are prominent in the international examples, which are examined in chapter 5, particularly the U.S. strategy of 'informed compliance', which seeks to achieve high levels of voluntary compliance with customs laws and regulations from the international

trading community, based on the premise that such compliance may only be achieved if traders are fully informed of their entitlements and responsibilities.

HKC&ED has made considerable progress in this area, and the level of industry consultation and assistance that is provided by the organisation is noticeably increasing through the introduction or enhancement of a range of initiatives including industry forums, user surveys, assistance hotlines and improved web services. Examples of this include the One-Stop Advisory Centre for Cargo Clearance Matters, which provides traders with access to comprehensive information and assistance on a broad range of issues associated with importation, exportation and transhipment (see Wong, 2000). A further example is HKC&ED's public recognition that the use of enforcement methods is not always likely to be effective in producing the required outcomes, and that in certain circumstances, an increased level of public education may represent a more appropriate compliance management strategy (see Hong Kong Customs & Excise Department, 2002a).

Based on the evidence to hand, one factor that may influence the effectiveness of such strategies appears to be the level of organised representation within individual industry sectors, such as industry associations and unions. In this regard, HKC&ED has made extensive use of such groups in communicating details of industry entitlements and responsibilities, as evidenced by the regular meetings of the Air Cargo Customer Liaison Group, the Sea Cargo Customer Liaison Group, the Cross Boundary Transport Industry Customer Liaison Group and similar consultation mechanisms in other industry sectors.

Two further elements of an authority's administrative framework which, according to the conceptual model, characterise a risk-managed style of compliance management include an increased emphasis on post-transaction compliance assessment, and a focus on assessing the integrity of trader systems and procedures, as opposed to the 'gatekeeper' style which focuses on assessing the veracity of individual transactions (see Table 4.1). In this regard, a feature of the U.S. 'informed compliance' approach is the appreciable move away from the assessment of individual transactions in favour of an overall assessment of the integrity of trader systems and procedures, which ultimately influence the degree of trader compliance and the potential for improvement in compliance levels. Similarly, the Australian 'compliance improvement' approach and Accredited Client Program, and the South African Accredited Client Scheme are also illustrative of strategies that place greater emphasis on assessing the overall integrity of trader systems and procedures. In all such cases, compliance assessment is conducted in a post-transaction context.

With few exceptions, HKC&ED is heavily transaction-focussed, with very little resource being devoted to assessing the integrity of trader systems and procedures. However, some steps have been taken to redress this situation, through the recent introduction of the trader risk assessment initiative, although this initiative does not currently appear to delve too deeply into company systems and procedures, but rather focuses on the compliance history of traders. The exception is the open bond initiative, which HKC&ED is progressively introducing as the preferred method of managing compliance in licensed warehouses. Under this arrangement, Hong Kong is moving towards a greater reliance on self-assessment by the operators of licensed premises, and verification is effected by way of post-transaction compliance audits of the operator's systems and procedures, with a view to determining the integrity of such systems.

The principal reason why such measures have not been extended more broadly, particularly to Hong Kong importers, is considered to be HKC&ED's total reliance on cargo manifests (which are submitted by carriers, e.g. airline companies, and freight forwarders) to assess risk at the time of importation, as opposed to other customs authorities, which generally have access to trade declarations (which are submitted by the traders themselves) at such time. The only exception is in the case of dutiable commodities, for which dutiable goods permits (that are essentially akin to trade declarations) are required to be submitted to HKC&ED prior to customs clearance. Notably, dutiable commodities are those that are generally held in licensed premises, which serves to explain why HKC&ED is currently well equipped to assess trader integrity in the licensed premises sector, but not beyond that sector. This situation is again brought about by Hong Kong's 'free port' legacy, and it appears unlikely that the Government will be able to change this situation in the short- to medium-term due to the high expectations of the trading community that the situation will continue This again highlights the fact that commercial traders' views and indefinitely. expectations about acceptable levels of facilitation and customs intervention may influence the way in which the principles of risk management may be applied to the management of compliance in certain operational settings. Further, since HKC&ED does not have policy responsibility for determining the time at which trade declarations are to be submitted to Government, it is evident that the broader regulatory framework governing particular industry sectors may have a significant impact on an administration's ability to adopt a policy of assessing trader systems and procedures as opposed to focussing on individual transactions.

The final element of an authority's administrative framework, which the conceptual model identifies as being characteristic of a risk-managed style of compliance management, is the establishment of effective appeal mechanisms. In this regard, Hong Kong, as well as the various international examples, has appeal mechanisms in place which appear to be operating effectively. Whilst all of the countries examined in the study provide options for progressing appeals through the court system, the mechanisms of interest in this context are those that operate at the administrative level. In this regard, HKC&ED appears to consistently provide the international trading community with the opportunity to appeal administrative decisions by reference to a nominated customs official, and there is no evidence to suggest that HKC&ED's ability to provide such mechanisms is influenced by any situational factors.

As noted by Bardach and Kagan (1982b), regulatory regimes may appear oppressive, not because the laws themselves are in some way flawed, but because of the way in which they are administered. Similarly, Sparrow(2000) contends that the way in which a law is implemented and administered can have a significant impact on its effectiveness, and Shaver (1999) suggests that one of the most damaging factors that impacts on effective customs administration is the existence of official corruption. In this regard, it is considered that HKC&ED is virtually corruption-free and that issues of customs officer integrity are therefore unlikely to impact on the international trading activities of the country. This may be due to the fact that Hong Kong civil servants enjoy a significantly higher level of remuneration than their regional counterparts, thereby reducing the incentive for bribery and similar corrupt practices. As such, the absence or minimalist nature of corrupt customs practices in Hong Kong impacts positively on the way in which HKC&ED is able achieve a risk-managed style of compliance management.

Equally, for some countries this is not the case, and customs authorities throughout the world are vulnerable to corrupt practices that may result in considerable disruption and a damaging lack of certainty for the international trading community (e.g. Shaver, 1999). As such, the level, form and degree of acceptance of official corruption within such countries may be regarded as a key element that may impact negatively on an administration's ability to effectively implement a risk-based style of compliance management.

INFORMATION TECHNOLOGY FRAMEWORK

The conceptual model identifies three enablers to the achievement of a risk-managed style of compliance management. These include legislative provisions that provide the trading community with electronic as well as paper-based reporting, storage and authentication options (such provisions should enable regulators to rely on commercially-generated data to the greatest extent possible); appropriate communications and information technology infrastructure to provide for automated processing and clearance arrangements (regulators should seek to achieve maximum integration with commercial systems); and consultative business process reengineering prior to progressing any automation (see Table 4.1). In identifying these elements as 'enablers', the conceptual model does not suggest that the absence of such elements, but rather that its achievement is likely to be impeded in the absence of such enablers (refer chapter 4).

The United States Customs Service (USC) has indicated that the principal tool (i.e. enabler) that has assisted its efforts to minimise regulatory intervention in commercial trade transactions has been the introduction and expansion of its automated systems. These systems have enabled USC to electronically receive and screen import data for approximately 98 per cent of sea containers prior to their arrival in the U.S., in order to assess the need for physical intervention, which in turn has enabled USC to release the vast majority of imported sea containers without physical inspection (see U.S. Customs Service, 2002a). Due to the importance that the USC has placed on an effective information technology framework to further refine and improve its compliance management strategies, it is currently developing a more sophisticated system that will provide the necessary mechanisms to speed up and refine the process

of assessing transactional data and hence clearing and releasing shipments that are deemed to represent a relatively low risk.

Similarly, the Australian Customs Service (ACS) is currently in the process of developing a single electronic communication and processing system to replace its existing systems, which should allow the ACS to place a greater reliance on trader self-assessment, particularly for low value goods, such as those imported and exported by air express carriers (see Australian Customs Service, 2002b). This is something which could not be achieved in the absence of automated processing systems, due to the high volume of packages and documents being traded. However, with the support of an appropriate information technology framework, the ACS is developing an increased capability to effectively undertake a range of risk-based compliance assessment procedures, including a post-transaction focus in the majority of cases, pre-arrival assessment, clearance and release. It is the ACS intention that all international cargo will ultimately be reported electronically to customs prior to its arrival in Australia, thereby allowing the ACS to undertake pre-arrival processing and to advise commercial operators of the 'customs status' of the goods prior to or at the time of cargo arrival.

Unlike its counterparts in Australia and the United States, the South African Revenue Service (SARS) has until very recently (pre-2002) been relying heavily on manual methods and procedures to process and clear international cargo, and consequently its electronic communication and processing environment is still very much in its infancy. However, the automation of customs processes represents a key element of the organisation's modernisation program, and SARS has embarked on a very ambitious development and implementation program that, if fully achieved, will see most customs processes automated by 2004.

Hong Kong is also progressing rapidly towards the implementation of effective information technology and communication systems, in an effort to improve the effectiveness and efficiency of both customs control and trade facilitation. The Air Cargo Clearance System is currently the only electronic cargo processing system being operated by HKC&ED, with two other systems in the pipeline. A new system for air, sea, river and rail cargo is already partially developed, and at a stage where it can receive electronic manifests, while the proposed automated system for road cargo

is still at a very early stage of development. Most sectors of the international trading community in Hong Kong are already well advanced in their application of information technology solutions, and in many respects the Government is playing catch-up in an effort to provide the trading community with the level of service that it requires in order to effectively compete in the global marketplace. As noted by the Information Infrastructure Advisory Committee:

with the large volume of cargo moving into and out of Hong Kong each day, a customs clearance system hidebound by conventional paper-based cargo clearance procedures could hardly cope with the needs of the trading community. The introduction of a modernised customs clearance system is the ultimate solution to meet the demand for speedy cargo clearance (Information Infrastructure Advisory Committee, 2001, pp. 1, 2).

To this end, HKC&ED is in the process of replacing its largely paper-based cargo clearance procedures with automated systems, the development of which indicates that HKC&ED recognises the need for an effective information technology framework that provides automated processing and clearance arrangements as an enabler to achieving a more effective and efficient means of managing regulatory compliance.

The process of implementing the new systems has, however, been significantly impeded by concerns raised by certain sectors of the industry, particularly those who are not particularly well positioned to adopt the new arrangements. For example, the Hong Kong Government has encountered significant difficulties in gaining the support of the river trading community, among others, who have expressed their concerns about several aspects of the proposed system, including cost and their perceived inability to provide the relevant data in the form required by government departments. A key reason for the apparent lack of support for the Electronic Manifest System (EMAN) at this late stage of its development appears to be the paucity of public consultation that occurred during the course of the feasibility study, and the failure to properly re-engineer the underlying business processes prior to automation. In contrast, the proposed Road Manifest System (ROMAN) appears to enjoy a relatively high level of industry support, due to the degree of business process re-engineering that has gone into its development, together with the extensive public

consultation that accompanied the feasibility study which recommended its introduction.

The difficulties that have been encountered by the Hong Kong Government point to a number of factors that have the potential to impact on the introduction of an information technology framework that is designed to support the achievement of a risk-managed style of compliance management. These include the IT maturity/technological capability of the various sectors of the international trading community (as well as the capability of relevant government agencies, including customs). Similarly, the demonstrated ease with which HKC&ED has been able to introduce effective information technology and communication systems into the air cargo industry is considered to have been influenced by the high level of IT maturity and technological capability within the air cargo industry, including the level of sophistication of its supply chains, particularly the associated digital trade and transportation (e-commerce) networks. In addition, it is considered that the achievements to date have also been influenced by the overall capability, reliability and accessibility of Hong Kong's information technology and telecommunications network.

One further issue that impacts on Hong Kong's ability to implement the necessary technological solutions to enhance its capacity to effectively process cargo data, which is not a feature of the international examples, is the requirement to provide facilities to process cargo manifests that are prepared in either English or Chinese. This is then further complicated by the need to provide facilities to cater for both traditional Chinese characters and simplified Chinese characters.

RISK MANAGEMENT FRAMEWORK

The conceptual model identifies six elements of an administration's risk management framework that are considered to characterise a risk-managed style of compliance management. These include a focus on high-risk areas, with minimal intervention in low risk areas; a focus on identifying both compliance and non-compliance; rewards for recognised compliers; an information management focus as opposed to a physical control focus; a breaking of the traditional nexus between physical control over goods and revenue liability; and the availability of pre-arrival import clearance (see Table 4.1).

The first of these, i.e. a focus on high-risk areas, with minimal intervention in low risk areas; a focus on identifying both compliance and non-compliance; and rewards for recognised compliers, are all prominent in the compliance styles exhibited by the international customs examples. For example, the USC approach to compliance management that has emerged as a result of its extensive reform program is specifically intended to provide the USC with the ability to focus its resources on areas of high risk, with minimal intervention in low risk areas, combined with incentives for recognised compliers (e.g. less onerous reporting requirements). In order to achieve this, however, it is firstly necessary to identify both low-risk and high-risk traders and/or transactions. The USC achieves this in one of a number of ways, including post-transaction assessment of compliance for particular traders, or 'accounts', analysis of those industries that are considered to be of particular strategic importance (e.g. those which are associated with specific international trade agreements), analysing levels of compliance relating to particular trading issues (e.g. quota evasion), and undertaking assessments of those transactions which would otherwise be considered to represent a low risk.

While the last identified strategy may initially appear to be inconsistent with a riskmanaged style of compliance management, it is important to note that the conceptual model refers to *minimal intervention* in low risk areas, which does not imply *no intervention* in such areas. This is because the concept of 'low risk' does not imply the total absence of risk, and consequently there is always the possibility of some form of risk existing, which cannot be ignored (refer chapter 4). Furthermore, it is important to recognise the fact that the risk management cycle is by its very nature iterative, and that the ongoing requirement to monitor and review is an essential ingredient of effective risk management, in order to determine whether the current assessment of risk is still valid, and whether the chosen risk treatments are having the desired effect.

As is the case with the USC, the ACS is progressing a compliance management strategy which not only seeks to identify non-compliance in order to direct its enforcement efforts towards such transactions, but also seeks to identify those traders who are complying with the law, with a view to actively facilitating their transactions and providing them with a range of additional benefits, such as an increased ability to self-assess. Such active identification of compliance differs markedly from an approach that facilitates transactions (through non-intervention) by default, since the latter form of 'facilitation' merely results from the fact that the consignment in question is not amongst those transactions that have been selected for customs inspection. Such non-intervention, which is more representative of a 'gatekeeper' regime, often results from a shortfall in enforcement resources, which is to be expected given the escalating numbers of international trade transactions that customs authorities are required to manage.

Whilst not as advanced as the risk management strategies of the USC and ACS, the SARS Accredited Client Scheme also provides facilitated clearance arrangements and other benefits to those traders who are able to demonstrate high levels of customs compliance and as a consequence are deemed to be low-risk. Ongoing compliance assessment of such traders is based on post-transaction audits, thereby minimising the level of intervention by SARS at the time of importation or exportation. Real-time customs intervention, on the other hand, is generally reserved for those traders who have not been assessed as low risk and are hence excluded from the Accredited Client Scheme.

A common element of these examples is the fact that the relevant administration must rely heavily on its enabling information technology in order to effectively analyse the high volumes of data that are received, and to compare such data with profiles that are designed to facilitate the process of identifying both high and low risk consignments. Indeed, it is considered that an administration's capability to effectively adopt the type of strategy being pursued by the U.S., Australia and South Africa is heavily dependent upon the availability of an appropriate information technology framework, and to attempt to introduce such a strategy in the absence of such enabling technology would be futile.

Whilst the literature clearly supports a strategy of focussing resources on high-risk transactions, there is little commentary relating to the identification of both compliance and non-compliance, with most commentators concentrating on the issues relating to the identification of potentially high-risk transactions in order to address
identified risks and, as a consequence, facilitate the remainder. In this regard, Sparrow (1994) contends that, in recognition of their inability to achieve complete coverage, regulatory agencies are increasingly acknowledging the need to focus on high priority problems and to direct their enforcement actions towards carefully selected targets. Similarly, Banks (1999) argues that the use of risk management enables customs to efficiently screen the high numbers of international trade transactions, identify those which present the highest risk in terms of potential non-compliance and prioritise resources to address the high-risk shipments (i.e. make intelligent interventions). In so doing, the vast majority of shipments that are considered to represent a low risk are facilitated through the customs clearance process. However, as noted above, this approach results in a situation whereby non-selected transactions are merely facilitated by default, and as such represents a 'passive' form of facilitation, as opposed to the 'active' facilitation envisaged by the conceptual framework (refer Figure 4.7).

The need for an active approach to identifying and facilitating low-risk traders is supported by the Australian Customs Service (1997) through the introduction of its industry partnership concept, which is based on the premise that companies with a good record of compliance require less regulatory scrutiny than those with a history of poor compliance. This strategy seeks to provide highly compliant companies with more latitude to self-assess their revenue liability, by relying primarily on their internal accounting systems and procedures. Importantly, in identifying such low-risk companies, the strategy seeks to actively facilitate their consignments at the time of importation, thereby providing such traders with unimpeded access to their goods upon their arrival. This approach is further supported by Widdowson (1998), in his discussion of the need to strike an appropriate balance between incentives for compliance and sanctions for non-compliance, in which he contends that minimal intervention at the time of importation represents an important element in the available suite of incentives for compliant traders.

An examination of the risk management framework that is currently in operation in Hong Kong highlights a tendency for HKC&ED to direct its efforts towards the identification of non-compliance, at the general expense of initiatives designed to identify compliant companies, even in the highly automated air cargo environment. Under such a regime, there is little scope to actively facilitate those traders and service providers that can demonstrate a high level of compliance, and consignments are therefore generally 'facilitated' by default, i.e. because they have not been specifically selected for further customs action. As noted in chapter 9, however, HKC&ED is currently seeking to redress this situation by improving its research and analysis capabilities and directing those capabilities to the identification of both compliance and non-compliance, the former being achieved under the 'trader risk assessment' initiative. It is unlikely, however, that HKC&ED will be able to make much progress in this regard, pending implementation of its proposed automated cargo manifest processing systems. However, it is important to note that, with the introduction of electronic receipt, analysis and processing of all modes of cargo (as is proposed for under the new automated arrangements), HKC&ED will have the capacity to compare high volumes of cargo data against any number of risk profiles in a matter of seconds, and in doing so, introduce a degree of accuracy, objectivity and consistency that is impossible to achieve under a manual system.

As noted earlier in this chapter, a further inhibitor to HKC&ED's capacity to identify compliant importers is considered to be its inability to access trade declaration information prior to clearing cargo, with this situation being seen as a legacy of the country's 'free trade' status. For those companies who trade in dutiable commodities, however, for which dutiable goods permits are required prior to customs clearance, HKC&ED is already undertaking risk-based compliance assessments, and its intervention decisions are based on the outcome of such assessments. It is therefore considered that HKC&ED is currently limited in its ability to identify compliant traders, and to actively facilitate such traders through a strategy of 'intervention by exception', as a direct result of the broader regulatory framework governing particular industry sectors, in this case a requirement by the Census and Statistics Department that traders are not required to submit trade declarations until 14 days after the goods have been imported or exported. Furthermore, the fact that this situation is unlikely to change in the near future is a reflection of the private sector's views and expectations about acceptable levels of government facilitation and the regulatory burden.

The examination, in chapter 5, of the various international initiatives also serves to indicate that customs authorities are in the process of moving from a physical control environment to an information management environment. In this regard, the conceptual model identifies two further elements of an administration's risk

management framework that are considered to characterise a risk-managed style of compliance management to be an information management focus as opposed to a physical control focus, and a breaking of the nexus between physical control and revenue liability, the former being a prerequisite for the latter.

The USC Trade Compliance Risk Management process (U.S. Customs Service, 1999) has as its initial step a requirement to collect data and information, and through the use of its automated processing systems, the USC determines the customs treatment of consignments based on the information received from carriers and traders, and the degree to which such information matches risk criteria. Similar arrangements exist in Australia, where its dual approach of identifying both low-risk and high-risk consignments is achieved by electronically screening all transaction data against predetermined profiles. Whilst SARS is currently unable to manage cargo information to the same extent as the USC and ACS, it is making rapid progress in this area, and as noted in chapter 5, in a number of instances SARS has been successful in managing information to the point where it is able to break the nexus between physical control over the goods and revenue liability.

As is the case with other elements of a risk-managed style of compliance management, successful transition from a physical control regime to an information management regime is heavily dependent upon the availability and effectiveness of an enabling information technology framework. As noted by Shaver (1998), information underpins the customs philosophies of risk management and strategic assessment, and it is considered that it is not possible to move from a strategy of physical control to one of information management in the absence of an effective information management framework.

HKC&ED does not currently have access to such a framework, with the exception of the systems that have been developed to receive, analyse and process information relating to air cargo and dutiable commodities. Consequently, it is to be expected that HKC&ED's compliance management regimes are heavily biased towards physical control, apart from its compliance activities within the air cargo industry and those relating to licensed premises, as a direct result of the current unavailability of effective automated systems outside of these two specific areas of responsibility. It is therefore apparent that HKC&ED's transition from a physical control regime towards one that is based on information management is reliant upon full implementation of the electronic manifest systems that are currently being developed. In this regard, it is pertinent to note that, in respect of its compliance management activities associated with licensed premises, HKC&ED has not only been successful in adopting an information management approach, but in doing so, has also been successful in enforcing revenue liability matters through the use of information management systems, as opposed to its traditional physical control approach under the closed bond arrangements.

The final element of an administration's risk management framework which characterises a risk-managed style of compliance management is the availability of pre-arrival import clearance arrangements (see Table 4.1). An examination of the various international models serves to identify implementation of effective information technology systems as a prerequisite to the introduction of such pre-arrival clearance arrangements. The USC and ACS are already able to provide pre-arrival clearance, based on their sophisticated cargo clearance systems, although for security reasons, the customs clearance status of cargo is often withheld pending arrival of the cargo. SARS, on the other hand, is planning to introduce such measures for all modes of transportation, but its phased implementation is required to follow the roll-out of its automated systems into the various industry sectors.

Similarly, HKC&ED is currently capable of providing pre-arrival clearance advices for air cargo, based on the functionality of its Air Cargo Clearance System. In other modes, however, the facility will be unavailable pending full implementation of the proposed new automated processing systems. Furthermore, even when such systems are in place, pre-arrival clearance will be dependent upon the willingness of the international trading community to provide customs with the relevant information prior to arrival of the cargo, since the proposed legislative provisions that accompany the new systems only require the information to be submitted prior to or at the time of arrival. More importantly, however, pre-arrival clearance will be dependent upon the ability of carriers to provide customs with the relevant information prior to arrival of the cargo. In this regard, it is possible that the smaller river traders in particular may experience difficulties in transmitting data to customs in a suitable format. A further influencing factor is the available lead-times for the provision of such information. For example, sea cargo information may be available several weeks prior to its arrival in a country, whereas road cargo data may only be available several minutes prior to the arrival of the vehicle at the land boundary control point. Similarly, the disparate commercial standards (e.g. requisite level of documentation, data timeliness and accuracy, etc.) that apply both among and within industry sectors are likely to impact on this and other information technology-related initiatives.

FACILITATION AND CONTROL

A key element of a customs authority's administrative framework that is considered to characterise a risk-managed style of compliance management is the achievement of an appropriate balance between regulatory control and trade facilitation. This particular element is considered to be a hallmark of the conceptual model's risk-based style, and one which is essentially a manifestation of all other elements of the model.

Whilst a balanced approach to facilitation and control is considered to be a characteristic feature of the three international compliance management regimes examined in chapter 5, the way in which this is achieved varies. In all cases, however, the relevant customs authorities seek to facilitate the movement of cargo at the time of arrival and/or departure to the greatest extent possible, even in situations where the goods in question may not be low-risk. Post-transaction checks are generally pursued in situations where the nature of the risk is such that it is not essential to treat the risk at the time the transaction takes place, with the vast majority of real-time interventions being reserved for those high-risk goods that pose an immediate threat to compliance. In the case of Australia and the U.S. in particular, the customs authority will generally pursue a strategy of post-transaction audit, thereby allowing the goods to be delivered unimpeded at the time of importation, with any revenue deficiencies being rectified at a later date. However, where a consignment is suspected of containing drugs, weapons or pests and diseases, customs intervention would occur at the time of importation. In this way, the movement of all low-risk cargo and the vast majority of other cargo will be facilitated, with intervention reserved for particular classes of risk.

In South Africa, on the other hand, any suspected revenue risks are generally addressed on a real-time basis, mainly due to the fact that information management systems are not yet capable of effectively addressing revenue and similar risks on a post-transaction basis. The SARS compliance management program does, however, seek to provide increased levels of trade facilitation to those members of the international trading community who are capable of demonstrating high levels of compliance, and who form part of the Accredited Client Scheme, with real-time physical checks and documentary examinations generally being reserved for non-accredited traders. Due to the nature of the accreditation arrangements, such facilitation is made possible regardless of the mode of carriage of the cargo.

Figure 10.1: International Facilitation/Control Matrix



The relative position of each of the three countries on the Facilitation/Control Matrix is shown in Figure 10.1. In all cases, the countries are pursuing an ongoing progression towards the upper right hand quadrant which represents a 'balanced approach' of high regulatory control and high trade facilitation, due to the initiatives that are currently being progressed in relation to their respective enabling information technology systems. South Africa, in particular, is likely to make considerable progress towards the achievement of a 'balanced approach' by 2004, as a result of the ambitious rollout program of its electronic systems.

Mapping the results to the Compliance Management Matrix that was introduced in chapter 4 (refer Figure 4.5) provides an indication of the degree to which the principles of risk management have been adopted by the three customs authorities in their approach to regulatory compliance management. In all cases, a relatively high use of risk management is apparent. The refinement and development of the authorities' information technology solutions will enable their further application of a risk-managed style of compliance management, and in doing so, facilitate progression towards the conceptual model's 'balanced approach'.

Figure 10.2: International Compliance Management Matrix



The study's examination of the compliance management style of the three international examples is strategic, in that it does not attempt to differentiate between the particular practices and procedures applying to individual modes of cargo transportation. Despite this, the examination has identified that the basic principles of compliance management appear to remain relatively constant across the various modes of transport for all three countries. The study's examination of the case study, however, progresses beyond a strategic view of Hong Kong's compliance management style, revealing that the manner in which HKC&ED seeks to balance trade facilitation and regulatory control is contingent upon the particular mode of

conveyance. For example, air, road and rail cargo must be customs cleared prior to delivery, while sea and river cargo may be delivered as soon as it arrives, provided that it is not detained by customs, which is currently on an exception basis, although this will soon change with the introduction of Hong Kong's new legislation and clearance systems.

For sea and river cargo, in particular, the present administrative framework is considered to lack balance between regulatory control and trade facilitation, primarily because the vast majority of consignments are facilitated by default (i.e. non-selection for customs inspection), with little evidence of effective control. In terms of the Facilitation/Control Matrix, which is discussed in chapter 4 (refer Figures 4.4 and 4.5), sea and river cargo customs clearance arrangements in Hong Kong are considered to fall into the 'laissez fair' (low control/high facilitation) quadrant, as depicted in the Hong Kong Facilitation/Control Matrix (see Figure 10.3). This has essentially resulted from the traditional expectation that trade will be allowed to flow freely into the 'free port' of Hong Kong, unless there is a specific reason for customs intervention.

With the increasing need to control the broad range of 'prohibited goods', customs intervention is becoming more regular in some sectors and routine in others. As such, key factors which influence the ability of HKC&ED to achieve an appropriate balance between facilitation and control include the various commercial operators' expectations and views about what constitutes an acceptable level of customs intervention. In this regard, it is considered that Hong Kong's 'free port' legacy is a principal reason why HKC&ED is having difficulty introducing its extensive reform program, which seeks to redress the current imbalance through the introduction of the electronic manifest (EMAN) system, as discussed in chapter 8, as well as the extensive legislative and associated administrative and risk management reforms that are examined in chapters 6,7 and 9. In particular, the proposed requirement for sea and river cargo manifest information to be provided to HKC&ED prior to customs clearance is considered to represent a critical element of the reform program. Should such sweeping reforms be introduced without the support of effective enabling technology, the end result would be likely to be a shift towards the 'red tape' quadrant of high control/low facilitation. However, assuming that the automated processing system is introduced as proposed, it is considered that HKC&ED will realise an effective transition from the present customs clearance arrangements towards the high control/high facilitation ('balanced approach') of the Facilitation/Control Matrix.



Figure 10.3: Hong Kong Facilitation/Control Matrix

In some areas of HKC&ED's operations, the scales appear to have tipped the other way, with high levels of customs intervention being imposed to the apparent detriment of trade facilitation. An example of this is the strategy of imposing particularly high levels of physical intervention at the land boundary control points as a means of verifying compliance with the country's textiles regulations. For example, at Lok Ma Chau, the largest of the three land boundary control points, examinations of textiles accounts for more than 50 per cent of all cargo selections. The reason for Hong Kong's rigorous enforcement of the textiles regulations is due to the high political importance of achieving high levels of compliance, and being seen to do so. In this regard, it is understood that the United States, in particular, has expectations that a rigorous inspection regime will be undertaken in order to ensure compliance with the relevant rules of origin and quota arrangements. This highlights a further factor that is influencing HKC&ED's adoption of a risk-managed style in particular circumstances, i.e. the need to meet the expectations of its international trading partners.

Despite the high levels of physical intervention at the land boundary, the absence of an effective information technology framework appears to significantly inhibit HKC&ED's ability to effectively analyse road cargo information, due to the manual nature of documentary checks and the limited timeframe in which such analysis can take place. Consequently, the customs clearance arrangements for road cargo are considered to provide a relatively low overall level of both control and facilitation, as depicted in the Hong Kong Facilitation/Control Matrix at Figure 10.3. However, with the introduction of the road manifest (ROMAN) system, the situation is expected to change dramatically, since road cargo data will be received prior to arrival at the land boundary control points, with extensive automated analyses being performed on the data, including cross-checks against the customs intelligence data holdings, with the explicit purpose of facilitating low-risk cargo and intercepting high-risk cargo, thereby resulting in a practice of 'intervention by exception'. As such, it is considered that future road cargo clearance arrangements will successfully shift into the high control/high facilitation ('balanced approach') quadrant of the Facilitation/Control Matrix.

Similarly, the level of customs control for rail cargo is likely to increase with the introduction of the EMAN system. As is the case with road cargo, whilst rail cargo data is currently required to be submitted prior to customs clearance, the manual nature of the checking and analysis activities significantly impedes HKC&ED's ability to effectively identify potentially high- and low-risk consignments. Consequently, whilst rail cargo enjoys a relatively high degree of facilitation, the level of customs control is less than optimal, as depicted in Figure 10.3. Once such processes are fully automated, and providing that HKC&ED implements the associated risk management reforms discussed in chapter 9, it is considered that rail cargo clearance arrangements will ultimately reflect the high control/high facilitation 'balanced approach' of compliance management.

Air cargo clearance is already operating in a highly controlled, automated environment, which is intended to be further streamlined with the introduction of the new (EMAN) system. Whilst such arrangements are already considered to generally sit within the high control/high facilitation ('balanced approach') quadrant of the Facilitation/Control Matrix (refer Figure 10.3), there is an opportunity to increase the level of control, in particular, through more sophisticated profiling and targeting techniques, as discussed in the previous chapter. Provided that the new clearance arrangements incorporate improved profiling arrangements, and do not impose additional reporting requirements (as discussed in chapter 8), it is considered that improved levels of control may be achieved.

A further issue exists in relation to air cargo, particularly those consignments that are carried by the air express industry, such as DHL, FedEx, UPS and TNT. Air express consignments are generally regarded as time-sensitive by the consignor, consignee and the carrier, and may include such items as urgent commercial documents, perishable goods and inputs to manufacture. There is a high expectation by the industry that such consignments will be cleared by customs within minutes of their arrival, due to the time-sensitive nature of the goods, and consequently the customs processing arrangements for such goods, including those associated with the Air Cargo Clearance System, generally reflect the need for priority clearance. However, where no automated cargo system is available to facilitate the clearance of express consignments, such as those that arrive from Southern China as road cargo via the land boundary, the effectiveness of both regulatory control and trade facilitation is considered to be significantly diminished, with a particular impact on trade facilitation.

As noted in previous chapters, HKC&ED's approach to compliance management for warehoused cargo is in the process of changing dramatically, as it is currently undergoing a transition from a 'closed bond' to an 'open bond' regime, which contains many of the characteristic features of a risk-managed style of compliance management. As such, it is considered that compliance management of the majority of licensed premises is already representative of a high control/high facilitation approach, as depicted in Figure 10.3, and that once the scheduled reform program is finalised, HKC&ED's approach to the compliance management of all warehoused cargo will fall within this quadrant of the Facilitation/Control Matrix.

Multi-modal cargo is not identified on the Hong Kong Facilitation/Control Matrix (Figure 10.3), since the various combinations of multi-modal cargo vary significantly in respect to the level of control and facilitation, in line with the individual modes of transportation. For example, a multi-modal transhipment involving carriage of goods by road and sea could potentially encompass all quadrants of the Facilitation/Control

Matrix, at various stages of the transhipment process. As compliance management of the various cargo modes shifts towards the high control/high facilitation quadrant, so will the compliance management of multi-modal cargo. However, it is pertinent to note that, since Hong Kong currently treats multi-modal transhipments as two separate transactions (i.e. an import and export), such cargo movements receive a lower level of facilitation due to the increased regulatory burden associated with the two separate clearance arrangements Consequently, multi-modal cargo will continue to receive an overall lower level of trade facilitation than imports and exports, until such time as Hong Kong recognises such movements as a single transaction.

Mapping the results to the Compliance Management Matrix that was introduced in chapter 4 (refer Figure 4.5) provides an indication of the degree to which the principles of risk management have been adopted by HKC&ED in their approach to regulatory compliance management of the various types of cargo. In all cases, a general progression towards a 'balanced approach' is evident, principally due to the proposed introduction and/or refinement of enabling information technology and an increased focus on risk management.





As a general observation, there appears to be considerable commitment at the highest levels of HKC&ED to ensure that the trading community is provided with internationally accepted levels of facilitation, as evidenced by Wong's claim that the organisation is seeking to 'meet proactively the demands in association with our dual role as an enforcement agency and a trade facilitator without compromising the integrity of our control system' by further promoting 'the use of intelligence and risk management in our operations with the back-up of extensive application of information technology' (Wong, 2002, p.1).

SUMMARY - COMPARATIVE ANALYSIS

The analysis of the various issues identified in previous chapters indicates that the principles of risk management remain relevant to the management of international trade compliance, regardless of the operational setting in which they are to be employed. The analysis further indicates that, while such principles hold true across all operational areas, their effectiveness in managing compliance is dependent upon the particular operational setting in which they are applied. In this regard, factors that are considered to influence the effectiveness of risk-managed compliance strategies include:

- □ information technology factors, including the capability, reliability and accessibility of the country's information technology & telecommunications network; the level of IT maturity/technological capability of government, including customs; the level of IT maturity/technological capability of the various sectors of the international trading community; and the level of sophistication of commercial supply chains, particularly digital trade and transportation networks
- commercial imperatives and constraints, including the wide-ranging commercial lead-times for consignment data (e.g. weeks for sea cargo, as against minutes for road cargo); the time-sensitivity of certain classes of cargo, such as urgent documents, perishable goods and inputs to manufacture; the commercial availability of pre-arrival cargo data; the heterogeneity of particular industry sectors, that may comprise multinationals through to owner-operators; the disparate commercial standards that apply both among and within industry sectors, such as the requisite level of documentation, data timeliness and

accuracy, etc.; the level of organised representation within individual industry sectors, such as industry associations and unions; and the multiplicity of languages used in trade documentation

- physical factors, including the geographic features of the country; the physical infrastructure at points of importation, exportation, storage and transit; and the security of facilities at points of importation, exportation, storage and transit
- sociological, cultural and political factors, including commercial operators' views and expectations about acceptable levels of facilitation, customs intervention and the regulatory burden; the needs and expectations of trading partners; the broader regulatory framework governing particular industry sectors; and the level, form and degree of acceptance of official corruption.

Finally, HKC&ED's achievement of an appropriate balance between regulatory control and trade facilitation, which is essentially a manifestation of all other elements of the conceptual model, is heavily dependent upon the particular mode of conveyance. There is, however, a general trend towards a more balanced approach to customs compliance management for all modes, in line with HKC&ED's transition towards a more risk-managed style of compliance management.

THE STUDY

The study seeks to determine whether the effectiveness of risk management strategies used by customs authorities to control and facilitate international trade is contingent upon the operational context in which such strategies are applied, and to identify the factors that may influence the suitability of different approaches to risk management in a variety of operational settings.

Having introduced a conceptual framework to facilitate the process of analysing the way in which the principles of risk management are applied by customs authorities, the study proceeds to examine and analyse a range of international initiatives in the context of the conceptual framework, including those being progressed by the World Customs Organization and the customs administrations of the United States, Australia and South Africa. The study then proceeds to examine and analyse a multi-faceted case study which evaluates Hong Kong's risk-based compliance management strategies in a variety of operational settings, including air, sea, river, road, rail and warehouse cargo, and the various forms of multi-modal cargo.

These initiatives are examined and analysed in the context of a country's statutory framework, the administrative framework of a country's customs organisation, the technological framework of both industry and government and the type of risk management framework adopted by a country's customs organisation.

PRINCIPAL FINDINGS

The study supports the broad body of knowledge that identifies risk management as the means by which regulatory agencies may achieve an appropriate balance between facilitation and regulatory control, including the specific commentary relating to the use of risk management principles and techniques by customs authorities in their efforts to achieve such a balance between customs control and international trade facilitation. By examining the way in which customs authorities control and facilitate international trade, particularly through the application of risk-managed compliance strategies, the study has found that the principles of risk management provide customs authorities with a valid construct for compliance management, irrespective of the operational context in which they are applied.

The study has also found, however, that the effectiveness of risk-managed compliance strategies is contingent upon the particular operational setting in which they are applied. Factors that are found to influence the effectiveness of such strategies include a range of information technology issues, such as the level of IT maturity/technological capability of both government and the private sector and the level of sophistication of commercial supply chains. Other influencing factors include various commercial imperatives and constraints, including the wide-ranging commercial lead-times for consignment data, the time-sensitivity of certain classes of cargo, the commercial availability of pre-arrival cargo data and the heterogeneity of particular industry sectors.

Physical factors are also found to influence the effectiveness of risk-managed compliance strategies, including the geographic features of the country; the physical infrastructure at points of importation, exportation, storage and transit; and the security of facilities at points of importation, exportation, storage and transit. Finally, the study identifies a number of sociological, cultural and political factors that influence the effectiveness of such strategies, including public views and expectations about acceptable levels of facilitation and customs intervention, the broader regulatory framework governing particular industry sectors and the level, form and degree of acceptance of official corruption.

CONTRIBUTIONS OF THE WORK

The study furthers the constructs of risk management theory by way of its empirical application in the context of regulatory compliance management, and its more specific application to customs compliance management in the international trade environment.

In addition, the study serves to advance the body of knowledge of risk management theory through its introduction of a contingency perspective, which is evinced by reference to a variety of operational settings.

In examining the literature's general conclusion that risk management represents the means by which regulatory agencies may achieve an appropriate balance between facilitation and regulatory control, the study introduces a conceptual model that comprises a Risk-based Compliance Management Pyramid and a Compliance Management Matrix.

The Risk-based Compliance Management Pyramid (refer Figure 4.7) advances the concept of Ayres & Braithwaite's (1992) Enforcement Pyramid by introducing compliance management initiatives other than enforcement strategies. In this way, it provides a conceptual framework to demonstrate the way in which the types of risk management strategies identified in the literature, including non-enforcement strategies, may be used to manage compliance, and in so doing, provides a sound basis on which to assess a customs authority's style of compliance management. The diverse range of compliance management strategies is summarised in Table 4.1, which compares key elements of a risk-managed style of compliance management (e.g. Sparrow, 2000) with the more traditional 'gatekeeper' style (e.g. Hayes, 1993).

The three-dimensional Compliance Management Matrix provides a conceptualisation of the emphatic interrelationship between facilitation, regulatory control and risk management. Whilst the literature implies such a relationship, no conceptual model has hitherto been developed. In this regard, whilst the study does not specifically set out to validate the theoretical framework depicted in Figure 4.5, the framework proves useful in providing a conceptualisation of the interrelationship between facilitation, regulatory control and risk management, which permeates the literature, and provides a practical construct against which the international trends and findings of the case study may be analysed.

DIRECTIONS FOR FURTHER RESEARCH

The active identification of compliance, which represents a key element of the conceptual model's risk-based style of compliance management, differs significantly from the situation in which transactions are essentially facilitated (through non-

intervention) by default, due to the fact that the relevant consignments are not amongst those that have been specifically selected for customs inspection. Such an approach represents a 'passive' form of facilitation, as opposed to the 'active' form of facilitation envisaged by the conceptual framework. In this regard, it is considered that active identification of compliant transactions and traders is a prerequisite to the provision of strategies that are designed to reward compliance, including the very basic 'reward' of intervention by exception at the time of importation. Whilst the literature consistently supports a strategy of focussing resources on potentially highrisk transactions, the concept of active facilitation has received very little attention. Further research into this aspect of compliance management would contribute to an understanding of the relative benefits of active facilitation as against passive facilitation, and hence the relative importance of directing resources towards the identification of compliance as opposed to non-compliance.

The study has introduced a conceptual framework that compares key elements of a risk-managed style of compliance management with the more traditional 'gatekeeper' style. However, the complexity of the subject has not permitted a detailed examination of logical pathways to achieve a successful transition from an authority's current style of compliance management to one which exhibits the essential characteristics of a risk-managed style. An examination of case studies in which such a transition has been or is being made would serve to identify effective pathways to the achievement of a risk-managed style of compliance management, together with effective change management strategies for implementing the required reforms. Such research could include an examination of the extent to which the logical pathways are contingent upon the initial characteristics of the 'gateway' style regime.

Finally, while it is considered that the findings of the study have wider application than the use of risk management by customs authorities in the international trading environment, similar research into other areas of regulatory compliance would serve to verify this contention. Relevant areas in which such research may be conducted include those in which Sparrow (2000) has already examined a number of case studies, including justice, policing, occupational health and safety, immigration, transport and environmental protection.

APPENDICES

Appendix 1:	Members of the	World Customs	Organization
-------------	----------------	---------------	--------------

- Appendix 2: Interviews Conducted
- Appendix 3: Revised Kyoto Convention General Annex Summary of Provisions
- Appendix 4: Overview of Hong Kong's Import and Export Licensing Provisions

APPENDIX 1

MEMBERS OF THE WORLD CUSTOMS ORGANIZATION

As at 1 December 2002

Albania	Georgia	Niger
Algeria	Germany	Nigeria
Andorra	Ghana	Norway
Angola	Greece	Oman
Argentina	Guatemala	Pakistan
Armenia	Guinea	Panama
Australia	Guyana	Papua New Guinea
Austria	Haiti	Paraguay
Azerbaijan	Hong Kong, China	Peru
Bahamas	Hungary	Philippines
Bahrain	Iceland	Poland
Bangladesh	India	Portugal
Barbados	Indonesia	Qatar
Belarus	Iran (Islamic Rep. of)	Romania
Belgium	Iraq	Russian Federation
Benin	Ireland	Rwanda
Bermuda	Israel	Samoa
Bhutan	Italy	Saudi Arabia
Bolivia	Jamaica	Senegal
Botswana	Japan	Seychelles
Brazil	Jordan	Sierra Leone
Brunei Darussalam	Kazakhstan	Singapore
Bulgaria	Kenya	Slovakia
Burkina Faso	Korea (Rep. of)	Slovenia
Burundi	Kuwait	South Africa
Cambodia	Kyrgyzstan	Spain

(World Customs Organization, 2002f)

Cameroon	Latvia	Sri Lanka
Canada	Lebanon	Sudan
Cape Verde	Lesotho	Swaziland
Central African Republic	Liberia	Sweden
Chile	Libyan Arab Jamahiriya	Switzerland
China	Lithuania	Syrian Arab Republic
Colombia	Luxembourg	Tajikistan
Comoros	Macau, China	Tanzania
Congo (Rep. of the)	Madagascar	Thailand
Costa Rica	Malawi	The Former Yugoslav
Côte d'Ivoire	Malaysia	Rep. Macedonia
Croatia	Maldives	Togo
Cuba	Mali	Trinidad and Tobago
Cyprus	Malta	Tunisia
Czech Republic	Mauritania	Turkey
Democratic Rep. of the Congo	Mauritius	Turkmenistan
Denmark	Mexico	Uganda
Ecuador	Moldova	Ukraine
Egypt	Mongolia	United Arab Emirates
Eritrea	Morocco	United Kingdom
Estonia	Mozambique	United States
Ethiopia	Myanmar	Uruguay
Federal Rep. of Yugoslavia	Namibia	Uzbekistan
Fiji	Nepal	Venezuela
Finland	Netherlands	Vietnam
France	Netherlands Antilles	Yemen
Gabon	New Zealand	Zambia
Gambia	Nicaragua	Zimbabwe

APPENDIX 2

INTERVIEWS CONDUCTED

Country	Customs	Trader	Other	Total
Australia	11		2	13
Bangladesh	1	3		4
Belgium	1			1
Canada	1			1
China	11			11
Fiji	2			2
Hong Kong	15	4	6	25
India	3	4		7
Indonesia	1	1		2
Philippines	2	2		4
Singapore		4	1	5
South Africa	10		1	11
Sri Lanka	1	4		5
Thailand	9	2		11
UK		1		1
USA	2	1		3
Vietnam		2		2
Total	70	28	10	108

APPENDIX 3

REVISED KYOTO CONVENTION

GENERAL ANNEX – SUMMARY OF PROVISIONS

Note: This is an unofficial summary of the Convention that has been compiled by the author. The full official text may be obtained from the World Customs Organization.

1.1	Standard	The Definitions, Standards and Transitional Standards in this Annex shall
		apply to Customs procedures and practices specified in this Annex and,
		insofar as applicable, to procedures and practices in the Specific Annexes.
1.2	Standard	The conditions to be fulfilled and Customs formalities to be accomplished for
		procedures and practices in this Annex and in the Specific Annexes shall be
		specified in national legislation and shall be as simple as possible.
1.3	Standard	specified in national legislation and shall be as simple as possible.The Customs shall institute and maintain formal consultative relationships
1.3	Standard	The Customs shall institute and maintain formal consultative relationships with the trade to increase co-operation and facilitate participation in
1.3	Standard	The Customs shall institute and maintain formal consultative relationships with the trade to increase co-operation and facilitate participation in establishing the most effective methods of working commensurate with

CHAPTER 1 GENERAL PRINCIPLES

CHAPTER 2 DEFINITIONS

For the purposes of the Annexes to this Convention:

E1	Definition	'appeal' means the act by which a person who is directly affected by a
		decision or omission of the Customs and who considers himself to be
		aggrieved thereby seeks redress before a competent authority
E2	Definition	'assessment of duties and taxes' means the determination of the amount of duties and taxes payable;

E3	Definition	'audit-based control' means measures by which the Customs satisfy themselves as to the accuracy and authenticity of declarations through the examination of the relevant books, records, business systems and commercial data held by persons concerned;
E4	Definition	'checking the Goods declaration' means the action taken by the Customs to satisfy themselves that the Goods declaration is correctly made out and that the supporting documents required fulfil the prescribed conditions;
E5	Definition	'clearance' means the accomplishment of the Customs formalities necessary to allow goods to enter home use, to be exported or to be placed under another Customs procedure;
E6	Definition	'Customs' means the Government Service which is responsible for the administration of Customs law and the collection of duties and taxes and which also has the responsibility for the application of other laws and regulations relating to the importation, exportation, movement or storage of goods;
E7	Definition	'Customs control' means measures applied by the Customs to ensure compliance with Customs law;
E8	Definition	'Customs duties' means the duties laid down in the Customs tariff to which goods are liable on entering or leaving the Customs territory;
Е9	Definition	'Customs formalities' means all the operations which must be carried out by the persons concerned and by the Customs in order to comply with the Customs law;
E10	Definition	'Customs law' means the statutory and regulatory provisions relating to the importation, exportation, movement or storage of goods, the administration and enforcement of which are specifically charged to the Customs, and any regulations made by the Customs under their statutory powers;
E11	Definition	'Customs office' means the Customs administrative unit competent for the performance of Customs formalities, and the premises or other areas approved for that purpose by the competent authorities;
E12	Definition	'Customs territory' means the territory in which the Customs law of a Contracting Party applies;

E13	Definition	'decision' means the individual act by which the Customs decide upon a matter relating to Customs law;
E14	Definition	'declarant' means any person who makes a Goods declaration or in whose name such a declaration is made;
E15	Definition	'due date' means the date when payment of duties and taxes is due;
E16	Definition	'duties and taxes' means import duties and taxes and/or export duties and taxes;
E17	Definition	'examination of goods' means the physical inspection of goods by the Customs to satisfy themselves that the nature, origin, condition, quantity and value of the goods are in accordance with the particulars furnished in the Goods declaration;
E18	Definition	'export duties and taxes' means Customs duties and all other duties, taxes or charges which are collected on or in connection with the exportation of goods, but not including any charges which are limited in amount to the approximate cost of services rendered or collected by the Customs on behalf of another national authority;
E19	Definition	'Goods declaration' means a statement made in the manner prescribed by the Customs, by which the persons concerned indicate the Customs procedure to be applied to the goods and furnish the particulars which the Customs require for its application;
E20	Definition	'import duties and taxes' means Customs duties and all other duties, taxes or charges which are collected on or in connection with the importation of goods, but not including any charges which are limited in amount to the approximate cost of services rendered or collected by the Customs on behalf of another national authority;
E21	Definition	'mutual administrative assistance' means actions of a Customs administration on behalf of or in collaboration with another Customs administration for the proper application of Customs law and for the prevention, investigation and repression of Customs offences;
E22	Definition	'omission' means the failure to act or give a decision required of the Customs by Customs law within a reasonable time on a matter duly submitted to them;

E23	Definition	'person' means both natural and legal persons, unless the context otherwise requires;
E24	Definition	'release of goods' means the action by the Customs to permit goods undergoing clearance to be placed at the disposal of the persons concerned;
E25	Definition	'repayment' means the refund, in whole or in part, of duties and taxes paid on goods and the remission, in whole or in part, of duties and taxes where payment has not been made;
E26	Definition	'security' means that which ensures to the satisfaction of the Customs that an obligation to the Customs will be fulfilled. Security is described as 'general' when it ensures that the obligations arising from several operations will be fulfilled;
E27	Definition	'third party' means any person who deals directly with the Customs, for and on behalf of another person, relating to the importation, exportation, movement or storage of goods.

CHAPTER 3

CLEARANCE AND OTHER CUSTOMS FORMALITIES

Competent Customs Offices

3.1	Standard	The Customs shall designate the Customs offices at which goods may be produced or cleared. In determining the competence and location of these offices and their hours of business, the factors to be taken into account shall include in particular the requirements of the trade
3.2	Standard	At the request of the person concerned and for reasons deemed valid by the Customs, the latter shall, subject to the availability of resources, perform the functions laid down for the purposes of a Customs procedure and practice outside the designated hours of business or away from Customs offices. Any expenses chargeable by the Customs shall be limited to the approximate cost of the services rendered.
3.3	Standard	Where Customs offices are located at a common border crossing, the Customs administrations concerned shall correlate the business hours and the competence of those offices.

3.4	Transitional	At common border crossings, the Customs administrations concerned shall,
	Standard	whenever possible, operate joint controls.
3.5	Transitional	Where the Customs intend to establish a new Customs office or to convert an
	Standard	existing one at a common border crossing, they shall, wherever possible, co- operate with the neighbouring Customs to establish a juxtaposed Customs
		office to facilitate joint controls.

The Declarant: (a) Persons entitled to act as declarant

3.6	Standard	National legislation shall specify the conditions under which a person is entitled to act as declarant.
3.7	Standard	Any person having the right to dispose of the goods shall be entitled to act as declarant.

The Declarant: (b) Responsibilities of the declarant

3.8	Standard	The declarant shall be held responsible to the Customs for the accuracy of
		the particulars given in the Goods declaration and the payment of the duties
		and taxes.

The Declarant: (c) Rights of the declarant

3.9	Standard	Before lodging the Goods declaration the declarant shall be allowed, under
		such conditions as may be laid down by the Customs:
		(a) to inspect the goods; and
		(b) to draw samples
3.10	Standard	The Customs shall not require a separate Goods declaration in respect of
		samples allowed to be drawn under Customs supervision, provided that such
		samples are included in the Goods declaration concerning the relevant
		consignment.

3.11	Standard	The contents of the Goods declaration shall be prescribed by the Customs. The paper format of the Goods declaration shall conform to the UN-layout key. For automated Customs clearance processes, the format of the electronically lodged Goods declaration shall be based on international standards for electronic information exchange as prescribed in the Customs Co-operation Council Recommendations on information technology.
3.12	Standard	The Customs shall limit the data required in the Goods declaration to only such particulars as are deemed necessary for the assessment and collection of duties and taxes, the compilation of statistics and the application of Customs law.
3.13	Standard	Where, for reasons deemed valid by the Customs, the declarant does not have all the information required to make the Goods declaration, a provisional or incomplete Goods declaration shall be allowed to be lodged, provided that it contains the particulars deemed necessary by the Customs and that the declarant undertakes to complete it within a specified period.
3.14	Standard	If the Customs register a provisional or incomplete Goods declaration, the tariff treatment to be accorded to the goods shall not be different from that which would have been accorded had a complete and correct Goods declaration been lodged in the first instance. The release of the goods shall not be delayed provided that any security required has been furnished to ensure collection of any applicable duties and taxes.
3.15	Standard	The Customs shall require the lodgement of the original Goods declaration and only the minimum number of copies necessary.

The Goods Declaration: (a) Goods declaration format and contents

The Goods Declaration: (b) Documents supporting the Goods declaration

3.16	Standard	In support of the Goods declaration the Customs shall require only those
		documents necessary to permit control of the operation and to ensure that all
		requirements relating to the application of Customs law have been complied
		with.

3.17	Standard	Where certain supporting documents cannot be lodged with the Goods
		declaration for reasons deemed valid by the Customs, they shall allow
		production of those documents within a specified period.
3.18	Transitional	The Customs shall permit the lodgement of supporting documents by
	Standard	electronic means.
3.19	Standard	The Customs shall not require a translation of the particulars of supporting
		documents except when necessary to permit processing of the Goods
		declaration.

Lodgement, Registration and Checking of the Goods Declaration

3.20	Standard	The Customs shall permit the lodging of the Goods declaration at any designated Customs office
3.21	Transitional	The Customs shall permit the lodging of the Goods declaration by electronic
	Standard	means.
3.22	Standard	The Goods declaration shall be lodged during the hours designated by the
		Customs.
3.23	Standard	Where national legislation lays down a time limit for lodging the Goods
		declaration, the time allowed shall be sufficient to enable the declarant to
		complete the Goods declaration and to obtain the supporting documents
		required.
3.24	Standard	At the request of the declarant and for reasons deemed valid by the Customs,
		the latter shall extend the time limit prescribed for lodging the Goods
		declaration.
3.25	Standard	National legislation shall make provision for the lodging and registering or
		checking of the Goods declaration and supporting documents prior to the
		arrival of the goods.
3.26	Standard	When the Customs cannot register the Goods declaration, they shall state the
		reasons to the declarant.

Standard	The Customs shall permit the declarant to amend the Goods declaration that has already been lodged, provided that when the request is received they
	have not begun to check the Goods declaration or to examine the goods.
Transitional	The Customs shall permit the declarant to amend the Goods declaration if a
Standard	if the reasons given by the declarant are deemed valid by the Customs.
Transitional	The declarant shall be allowed to withdraw the Goods declaration and apply
Standard	for another Customs procedure, provided that the request to do so is made to
	the Customs before the goods have been released and that the reasons are
	deemed valid by the Customs.
Standard	Checking the Goods declaration shall be effected at the same time or as soon
	as possible after the Goods declaration is registered.
Standard	For the purpose of checking the Goods declaration, the Customs shall take
	only such action as they deem essential to ensure compliance with Customs
	law.
	Standard Transitional Standard Transitional Standard Standard Standard

Special Procedures for Authorized Persons

3.32	Transitional	For authorized persons who meet criteria specified by the Customs,
	Standard	including having an appropriate record of compliance with Customs
		requirements and a satisfactory system for managing their commercial
		records, the Customs shall provide for:
		- release of the goods on the provision of the minimum information necessary to identify the goods and permit the subsequent completion of the final Goods declaration;
		- clearance of the goods at the declarant's premises or another place authorized by the Customs;
		- and, in addition, to the extent possible, other special procedures such as :
		- allowing a single Goods declaration for all imports or exports in a given period where goods are imported or exported frequently by the same person;

	- use of the authorized persons' commercial records to self-
	assess their duty and tax liability and, where appropriate,
	to ensure compliance with other Customs requirements;
	- allowing the lodgement of the Goods declaration by means
	of an entry in the records of the authorized person to be
	supported subsequently by a supplementary Goods
	declaration.

Examination of the Goods: (a) Time required for examination of goods

3.33	Standard	When the Customs decide that goods declared shall be examined, this examination shall take place as soon as possible after the Goods declaration has been registered.
3.34	Standard	When scheduling examinations, priority shall be given to the examination of live animals and perishable goods and to other goods which the Customs accept are urgently required.
3.35	Transitional Standard	If the goods must be inspected by other competent authorities and the Customs also schedules an examination, the Customs shall ensure that the inspections are co-ordinated and, if possible, carried out at the same time.

Examination of the Goods: (b) Presence of the declarant at examination of goods

3.36	Standard	The Customs shall consider requests by the declarant to be present or to be
		represented at the examination of the goods. Such requests shall be granted
		unless exceptional circumstances exist.
3.37	Standard	If the Customs deem it useful, they shall require the declarant to be present
		or to be represented at the examination of the goods to give them any
		assistance necessary to facilitate the examination.

Examination of the Goods: (c) Sampling by the Customs

3.38	Standard	Samples shall be taken only where deemed necessary by the Customs to
		establish the tariff description and/or value of goods declared or to ensure
		the application of other provisions of national legislation. Samples drawn
		shall be as small as possible.

Errors

satisfied that such errors are inadvertent and that there has be fraudulent intent or gross negligence. Where they consider it neces	been no
fraudulent intent or gross negligence. Where they consider it neces	
	essary to
discourage a repetition of such errors, a penalty may be imposed but s	shall be
no greater than is necessary for this purpose.	

Release of Goods

3 40	Standard	Goods declared shall be released as soon as the Customs have examined
5.40	Standard	doods declared shall be released as soon as the customs have examined
		them or decided not to examine them, provided that:
		- no offence has been found;
		- the import or export licence or any other documents required have been acquired;
		- all permits relating to the procedure concerned have been acquired; and
		- any duties and taxes have been paid or that appropriate action has been taken to ensure their collection.
3.41	Standard	If the Customs are satisfied that the declarant will subsequently accomplish
		all the formalities in respect of clearance they shall release the goods
		manifold that the declarant produces a commercial or official document
		provided that the declarant produces a commercial of official document
		giving the main particulars of the consignment concerned and acceptable to
		the Customs, and that security, where required, has been furnished to ensure
		collection of any applicable duties and taxes.
3.42	Standard	When the Customs decide that they require laboratory analysis of samples,
		detailed technical documents or expert advice, they shall release the goods
		before the results of such examination are known, provided that any security
		required has been furnished and provided they are satisfied that the goods
		required has been furnished and provided they are satisfied that the goods
		are not subject to prohibitions or restrictions.

3.43	Standard	When an offence has been detected, the Customs shall not wait for the
		completion of administrative or legal action before they release the goods,
		provided that the goods are not liable to confiscation or forfeiture or to be
		needed as evidence at some later stage and that the declarant pays the duties
		and taxes and furnishes security to ensure collection of any additional duties
		and taxes and of any penalties which may be imposed.

Abandonment or Destruction of Goods

3.44	Standard	When goods have not yet been released for home use or when they have
		been placed under another Customs procedure, and provided that no offence
		has been detected, the person concerned shall not be required to pay the
		duties and taxes or shall be entitled to repayment thereof:
		- when, at his request, such goods are abandoned to the Revenue or destroyed or rendered commercially valueless under Customs
		control as the Customs may decide Any costs involved shall be
		borne by the person concerned;
		- when such goods are destroyed or irrecoverably lost by accident or
		force majeure, provided that such destruction or loss is duly
		established to the satisfaction of the Customs;
		- on shortages due to the nature of the goods when such shortages are
		duly established to the satisfaction of the Customs.
		Any waste or scrap remaining after destruction shall be liable, if taken into
		home use or exported, to the duties and taxes that would be applicable to
		such waste or scrap imported or exported in that state.
3.45	Transitional	When the Customs sell goods which have not been declared within the time
	Standard	allowed or could not be released although no offence has been discovered,
	Stundard	the proceeds of the sale, after deduction of any duties and taxes and all other
		charges and expenses incurred, shall be made over to those persons entitled
		to receive them or, when this is not possible, held at their disposal for a
		specified period.

CHAPTER 4

DUTIES AND TAXES

A. Assessment, Collection and Payment of Duties and Taxes

4.1	Standard	National legislation shall define the circumstances when liability to duties and taxes is incurred.
4.2	Standard	The time period within which the applicable duties and taxes are assessed shall be stipulated in national legislation. The assessment shall follow as soon as possible after the Goods declaration is lodged or the liability is otherwise incurred.
4.3	Standard	The factors on which the assessment of duties and taxes is based and the conditions under which they are determined shall be specified in national legislation.
4.4	Standard	The rates of duties and taxes shall be set out in official publications.
4.5	Standard	National legislation shall specify the point in time to be taken into consideration for the purpose of determining the rates of duties and taxes.
4.6	Standard	National legislation shall specify the methods that may be used to pay the duties and taxes.
4.7	Standard	National legislation shall specify the person(s) responsible for the payment of duties and taxes.
4.8	Standard	National legislation shall determine the due date and the place where payment is to be made.
4.9	Standard	When national legislation specifies that the due date may be after the release of the goods, that date shall be at least ten days after the release. No interest shall be charged for the period between the date of release and the due date.
4.10	Standard	National legislation shall specify the period within which the Customs maytake legal action to collect duties and taxes not paid by the due date.
4.11	Standard	National legislation shall determine the rate of interest chargeable on amounts of duties and taxes that have not been paid by the due date and the conditions of application of such interest.

4.12	Standard	When the duties and taxes have been paid, a receipt constituting proof of payment shall be issued to the payer, unless there is other evidence constituting proof of payment.
4.13	Transitional Standard	National legislation shall specify a minimum value and/or a minimum amount of duties and taxes below which no duties and taxes will be collected.
4.14	Standard	If the Customs find that errors in the Goods declaration or in the assessment of the duties and taxes will cause or have caused the collection or recovery of an amount of duties and taxes less than that legally chargeable, they shall correct the errors and collect the amount underpaid. However, if the amount involved is less than the minimum amount specified in national legislation, the Customs shall not collect or recover that amount.

B. Deferred Payment of Duties and Taxes

4.15	Standard	Where national legislation provides for the deferred payment of duties and taxes, it shall specify the conditions under which such facility is allowed.
4.16	Standard	Deferred payment shall be allowed without interest charges to the extent possible.
4.17	Standard	The period for deferred payment of duties and taxes shall be at least fourteen days.

C. Repayment of Duties and Taxes

4.18	Standard	Repayment shall be granted where it is established that duties and taxes have been overcharged as a result of an error in their assessment.
4.19	Standard	 Repayment shall be granted in respect of imported or exported goods which are found to have been defective or otherwise not in accordance with the agreed specifications at the time of importation or exportation and are returned either to the supplier or to another person designated by the supplier, subject to the following conditions: the goods have not been worked, repaired or used in the country of importation, and are re-exported within a reasonable time;

		- the goods have not been worked, repaired or used in the country to
		which they were exported, and are re-imported within a reasonable
		time.
		Use of the goods shall, however, not hinder the repayment if such use was
		indispensable to discover the defects or other circumstances which caused
		the re-exportation or re-importation of the goods.
		As an alternative to re-exportation or re-importation, the goods may be
		abandoned to the Revenue or destroyed or rendered commercially valueless
		under Customs control, as the Customs may decide. Such abandonment or
		destruction shall not entail any cost to the Revenue.
4.20	Transitional	Where permission is given by the Customs for goods originally declared for
	Standard	a Customs procedure with payment of duties and taxes to be placed under
		another Customs procedure, repayment shall be made of any duties and taxes
		charged in excess of the amount due under the new procedure.
4.21	Standard	Decisions on claims for repayment shall be reached, and notified in writing
		to the persons concerned, without undue delay, and repayment of amounts
		overcharged shall be made as soon as possible after the verification of
		claims.
4.22	Standard	Where it is established by the Customs that the overcharge is a result of an
		error on the part of the Customs in assessing the duties and taxes, repayment
		shall be made as a matter of priority.
4.23	Standard	Where time limits are fixed beyond which claims for repayment will not be
		accepted, such limits shall be of sufficient duration to take account of the
		differing circumstances pertaining to each type of case in which repayment
		may be granted.
4.24	Standard	Repayment shall not be granted if the amount involved is less than the
		minimum amount specified in national legislation.
CHAPTER 5 SECURITY

5.1	Standard	National legislation shall enumerate the cases in which security is required
		and shall specify the forms in which security is to be provided.
5.2	Standard	The Customs shall determine the amount of security.
5.3	Standard	Any person required to provide security shall be allowed to choose any form
		of security provided that it is acceptable to the Customs.
5.4	Standard	Where national legislation provides, the Customs shall not require security
		when they are satisfied that an obligation to the Customs will be fulfilled.
5.5	Standard	When security is required to ensure that the obligations arising from a
		Customs procedure will be fulfilled, the Customs shall accept a general
		security, in particular from declarants who regularly declare goods at
		different offices in the Customs territory.
5.6	Standard	Where security is required, the amount of security to be provided shall be as
		low as possible and, in respect of the payment of duties and taxes, shall not
		exceed the amount potentially chargeable.
5.7	Standard	Where security has been furnished, it shall be discharged as soon as possible
		after the Customs are satisfied that the obligations under which the security
		was required have been duly fulfilled.

CHAPTER 6 CUSTOMS CONTROL

6.1	Standard	All goods, including means of transport, which enter or leave the Customs territory, regardless of whether they are liable to duties and taxes, shall be subject to Customs control.
6.2	Standard	Customs control shall be limited to that necessary to ensure compliance with the Customs law.
6.3	Standard	In the application of Customs control, the Customs shall use risk management.
6.4	Standard	The Customs shall use risk analysis to determine which persons and which goods, including means of transport, should be examined and the extent of the examination.

6.5	Standard	The Customs shall adopt a compliance measurement strategy to support risk management.
6.6	Standard	Customs control systems shall include audit-based controls.
6.7	Standard	The Customs shall seek to co-operate with other Customs administrations and seek to conclude mutual administrative assistance agreements to enhance Customs control.
6.8	Standard	The Customs shall seek to co-operate with the trade and seek to conclude Memoranda of Understanding to enhance Customs control.
6.9	Transitional Standard	The Customs shall use information technology and electronic commerce to the greatest possible extent to enhance Customs control.
6.10	Standard	The Customs shall evaluate traders' commercial systems where those systems have an impact on Customs operations to ensure compliance with Customs requirements.

CHAPTER 7

APPLICATION OF INFORMATION TECHNOLOGY

7.1	Standard	The Customs shall apply information technology to support Customs
		operations, where it is cost-effective and efficient for the Customs and for
		the trade. The Customs shall specify the conditions for its application.
7.2	Standard	When introducing computer applications, the Customs shall use relevant
		internationally accepted standards.
7.3	Standard	The introduction of information technology shall be carried out in
		consultation with all relevant parties directly affected, to the greatest extent
		possible.
7.4	Standard	New or revised national legislation shall provide for:
7.4	Standard	 New or revised national legislation shall provide for: electronic commerce methods as an alternative to paper-based
7.4	Standard	 New or revised national legislation shall provide for: electronic commerce methods as an alternative to paper-based documentary requirements;
7.4	Standard	 New or revised national legislation shall provide for: electronic commerce methods as an alternative to paper-based documentary requirements; electronic as well as paper-based authentication methods;
7.4	Standard	 New or revised national legislation shall provide for: electronic commerce methods as an alternative to paper-based documentary requirements; electronic as well as paper-based authentication methods; the right of the Customs to retain information for their own use and,
7.4	Standard	 New or revised national legislation shall provide for: electronic commerce methods as an alternative to paper-based documentary requirements; electronic as well as paper-based authentication methods; the right of the Customs to retain information for their own use and, as appropriate, to exchange such information with other Customs
7.4	Standard	 New or revised national legislation shall provide for: electronic commerce methods as an alternative to paper-based documentary requirements; electronic as well as paper-based authentication methods; the right of the Customs to retain information for their own use and, as appropriate, to exchange such information with other Customs administrations and all other legally approved parties by means of

CHAPTER 8

8.1	Standard	Persons concerned shall have the choice of transacting business with the Customs either directly or by designating a third party to act on their behalf.
8.2	Standard	National legislation shall set out the conditions under which a person may act for and on behalf of another person in dealing with the Customs and shall lay down the liability of third parties to the Customs for duties and taxes and for any irregularities.
8.3	Standard	The Customs transactions where the person concerned elects to do business on his own account shall not be treated less favourably or be subject to more stringent requirements than those Customs transactions which are handled for the person concerned by a third party.
8.4	Standard	A person designated as a third party shall have the same rights as the person who designated him in those matters related to transacting business with the Customs.
8.5	Standard	The Customs shall provide for third parties to participate in their formal consultations with the trade.
8.6	Standard	The Customs shall specify the circumstances under which they are not prepared to transact business with a third party.
8.7	Standard	The Customs shall give written notification to the third party of a decision not to transact business.

RELATIONSHIP BETWEEN THE CUSTOMS AND THIRD PARTIES

CHAPTER 9

INFORMATION, DECISIONS AND RULINGS SUPPLIED BY THE CUSTOMS

A. Information of General Application

9.1	Standard	The Customs shall ensure that all relevant information of general application
		pertaining to Customs law is readily available to any interested person.

9.2	Standard	When information that has been made available must be amended due to
		changes in Customs law, administrative arrangements or requirements, the
		Customs shall make the revised information readily available sufficiently in
		advance of the entry into force of the changes to enable interested persons to
		take account of them, unless advance notice is precluded.
9.3	Transitional	The Customs shall use information technology to enhance the provision of
	Standard	information.

B. Information of a Specific Nature

1			
	9.4	Standard	At the request of the interested person, the Customs shall provide, as quickly
			and as accurately as possible, information relating to the specific matters
			raised by the interested person and pertaining to Customs law.
	9.5	Standard	The Customs shall supply not only the information specifically requested but
			also any other pertinent information which they consider the interested
			person should be made aware of.
	9.6	Standard	When the Customs supply information, they shall ensure that they do not
			divulge details of a private or confidential nature affecting the Customs or
			third parties unless such disclosure is required or authorized by national
			legislation.
	9.7	Standard	When the Customs cannot supply information free of charge, any charge
			shall be limited to the approximate cost of the services rendered.

C. Decisions and Rulings

9.8	Standard	At the written request of the person concerned, the Customs shall notify their
		decision in writing within a period specified in national legislation. Where
		the decision is adverse to the person concerned, the reasons shall be given
		and the right of appeal advised.
9.9	Standard	The Customs shall issue binding rulings at the request of the interested
		person, provided that the Customs have all the information they deem
		necessary.

CHAPTER 10 APPEALS IN CUSTOMS MATTERS

A. Right of Appeal

10.1	Standard	National legislation shall provide for a right of appeal in Customs matters.
10.2	Standard	Any person who is directly affected by a decision or omission of the Customs shall have a right of appeal.
10.3	Standard	The person directly affected by a decision or omission of the Customs shall be given, after having made a request to the Customs, the reasons for such decision or omission within a period specified in national legislation. This may or may not result in an appeal.
10.4	Standard	National legislation shall provide for the right of an initial appeal to the Customs.
10.5	Standard	Where an appeal to the Customs is dismissed, the appellant shall have the right of a further appeal to an authority independent of the Customs administration.
10.6	Standard	In the final instance, the appellant shall have the right of appeal to a judicial authority.

B. Form and Grounds of Appeal

10.7	Standard	An appeal shall be lodged in writing and shall state the grounds on which it is being made.
10.8	Standard	A time limit shall be fixed for the lodgement of an appeal against a decision of the Customs and it shall be such as to allow the appellant sufficient time to study the contested decision and to prepare an appeal.
10.9	Standard	Where an appeal is to the Customs they shall not, as a matter of course, require that any supporting evidence be lodged together with the appeal but shall, in appropriate circumstances, allow a reasonable time for the lodgement of such evidence.

C. Consideration of Appeal

10.10	Standard	The Customs shall give its ruling upon an appeal and written notice thereof to the appellant as soon as possible.
10.11	Standard	Where an appeal to the Customs is dismissed, the Customs shall set out the reasons therefor in writing and shall advise the appellant of his right to lodge any further appeal with an administrative or independent authority and of any time limit for the lodgement of such appeal.
10.12	Standard	Where an appeal is allowed, the Customs shall put their decision or the ruling of the independent or judicial authority into effect as soon as possible, except in cases where the Customs appeal against the ruling.

HONG KONG'S IMPORT AND EXPORT LICENSING PROVISIONS

Restrictions imposed over commodities other than dutiable commodities, strategic commodities and textiles (refer Chapter 6) that are imported into and exported from Hong Kong are extensive. This appendix details the various commodities subject to licensing controls, including the respective legislative responsibilities of the various government authorities involved in the regulatory process. In all instances, HKC&ED has an overriding responsibility to ensure that all goods imported into, exported from, or transhipped through Hong Kong are in full compliance with the relevant statutory requirements.

Importation of *motor vehicles* is regulated under the provisions of the Air Pollution Control (Vehicle Design Standards) (Emission) Regulations, Chapter 311J, the Motor Vehicles (First Registration Tax) Ordinance, Chapter 330 and the Noise Control (Motor Vehicles) Regulation, Chapter 400I, Laws of Hong Kong. Policy responsibility falls to the Environmental Protection Department, the Transport Department and HKC&ED. The importation and exportation of *left hand drive vehicles*, which are only permitted in Hong Kong under limited circumstances, is also subject to licensing controls under the provisions of the Import and Export (General) Regulations, Chapter 60A, Laws of Hong Kong, for which HKC&ED is the licenceissuing authority. In all cases, HKC&ED has responsibility for ensuring compliance at the point of import and export.

Importation and exportation of *optical disc mastering and replication equipment* is subject to licensing controls under the provisions of the Import and Export (General) Regulations, Chapter 60A, Laws of Hong Kong. HKC&ED is the licence-issuing authority and also has responsibility for ensuring compliance with these provisions.

Dangerous drugs such as heroin, cocaine, cannabis, opium, morphine, ecstasy and amphetamines are subject to import and export regulations under the Import and Export (General) Regulations, Chapter 60A, and the Dangerous Drugs Ordinance, Chapter 134, Laws of Hong Kong. The Health Department is the relevant licence-issuing authority, and is also responsible for issuing import certificates. HKC&ED

has responsibility for ensuring compliance with legislative requirements at the point of import and export.

Pharmaceutical products and medicines are subject to import and export regulations under the Import and Export (General) Regulations, Chapter 60A, Laws of Hong Kong. The Trade and Industry Department is the licence-issuing authority, with any licences requiring the prior endorsement of the Health Department's Pharmacy and Poisons Board. HKC&ED has responsibility for ensuring compliance with legislative requirements at the point of import and export.

Importation, exportation and transportation of a range of *precursors and essential chemicals* for the manufacture of dangerous drugs or psychotropic substances is also subject to licensing controls under the provisions of the Control of Chemicals Ordinance, Chapter 145, Laws of Hong Kong, which identifies 25 chemicals according to the required level of control. Importation, exportation and transportation of 19 such items are subject to licensing and authorisation control, while the remainder are subject to such controls only when they are being exported to certain countries. HKC&ED is the licence-issuing authority and also has responsibility for ensuring compliance with these provisions.

Importation, exportation and transportation of *outboard engines* exceeding 111.9 kilowatts (150 horsepower) is subject to licensing controls under the provisions of the Import and Export (General) Regulations, Chapter 60A and the Import and Export (Carriage of Articles) Regulations, Chapter 60I, Laws of Hong Kong. HKC&ED is the licence-issuing authority and also has responsibility for ensuring compliance with these provisions.

Exportation of *television sets, video cassette recorders and video cassette players* is subject to licensing controls under the provisions of the Export (Prescribed Articles) Regulations, Chapter 60D, Laws of Hong Kong. HKC&ED is the licence-issuing authority and also has responsibility for ensuring compliance with these provisions.

Importation and transportation of *radioactive substances and irradiating apparatus* is controlled by the Import (Radiation) (Prohibition) Regulations, Chapter 60K, and the Radiation Ordinance, Chapter 303, Laws of Hong Kong. The Trade and Industry Department is the relevant licence-issuing authority, and licences may only be issued

to holders of a Radioactive Substances Licence or an Irradiating Apparatus Licence, which are issued by the Radiation Board. HKC&ED has administrative responsibility for ensuring compliance with legislative requirements at the point of import.

Ozone depleting substances, i.e. hydrochlorofluorocarbons (HCFCs) and methyl bromide are subject to import and export licensing controls, including import quotas, under the provisions of the Ozone Layer Protection Ordinance, Chapter 403, Laws of Hong Kong and its subsidiary regulations. The purpose of the quota arrangements is to ensure that the level of such substances that are retained for local consumption do not exceed those agreed to under the Montreal Protocol on Substances that Deplete the Ozone Layer. Quotas are issued to registered importers by the Trade and Industry Department in consultation with the Environmental Protection Department, based on their commercial requirements and their past import performance. Importation of methyl bromide for local consumption is permitted only where it is to be used for quarantine and pre-shipment cargo treatment purposes. HKC&ED has responsibility for ensuring compliance with legislative requirements at the point of import and export.

Importation and exportation of *pesticides* is controlled under the Import and Export (General) Regulations, Chapter 60A and the Pesticides Ordinance, Chapter 133, Laws of Hong Kong. The Agriculture, Fisheries and Conservation Department is the licence-issuing authority (under the delegation of the Trade and Industry Department), with HK C&ED having responsibility for ensuring compliance with legislative requirements at the point of import and export.

Importation and exportation of *endangered animal and plant species* as well as medicines or other substances containing or claiming to contain highly endangered animal ingredients, is regulated under the Animals and Plants (Protection of Endangered Species) Ordinance, Chapter 187, Laws of Hong Kong, which gives effect to the provisions of the Convention on International Trade in Endangered Species of Wild Fauna and Flora. In addition, the exportation of *protected wild animals*, including parts, nests or eggs of such animals taken in Hong Kong, are regulated under the provisions of the Wild Animals Protection Ordinance, Chapter 170, Laws of Hong Kong. In all cases, the Agriculture, Fisheries and Conservation

Department is the licence-issuing authority, with HKC&ED having responsibility for ensuring compliance with legislative requirements at the point of import and export.

Importation and exportation of certain *animals, birds and their parts* is regulated by the Public Health (Animals and Birds) Ordinance, Chapter 139, the Dogs & Cats Regulations, Chapter 167A and the Rabies Ordinance, Chapter 421, Laws of Hong Kong. The Agriculture, Fisheries and Conservation Department is the licence-issuing authority, with HKC&ED having responsibility for ensuring compliance with legislative requirements at the point of import and export.

Importation of certain *plants, plant pests and soil,* with the exception of cut flowers and fruit and vegetables for consumption, is regulated under the provisions of the Plant (Importation and Pest Control) Ordinance, Chapter 207, Laws of Hong Kong. The Agriculture, Fisheries and Conservation Department is the licence-issuing authority, with HKC&ED having responsibility for ensuring compliance with legislative requirements at the point of import and export.

Rice is the only remaining commodity that is deemed by the Government to be a 'reserved commodity', i.e. a commodity for which a reserve stock must be maintained at all times (other goods that were previously deemed to be reserved commodities include frozen meat and frozen poultry). As such, the importation and exportation of rice is regulated under the provisions of the Reserved Commodities Ordinance, Chapter 296, Laws of Hong Kong. Import quotas also apply to rice that is imported for local consumption. Under the quota arrangements, the available amount of rice that may be imported by Registered Stockholders is determined every six months, taking into account the projected supply and demand, as well as the need to maintain reserve stocks equivalent to about 15 days' supply at any given time. The Rice Control Unit of the Trade and Industry Department is the licence-issuing authority for reserved commodities, with HK C&ED having responsibility for ensuring compliance with legislative requirements at the point of import and export.

Importation of *game and certain other meat* is regulated by the Imported Game, Meat and Poultry Regulations, Chapter 132AK, Laws of Hong Kong, for which the Food and Environmental Hygiene Department is the permission-issuing authority and HKC&ED has responsibility for ensuring compliance with legislative requirements at the point of import.

Exportation of *poultry carcasses and poultry products* is regulated under the provisions of the Poultry (Slaughtering for Export) Regulations, Chapter 139E, Laws of Hong Kong. The Agriculture, Fisheries and Conservation Department is the licence-issuing authority, with the Food and Environmental Hygiene Department responsible for issuing health certificates. In addition, the importation of *live food poultry* is regulated under the provisions of the Public Health (Animal and Birds) Regulations, Chapter 139A and the Public Health (Animal and Birds)(Chemical Residues) Regulations, Chapter 139N, Laws of Hong Kong. A Health Certificate issued by a competent veterinary authority of the exporting country must be obtained. The Food and Environmental Hygiene Department has policy responsibility for these provisions. HKC&ED has responsibility for ensuring compliance with the above legislative requirements at the point of import and export.

Importation of *live food animals other than poultry* is regulated under the provisions of the Public Health (Animals and Birds) (Chemical Residues) Regulation, Chapter 139 and the Rabies Ordinance, Chapter 421, Laws of Hong Kong. Relevant permitissuing authorities are the Agriculture, Fisheries and Conservation Department and the Food and Environmental Hygiene Department. HKC&ED has responsibility for ensuring compliance at the point of import.

Importation of *frozen or chilled meat and poultry* is regulated under the provisions of the Import and Export (General) Regulations, Chapter 60A and the Imported Game, Meat and Poultry Regulations, Chapter 132AK, Laws of Hong Kong. Consignments must be accompanied by a Health Certificate that has been issued by the competent health authority in the country of export, together with reports of chemical analysis and bacteriological examination. The Food and Environmental Hygiene Department is the relevant licence-issuing authority and HKC&ED has responsibility for ensuring compliance with regulations at the point of import.

Exportation of *fish* is regulated under the provisions of the Marine Fish (Marketing and Exportation) Regulations, Chapter291A, Laws of Hong Kong. The Fish Marketing Organisation is the permit-issuing authority, with HK C&ED having

responsibility for ensuring compliance with legislative requirements at the point of export.

Importation of *milk, milk beverages and cream* is regulated under the provisions of the Milk Regulation, Chapter 132AQ, Laws of Hong Kong. All milk consignments must be accompanied by a Health Certificate that has been issued by the competent health authority in the country of export, together with reports of chemical analysis and bacteriological examination. Prior permission to import is required from the Food and Environmental Hygiene Department and regulatory control at the point of import is the responsibility of HKC&ED.

Frozen confections are subject to similar import restrictions under the provisions of the Frozen Confections Regulation, Chapter 132AC, Laws of Hong Kong. As is the case for milk products, consignments of frozen confections must be accompanied by a Health Certificate that has been issued by the competent health authority in the country of export, together with reports of chemical analysis and bacteriological examination. Prior permission to import is required from the Food and Environmental Hygiene Department and regulatory control at the point of import is the responsibility of HKC&ED.

Importation of a variety of *other food* containing added colouring matter, metal, artificial sweeteners, mineral oil, aflatoxins, erucic acid, preservatives and antioxidants is regulated by a range of statutory provisions, including the Colouring Matter in Food Regulations, Chapter 132H, the Food Adulteration (Artificial Sweeteners) Regulations, Chapter 132U, the Food Adulteration (Metallic Contamination) Regulations, Chapter 132V, the Harmful Substances in Food Regulation Chapter 132AF, the Mineral Oil in Food Regulations, Chapter 132AR and the Preservatives in Food Regulations, Chapter 132BD, Laws of Hong Kong. The Food and Environmental Hygiene Department is responsible for ensuring that the relevant regulations are complied with prior to any food containing the regulated items being approved for sale in Hong Kong. HKC&ED is responsible for ensuring compliance with legislative requirements at the point of import.

Exportation of *non-manufactured wood packing materials* to Australia, New Zealand, Brazil, the European Union, the United States and Canada require specified

Commercial Fumigation Certificates prior to export. The Plant and Pesticides Regulatory Division of the Agriculture, Fisheries and Conservation Department has policy responsibility for these requirements and HKC&ED is responsible for ensuring compliance with legislative requirements at the point of export.

Importation and exportation of *radio transmitting apparatus* is regulated under the provisions of the Telecommunication Ordinance, Chapter 106, Laws of Hong Kong. The Telecommunications Authority is the permit-issuing authority, with HKC&ED having responsibility for ensuring compliance with legislative requirements at the point of import and export.

Importation of *sand* is regulated under the provisions of the Sand Ordinance, Chapter 147, Laws of Hong Kong. The Civil Engineering Department is the permit-issuing authority for sand removal and the Marine Department is the permit-issuing authority for sand barge route approval, with HK C&ED having responsibility for ensuring compliance with legislative requirements at the point of import.

Importation and exportation of *waste products* is regulated under the provisions of the Waste Disposal Ordinance, Chapter 354, Laws of Hong Kong and its subsidiary regulations. The Environmental Protection Department is the permit-issuing authority, with HKC&ED responsible for ensuring compliance at the point of import and export.

Carriage Licences are also required by owners of vessels of less than 250 gross tons for the placing on board or carriage of certain imports or exports within the waters of Hong Kong. Relevant articles are prescribed under the provisions of the Import and Export (Carriage of Articles) Regulations, Chapter 60I, Laws of Hong Kong, and include *television sets, video cassette recorders, video cassette players, air conditioners, refrigerators, vehicles and vehicle parts*. HKC&ED is responsible for issuing Carriage Licences and is also responsible for ensuring compliance with the regulations.

The following Table, which has been adapted from Hong Kong Trade and Industry Department (2003b), provides a summary of the various licensing arrangements.

Article	Import /Export Control	Legal Authority
Air-Conditioners	Import & Export	Import and Export (Carriage of Articles)
		Regulations, Chapter 60I
Animals, Birds & Reptiles	Import & Export	Dogs & Cats Regulations, Chapter 167A
and their parts		Public Health (Animals & Birds) Regulations,
		Chapter 139A
		Rabies Ordinance, Cap. 421
Controlled Chemicals	Import & Export	Control of Chemicals Ordinance, Chapter 145
Dutiable Commodities	Import & Export	Dutiable Commodities Ordinance, Chapter 109
Endangered Animals &	Import & Export	Animals & Plants (Protection of Endangered
Plants Species		Species) Ordinance, Chapter 187
Medicines or other		
substances containing or		
claiming to contain highly		
endangered animal		
ingredients		
Food (containing added	Import	Colouring Matter in Food Regulations, Chapter
colouring matter; metal;		132H
artificial sweeteners;		Food Adulteration (Artificial Sweeteners)
mineral oil; aflatoxins,		Regulations, Chapter 132U
erucic acid, preservatives,		Food Adulteration (Metallic Contamination)
antioxidants, etc.		Regulations, Chapter 132V
		Harmful Substances in Food Regulation,
		Chapter 132AF
		Mineral Oil in Food Regulations, Chapter
		132AR
		Preservatives in Food Regulations, Chapter.
		132BD
Frozen Confections	Import	Frozen Confections Regulation, Chapter 132AC

Summary of Hong Kong's Licensing Requirements

Frozen or Chilled Meat and	Import	Import and Export (General) Regulations,
Poultry		Chapter 60A
		Imported Game, Meat and Poultry Regulations,
		Chapter 132AK
Game & Prohibited Meat	Import	Imported Game, Meat and Poultry Regulations,
		Chapter 132AK
Live Food Animals (Other	Import	Public Health (Animals and Birds) (Chemical
than Poultry)		Residues) Regulation, Chapter 139N
		Rabies Ordinance, Chapter 421
Live Food Poultry	Import	Public Health (Animals & Birds) Regulations,
		Chapter 139A
		Public Health (Animals and Birds) (Chemical
		Residues) Regulation, Chapter 139N
Milk, Milk Beverages &	Import	Milk Regulation, Chapter 132AQ
Cream		
Motor Vehicles	Import	Air Pollution Control (Vehicle Design
		Standards) (Emission) Regulations, Chapter
		311J
		Motor Vehicles (First Registration Tax)
		Ordinance, Chapter 330
		Noise Control (Motor Vehicles) Regulation,
		Chapter 400I
Optical Disc Mastering &	Import & Export	Import and Export (General) Regulations,
Replication Equipment		Chapter 60A
Outboard Engines	Import & Export	Import and Export (Carriage of Articles)
exceeding 111.9 Kilowatts		Regulations, Chapter 60I
(150 Horsepower)		Import and Export (General) Regulations,
		Chapter 60A
Ozone Depleting	Import & Export	Ozone Layer Protection Ordinance, Chapter 403
Substances		and its subsidiary regulations
Pesticides	Import & Export	Import and Export (General) Regulations,
		Chapter 60A
		Pesticides Ordinance, Chapter 133

Pharmaceutical Products,	Import & Export	Dangerous Drugs Ordinance, Chapter 134
Medicines and Dangerous		Import and Export (General) Regulations,
Drugs		Chapter 60A
Plants, Plant Pests & Soil	Import & Export	Plant (Importation and Pest Control) Ordinance,
(except cut flowers, fruits		Chapter 207
& vegetables for		
consumption)		
Poultry Carcasses and	Export	Poultry (Slaughtering for Export) Regulations,
Poultry Products		Chapter 139E
Protected Wild Animals, or	Export	Wild Animals Protection Ordinance, Chapter
parts of protected wild		170
animals, killed or taken in		
Hong Kong; or nests or		
eggs of protected wild		
animals taken in Hong		
Kong		
Radio Transmitting	Import & Export	Telecommunications Ordinance, Chapter 106
Equipment		
Radioactive Substances/	Import	Import (Radiation) (Prohibition) Regulations,
Irradiating Apparatus		Chapter 60K
		Radiation Ordinance, Chapter 303
Refrigerators	Import & Export	Import and Export (Carriage of Articles)
		Regulations, Chapter 60I
Rice	Import & Export	Reserved Commodities Ordinance, Chapter 296
Sand	Import	Sand Ordinance, Chapter 147
Smokeless Tobacco	Import	Smokeless Tobacco Products (Prohibition)
Products		Regulations, Chapter 132BW
Strategic Commodities	Import & Export	Firearms and Ammunition Ordinance, Cap. 238
(Arms & Ammunition)		Import and Export (Strategic Commodities)
		Regulations, Chapter 60G

Strategic Commodities	Import & Export	Dangerous Goods (General) Regulations,
(Explosives)		Chapter 295B
		Dangerous Goods (Government Explosives
		Depots) Regulations, Chapter 295D
		Import and Export (Strategic Commodities)
		Regulations, Chapter 60G
Strategic Commodities	Import & Export	Import and Export (Strategic Commodities)
(Other)		Regulations, Chapter 60G
Television Sets, Video	Export	Export (Prescribed Articles) Regulations,
Cassette Recorders and		Chapter 60D
Video Cassette Players		Import and Export (Carriage of Articles)
		Regulations, Chapter 60I
Textiles	Import & Export	Export (Certificates of Origin) Regulations,
		Chapter 60H
		Import and Export (General) Regulations,
		Chapter 60A
		Import and Export Ordinance, Chapter 60
Vehicles (Left Hand Drive)	Import & Export	Import and Export (General) Regulations,
		Chapter 60A
Vehicles and Vehicle Parts	Import & Export	Import and Export (Carriage of Articles)
		Regulations, Chapter 60I
Waste	Import & Export	Waste Disposal Ordinance, Chapter 354 and its
		subsidiary regulations

Agnew, Richard (1999) *The Australian Customs Service: Towards Organisational* '*Turnaround*'. DPA Thesis, University of Canberra.

Airport Authority Hong Kong (2002) *Annual Report 2001/02*, Airport Authority Hong Kong, Hong Kong.

Airport Authority Hong Kong (2003) *Hong Kong International Airport* http://www.hkairport.com.

APEC (1998) Blueprint for Action on Electronic Commerce, APEC Secretariat, Singapore.

APEC (2002) APEC Customs Guide – Hong Kong, China – 2002, APEC, http://www.apectariff.org/hk/Tariff.htm.

Australian Customs Service (1993) The Turning Point, Review of the Australian Customs Service, AGPS, Canberra.

Australian Customs Service (1995a) *Looking to the Future - Compliance Improvement*, Report of the Industry Panel on Customs Audit Reforms. Australian Customs Service, Canberra.

Australian Customs Service (1995b) *Prudential Audit in the Customs Context*. Australian Customs Service, Canberra.

Australian Customs Service (1996) Communiqué: APEC Seminar on Customs Risk Management, Hangzhou, 3-5 September 1996. Australian Customs Service, Canberra.

Australian Customs Service (1997) *The Cargo Management Strategy*, Australian Customs Service, Canberra.

Australian Customs Service (2001a) Introduction to the Customs Trade Modernisation Legislation. Australian Customs Service, Canberra. Australian Customs Service (2001b) Regulatory Philosophy. Australian Customs Service, Canberra.

Australian Customs Service (2002a) *Trade Modernisation: Regulatory Philosophy*. Australian Customs Service, Canberra.

Australian Customs Service (2002b) 'Modernising Cargo Management', *Manifest:* Journal of the Australian Customs Service, vol. 5 no. 2 pp. 8,9.

Australian National Audit Office (1997a) Report No. 6: Risk Management in Commercial Compliance, Australian Customs Service. Australian National Audit Office, Canberra.

Australian National Audit Office (1997b) Report No. 19: Risk Management in ATO Small Business Income. Australian National Audit Office, Canberra.

Australian Taxation Office (1997) *Improving Tax Compliance in the Cash Economy*. Cash Economy Task Force Report, Australian Taxation Office, Canberra.

Ayres, Ian & Braithwaite, John (1992) *Responsive Regulation: Transcending the Deregulation Debate.* Oxford University Press, New York.

Baker, Steven W (1997) 'Customs Compliance Strategies for the Corporate Environment', *Corporate Counsel's International Adviser*, issue 149, p8.

Banks, Sam (1999) *Keynote Address: Fifth Symposium of the Americas*. World Customs Organization, www.wcoomd.org//ie/en/past_events/speech/ sam_banks. htm.

Bardach, Eugene & Kagan, Robert (1982a) *Social Regulation: Strategies for Reform.* Institute for Contemporary Studies, San Francisco.

Bardach, Eugene & Kagan, Robert (1982b) *Going by the Book: The Problem of Regulatory Unreasonableness.* Temple University Press, Philadelphia.

Barrett, Pat (1996) 'Risk Management in the APS', *Australian Accountant*, vol.66, pp.49-51.

Barrett, Pat (1997) 'Managing Risk: Perspectives from the Australian National Audit Office', *Canberra Bulletin of Public Administration*, No. 84 May: pp. 71-79.

Barrett, Pat (2000) *Accountability and Performance in a Riskier Public Sector Environment.* Address to Senior Western Australian Public Sector Executives, CPA Australia, Perth, 27 November.

Barrett, Pat (2001) *Governance and Compliance*. Presentation to the Public Sector Risk Management Conference, Brisbane, 29-31 May.

Bernstein, Peter (1996) Against the Gods: the Remarkable Story of Risk. John Wiley & Sons Inc., New York.

Braga, Murilo Jose Perini da Silva (2001) U.S. *Customs Trade Compliance and Risk Management Process: A Model for Brazilian Customs Modernization*. The George Washington University Institute of Brazilian Business and Public Management Issues, Washington DC.

Braithwaite, John (1985) *To Punish or Persuade: Enforcement of Coal Mine Safety.* State University of New York Press, Albany.

Braithwaite, John (1993) 'Improving Regulatory Compliance: Strategies and Practical Applications in OECD Countries', *OECD Public Management Occasional Papers: Regulatory Management and Reform Series No. 3*, OECD, Paris.

Brooks, Neil (1998) 'The Challenge of Tax Compliance' pp.7-33 in: Chris Evans & Abe Greenbaum (eds) *Tax Administration: Facing the Challenges of the Future*. Prospect, Sydney.

Business & Services Promotion Unit (1999) *Study of the Feasibility of Implementing an Open Bond System in Hong Kong.* Business and Services Promotion Unit, Government Secretariat, Hong Kong.

Business & Services Promotion Unit (2000) *Consultancy Study on Customs Cargo Clearance Requirements and Services*. Business and Services Promotion Unit, Government Secretariat, Hong Kong.

Caligari, Sandra (1994) The Application of Risk Management in the Commonwealth Public Service with Specific Emphasis on the Australian Customs Service. Unpublished dissertation, University of Canberra. Carmody, Michael (1998) 'Future Directions in Tax Administration or Community Confidence: The Essential Building Block' pp.255-261 in: Chris Evans & Abe Greenbaum (eds) *Tax Administration: Facing the Challenges of the Future*. Prospect, Sydney.

Cialdini, C. (1989) 'Social Motivations to Comply: Norms, Values and Principles' in: Roth and Scholz (eds) *Taxpayer Compliance Volume 2: Social Science Perspectives*. University of Pennsylvania Press, Philadelphia.

Coates, John (1990) *Risk Management - a Parliamentary Perspective*, discussion paper. Department of Finance, Canberra.

Colville, Ian, Dalton, Kevin & Tomkins, Cyril (1993) 'Developing and Understanding Cultural Change in HM Customs and Excise: There is More to Dancing than Knowing the Next Steps', *Public Administration*, vol.71 pp.549-566.

Conroy, Frank (1993) *The Turning Point: Review of the Australian Customs Service*. AGPS, Canberra.

Crandall, Robert et al (1997) *An Agenda for Federal Regulatory Reform*. American Enterprise Institute, Washington DC.

Crow Maunsell (2002) Feasibility Study for the Electronic Data Interchange System for Road Manifests: Industry Consultation Report. Crow Maunsell, Hong Kong.

Danet, M (2000) Address by WCO Secretary General - International Customs Day. World Customs Organization, Brussels.

De Kluyver, C.A. (2000) *Strategic Thinking, an Executive Perspective*. Prentice-Hall International, London.

Department of Finance (1994) Resource Management in the Australian Public Service. AGPS, Canberra.

Drury, John (2002) 'Compliance Management Direction', Compliance Models and Issues, International Federation of Customs Brokers Associations, http://www.ifcba.org/comply.htm Duffield, Grace & Grabosky, Peter (2001) 'The Psychology of Fraud', *Trends & Issues in Crime and Criminal Justice*, No. 199, Australian Institute of Criminology.

Electronic Transactions Ordinance (2000) 'Ordinance No.1 of 2000', *Government of The Hong Kong Special Administrative Region Gazette*, Legal Supplement No.1, 7 January.

Elffers, Henk (1995) *Make Them Happy to Join the Compliers Club*, paper presented to the 1995 Compliance Research Conference. Australian Taxation Office, Canberra.

Ellison, Chris (2001) Customs Legislation Amendment and Repeal (International Trade Modernisation) Bill 2001, Import Processing Charges Bill 2000, Customs Depot Licensing Charges Amendment Bill 2000: Second Reading Speech. Senate Hansard, Commonwealth of Australia, Canberra.

Emergency Management Australia (2000) *Emergency Risk Management Applications Guide*. Emergency Management Australia, Canberra.

Fiji Islands Customs Service (1998) Risk Management Policy. Fiji Islands Customs Service, Suva.

Fischoff, B., Lichtenstein, S., Slovic, P., Derby, S. L. & Keeney, R.L. (1981) *Acceptable Risk.* Cambridge University Press, Cambridge.

Forster, John & Browne, Michael (1996) Principles of Strategic Management. MacMillan, Melbourne.

Grabosky, Peter (1995) 'Using Non-Governmental Resources to Foster Regulatory Compliance', *Governance: An International Journal of Policy and Administration*, vol. 8, October pp.527-50.

Grabosky, Peter (1995) 'Regulation by Reward: On the Use of Incentives as Regulatory Instruments', *Law and Policy*, vol. 17, pp.257-82.

Grabosky, Peter (1997) 'Inside the Pyramid: Towards a Conceptual Framework for the Analysis of Regulatory Systems', *International Journal of the Sociology of Law*, vol 25, pp.195-201.

Grabosky, Peter & Braithwaite, John (1986) Of Manners Gentle: Enforcement strategies of Australian Business Regulatory Agencies. Oxford University Press, Melbourne.

Hamilton, Stuart (1990) 'Risk Management and Equitable Decision-Making: Measuring Success in Health and Housing Programmes', *Canberra Bulletin of Public Administration* No. 56.

Hayes, Tom (1993) *Can EDI Eliminate Customs?* Address by Mr T.P. Hayes, AO, Secretary General, Customs Co-operation Council, to the Pan-Asian EDI Summit Kuala Lumpur, Malaysia, July.

Hong Kong Census & Statistics Department (1999) *Analysis of Re-export Statistics in First Half of 1999.* Census & Statistics Department, Hong Kong.

Hong Kong Census & Statistics Department (2003) *Hong Kong Statistics*. Census & Statistics Department, Hong Kong, http://www.info.gov.hk/censtatd/eng/hkstat/.

Hong Kong Chief Executive (1999) *Chief Executive's Policy Address 1999*. Government of the Hong Kong Special Administrative Region, http://www.policyaddress.gov.hk/pa99/eindex.htm.

Hong Kong Chief Executive (2003) *CE's Speech at ICAC-Interpol Conference*. Government of the Hong Kong Special Administrative Region, http://www.info.gov.hk/gia/general/200301/22/0122117.htm.

Hong Kong Commerce & Industry Bureau (2001) *Consultation Paper on Future Arrangement for Provision of Government Electronic Data Interchange Services*. Commerce & Industry Bureau, Hong Kong.

Hong Kong Commerce & Industry Bureau (2002) *Feasibility Study for the Electronic Data Interchange System for Road Manifests*. Commerce & Industry Bureau, Hong Kong.

Hong Kong Customs & Excise Department (1996) U.S. Customs – Hong Kong Government Announcement Concerning Textile Regulations. News Release 19 June, Customs & Excise Department, Hong Kong. Hong Kong Customs & Excise Department (2002) Vision, Mission and Values. Customs and Excise Department, Hong Kong, http://www.info.gov.hk/customs/eng/ about/vision_e.html.

Hong Kong Customs & Excise Department (2002a) *IPR Protection in Hong Kong*. Customs and Excise Department, Hong Kong.

Hong Kong Customs & Excise Department (2002b) *Code on Conduct and Discipline, Revised February 2002.* Customs and Excise Department, Hong Kong.

Hong Kong Customs & Excise Department (2002c) *A New Intelligence Bureau*. Customs & Excise Department, Hong Kong, http://www.info.gov.hk/customs/eng/ new/development/intelligence_e.html.

Hong Kong Customs & Excise Department (2003) *Electronic Transactions Ordinance*. Customs and Excise Department, Hong Kong, http://www.info.gov.hk/ customs/ eng/ notice/ordinance_e.html.

Hong Kong Department of Justice (2003) *The Laws of Hong Kong*. Department of Justice, Hong Kong, http://www.info.gov.hk/justice/new/laws/index.htm

Hong Kong Legislative Council (1999) *Legislative Council Brief: Electronic Transactions Bill.* Legislative Council, Hong Kong.

Hong Kong Port & Maritime Board (2001) *Study to Strengthen Hong Kong's Role as the Preferred International and Regional Transportation and Logistics Hub: Executive Summary.* Port and Maritime Board, Hong Kong.

Hong Kong Port & Maritime Board (2002) *Annual Report 2001*. Port & Maritime Board, Hong Kong.

Hong Kong Trade and Industry Department (2003) *Textiles Control Policy*. Trade and Industry Department, Hong Kong, http://www.tid.gov.hk/english/aboutus/ tradepolicy/tcpolicy.html.

Hong Kong Trade and Industry Department (2003a) Licence Exemptions for Textiles Import, Re-export and Export - Textiles Trader Registration Scheme (TTRS). Trade and Industry Department, Hong Kong, http://www.tid.gov.hk/textonly/english/ import_export/textiles/ts_licence.html.

Hong Kong Trade and Industry Department (2003b) *Overview of Hong Kong's Import and Export Licensing and Control.* Trade and Industry Department, Hong Kong, http://www.tid.gov.hk/service/ie/jsp/IE_Gen_eService_e.jsp

Hong Kong Trade and Industry Department (2003c) *Strategic Trade Control in the Hong Kong Special Administrative Region of the People's Republic of China*. Trade and Industry Department, Hong Kong, http://www.info.gov.hk/tid/faq/strategic.htm

Hong Kong Trade and Industry Department (2003d) *Strategic Trade Controls Circular No. 1/03 - Air Transhipment Cargo Exemption Scheme for Specified Strategic Commodities (SCTREX) :List of Valid Registrants (as at 1 January 2003).* Trade and Industry Department, Hong Kong.

Hubbard, Graeme, Pocknee, Graeme & Taylor, Graeme (1996) *Practical Australian Strategy*. Prentice Hall, Sydney.

Hubbard, G. (2000) *Strategic Management, Thinking, Analysis and Action*. Prentice-Hall, Frenchs Forest.

Humphrey, R.G. (1988) 'Risk management and the Role of the Auditor in Preventing Fraud', *Canberra Bulletin of Public Administration*, No. 60.

Information Infrastructure Advisory Committee (2001) *IIAC-WGEETE Paper No. 1/2001: Paperless Customs Clearance Initiatives.* Information Infrastructure Advisory Committee Working Group on E-Commerce Environment and Technologies Exploitation, Hong Kong.

Information Technology & Broadcasting Bureau (2002) *Hong Kong: Connecting the World – Digital 21 Strategy*. Information Technology & Broadcasting Bureau, Hong Kong.

Information Technology Services Department (1999) *Feasibility Study for Phase 1 of the Electronic Data Interchange (EDI) System For Cargo Manifests for the Trade and Industry Bureau.* Information Technology Services Department, Hong Kong.

Ivanovic, Enrique (2001) *Message from the Chairman: Seeing Less, Knowing More.* World Customs Organization, www.wcoomd.org//ie/en/magazine/ n_33_en/en33p02.

Japanese Standards Association (2001) JIS Q 2001:2001 Guidelines for Development and Implementation of Risk Management System. Japanese Standards Association, Tokyo.

Kelly, Frank (1993) 'Foreword' in: Vassarotti, C. *Risk Management: A Customs Perspective*. Australian Customs Service, Canberra.

Kelly, Raymond (2000) *Speech to the National Press Club*, 17 March, U.S. Customs Service, www.customs.ustreas.gov/about/speeches/speech0317-00.htm.

Knight, Kevin (1999) *AS/NZS* 4360:1999 – *Update and Developments*. Presentation to the IBC Risk Management in the Public Sector Conference, March.

Kotter, John (1990) *A Force for Change: How Leadership Differs from Management.* The Free Press New York.

Kotter, John (1996) Leading Change. Harvard Business School Press, Boston, Massachusetts.

Kowloon-Canton Railway Corporation (2002) *Annual Report 2001*. Kowloon-Canton Railway Corporation, Hong Kong.

Labuda, Janet (2000) 'Risk Management and You', U.S. Customs Today, December, http://www.customs.ustreas.gov/custoday/dec2000/risk.htm.

Lane, Michael (1998a) *Customs Modernization and the International Trade Superhighway*. Quorum Books, Westport, Connecticut.

Lane, Michael (1998b) On the Modernisation of U.S. Customs: Implications on Trade, *Testimony before the Subcommittee on International Economic Policy and Trade of the House Committee on International Relations*. Joint Industry Group, Washington DC.

Lau, Patrick (1998) Speech by the Acting Secretary for Planning, Environment and Lands, Mr Patrick Lau, at the Signing Ceremony of Land Grant Documents for Container Terminal No. 9 (CT9). Planning, Environment and Lands Department, Hong Kong.

Linet, Paul E (1997) Customs Modernization Act: New Era of Rights & Responsibilities. http://www.linetlaw.com/mod.html.

McGrath, Matthew T (2002) 'A New Attitude: As They Attempt to Jumpstart Global Trade, the World's Trade Ministers are Looking at Border Controls and Other Logistics Issues in a Whole New Light', *Logistics Management & Distribution Report*, February.

McGrath, Mike (2001) Australian Customs Developments and their Impact on Australia's International Trade Statistics: A Paper Presented by Mike McGrath to the OECD International Trade Statistics Conference, Paris December 5 2001, Australian Bureau of Statistics, Canberra.

Management Advisory Board (MAB/MIAC) (1996) *Guidelines for Managing Risk in the Australian Public Service*. Joint publication of the Management Advisory Board and its Management Improvement Advisory Committee, Report No. 22, AGPS, Canberra.

Oceania Customs Organisation (2000) *Strategic Plan/Work Plan 2000-2002*. Oceania Customs Organisation, Brisbane.

OECD (1995) *Recommendation of the Council of the OEDC on Improving the Quality of Government Regulation*. Organization for Economic Cooperation and Development, Paris.

OECD (1997) *Report on Regulatory Reform: Synthesis*. Organization for Economic Cooperation and Development, Paris.

OECD (2000) *Reducing the Risk of Policy Failure: Challenges for Regulatory Compliance.* Organization for Economic Cooperation and Development, Paris.

O'Hare, Michael (1982) 'Information Strategies as Regulatory Surrogates', in Eugene Bardach and Robert A. Kagan, eds. *Social Regulation: Strategies for Reform*. Institute for Conpemporary Studies, San Francisco. Parker, John (2001) 'Modernize Customs': The International Chamber of Commerce is urging WTO to make Trade Facilitation a Top Issue at Talks, *Traffic World*, November 19.

Reith, Peter The Hon. (1996) *Towards a Best Practice Australian Public Service: Discussion Paper*, AGPS, Canberra.

Revenue Canada (1993) *Targeting and Risk Analysis: A Customs 'Vision'*. Enforcement Directorate, Revenue Canada, Ottawa.

Roth, Jeffrey, Scholtz, John and Witte, Ann (1989) *Taxpayer Compliance* Vol.1. University of Philadelphia Press, Philadelphia.

Small Business Deregulation Taskforce (1996) *Time for Business*, Report of the Small Business Deregulation Task Force, AGPS, Canberra.

Shaver, James (1997) Speech to the Customs Reform and Modernisation Forum. World Customs Organization, Brussels.

Shaver, James (1998) Address to the Special Session of the United Nations General Assembly. World Customs Organization, Brussels

Shaver, James (1999) *Speech to the International Integrity Forum*. World Customs Organization, Brussels.

Shover, Neal, Clelland, Donald and Lynxwiler, John (1986) *Enforcement or Negotiation? Constructing a Regulatory Bureaucracy.* State University of New York Press, New York.

Singapore Customs (2002) *CED Information for Trade: Singapore Customs and Tradenet.* Singapore Customs & Excise Department, Singapore, http://www.gov.sg/ customs/trade/trde6_1.html.

Smith, G (1980) Something to Declare. George G. Harrap Co., London.

Somlyay, Alex (1996) Keynote Address to the 1996 Public Sector Accounting Convention. Canberra.

South African Revenue Service (2002a) *Siyakha Brochure*. South African Revenue Service, Pretoria.

South African Revenue Service (2002b) *Accredited Client Scheme: SARS – Leaflet on the Accredited Client Scheme.* South African Revenue Service, Pretoria.

South African Revenue Service (2002c) South African Revenue Service: E-Commerce/EDI Benefits Document. South African Revenue Service, Pretoria.

South African Revenue Service (2002d) *Manifest Acquittal System*. South African Revenue Service, Pretoria.

South African Revenue Service (2002e) *Discussion Paper on the Further Development of Risk Management in SARS*, Unpublished, South African Revenue Service, Pretoria.

Sparrow, Malcolm (1994) Imposing Duties: Government's Changing Approach to Compliance. Praeger, Westport, Connecticut.

Sparrow, Malcolm (2000) *The Regulatory Craft*, Brookings Institution Press, Washington DC.

Standards Australia (1995) AS/NZS 4360:1995 Australian/New Zealand Standard: Risk Management. Standards Association of Australia, Strathfield.

Standards Australia (1999a) *AS/NZS 4360:1999 Australian/New Zealand Standard: Risk Management.* Standards Association of Australia, Strathfield.

Standards Australia (1999b) HB 142:1999 A Basic Introduction to Managing Risk using the Australian and New Zealand Risk Management Standard AS/NZS 4360:1999. Standards Association of Australia, Strathfield.

Standards Australia (1999c) *HB 143:1999 Guidelines for Managing Risk in the Australian and New Zealand Public Sector*. Standards Association of Australia, Strathfield.

Standards Council of Canada (1998) *CAN/CSA-Q850-97 Risk Management: Guideline for Decision Makers*. Standards Council of Canada, Ottawa.

Trade & Industry Bureau (1999) *FCR (1999-2000) 35 Item for Finance Committee: Capital Works Reserve Fund, Head 710 – Computerisation, Government Secretariat: Trade and Industry Bureau, Subhead A008XV Electronic Data Interchange System,* Legislative Council, Hong Kong, http://www.legco.gov.hk/yr98-99/english/fc/fc/papers/fc090735.htm.

Tsang, John C (2000) *Launching of the Integrity Programme in the Customs and Excise Department*. Presentation by John C Tsang Commissioner of Customs and Excise in the 'Leading with a Vision' Workshop on Thursday, 30 March 2000. Department of Customs & Excise, Hong Kong.

Tsang, Sonia & Poon, Patty (2002) 'DHL to Buy 30% of Cathay's Cargo Unit, Expand Fleet', *North Asia News*, 21 October.

U.S. Consulate General (1997) U.S.-Hong Kong Agreed Minute of Discussions on Strategic Commodities Trade Controls. News Release, 6 October 1997, U.S. Consulate General, Hong Kong.

U.S. Customs Service (1994) *People, Processes, Partnerships: A Report on the Customs Service for the 21st Century.* U.S. Department of Treasury, Washington DC.

U.S. Customs Service (1996) *Bonded Warehouse Manual for Proprietors, Importers, Customs Officers*. Department of the Treasury, U.S. Customs Service, Washington DC.

U.S. Customs Service (1999) *Trade Compliance Risk Management Process*, U.S. Customs Service, Washington DC.

U.S. Customs Service (2002a) *Fact Sheet: The '2 Percent Myth', Automated System, Technology, People Screen Cargo for Contraband.* Department of the Treasury, U.S. Customs Service, Washington DC.

U.S. Customs Service (2002b) *Customs Informed Compliance Strategy*. Department of the Treasury, U.S. Customs Service, Washington DC. http://www.customs.ustreas.gov/imp-exp1/comply/ma-incmp.htm.

U.S. Customs Service (2002c) *Customs Modernization: Automated Commercial Environment*. U.S. Customs Service, Washington DC. http://www.customs.ustreas.gov/modernization/modernization.htm.

U.S. House Ways & Means Committee (1993) *The House Ways & Means Committee Report, North American Free Trade Agreement Implementation Act.* U.S. House of Representatives, Washington DC.

U.S. House Ways & Means Committee (1998) *Oversight of the U.S. Customs Service: Hearing before the Subcommittee on Trade.* U.S. House of Representatives, Washington DC.

U.S. Senate Finance Committee (1993) Senate Finance Committee Report, North American Free Trade Agreement Implementation Act. U.S. Senate, Washington DC.

Vassarotti, Colin (1993) *Risk Management: A Customs Perspective*. Australian Customs Service, Canberra.

Vassarotti, Colin (1997) 'Managing Risk in the Australian Public Service: Practical and Political Realities', *Canberra Bulletin of Public Administration*, No. 84 (May): pp.79-84.

Viljoen, John (1994) *Strategic Management: Planning and Implementing Successful Corporate Strategies* Second Edition. Longman, Melbourne.

Viljoen & Dann (2000) *Strategic Management* Third Edition. Pearson Education Australia, Frenchs Forest.

Waring, Alan & Glendon, Ian (1998) *Managing Risk: Critical Issues for Survival and Success into the 21st Century*. Thompson Business Press, ISBN: 1-86152-167-7.

Weise, George J (1998) 'Statement of the Hon. George J. Weise, Commissioner, U.S. Customs Service' in U.S. House Ways & Means Committee *Oversight of the U.S. Customs Service: Hearing before the Subcommittee on Trade*. U.S. House of Representatives, Washington DC.

Widdowson, David (1998) 'Managing Compliance: More Carrot, Less Stick' pp. 99-104 in: Chris Evans & Abe Greenbaum (eds) *Tax Administration: Facing the Challenges of the Future*. Prospect, Sydney.

Widdowson, David (1999) *Study of the Feasibility of Implementing an Open Bond System in Hong Kong: Working Paper*. Crow Maunsell, Hong Kong.

Widdowson, David (2000a) Consultancy Study on Customs Cargo Clearance Requirements and Services: Local Requirements and Services. Crow Maunsell, Hong Kong.

Widdowson, David (2000b) Consultancy Study on Customs Cargo Clearance Requirements and Services: Interim Reviews. Crow Maunsell, Hong Kong.

Widdowson, David (2000c) Consultancy Study on Customs Cargo Clearance Requirements and Services: Recommended Improvements. Crow Maunsell, Hong Kong.

Widdowson, David (2001a) Study to Strengthen Hong Kong's Role as the Preferred International and Regional Transportation and Logistics Hub: Working Paper No. 3
Cyber and Regulatory Infrastructure. Aecom Facilities, Chicago.

Widdowson, David (2001b) Feasibility Study for the Electronic Data Interchange System for Road Manifests: Working Paper No.1. Crow Maunsell, Hong Kong.

Widdowson, David (2001c) Feasibility Study for the Electronic Data Interchange System for Road Manifests: Business Activity Model. Crow Maunsell, Hong Kong.

Widdowson, David (2002) An Introduction to Managing Risk in the Customs Context. Surgam Management Group, Canberra.

Wong, Raymond Hung-chiu (2002) Year-end Statement for 2001 by Mr Raymond Wong Hung-chiu, JP Commissioner of Customs and Excise on 1 February 2002. Customs and Excise Department, Hong Kong, http://www.info.gov.hk/ customs/eng/new/speech/01022002_yearend_e.html.

Wong, Raymond Hung-chiu (2003) Year-end Statement for 2002 by Mr Raymond Wong Hung-chiu, JP Commissioner of Customs and Excise on 29 January 2003. Customs and Excise Department, Hong Kong, http://www.info.gov.hk/customs/eng/ new/speech/29012003_statement_by_commissioner_e.html.

World Customs Organization (1997) 'Risk Assessment' WCO News, Official Journal of the World Customs Organization, Issue 31: pp.5-6.

World Customs Organization (1999) International Convention on the Simplification and Harmonization of Customs Procedures (as amended). Customs Co-operation Council (World Customs Organization), Brussels.

World Customs Organization (2002a) *Kyoto 2000: The International Convention on the Simplification and Harmonization of Customs procedures (Revised) - Pathway to Efficiency and Effectiveness in the Customs Environment.* World Customs Organization, Brussels, http://www.wcoomd.org/ie/En/Topics_Issues/topics_issues. html.

World Customs Organization (2002b) 1952-2002 World Customs Organization. World Customs Organization, Brussels.

World Customs Organization (2002c) Year 2002 and Beyond: Implementing the Revised WCO Kyoto Convention. World Customs Organization, Brussels.

World Customs Organization (2002d) *Resolution of the Customs Co-operation Council on Security and Facilitation of the International Trade Supply Chain.* World Customs Organization, Brussels.

World Customs Organization (2002e) *Fact Sheet: World Customs Organization*. World Customs Organization, Brussels.

World Customs Organization (2002f) *161 Member Countries*. World Customs Organization, Brussels. http://www.wcoomd.org/ie/En/AboutUs/aboutus.html.

World Customs Organization (2002g) Background Notes to the Joint Press Statement by the Commissioner for the South African Revenue Service (SARS), Mr Pravin Gordhan and the Secretary-General of the World Customs Organization (WCO), Mr Michel Danet, 27 March 2002. World Customs Organisation, Brussels. World Trade Organization (1996) *Singapore Ministerial Declaration*. World Trade Organization, Geneva.

World Trade Organization (1998) Statement by H. E. Mr. R. Saborío Soto, Chairman of the Council for Trade in Goods under Item i (Trade Facilitation). World Trade Organization, Geneva.

World Trade Organization (2002) *Trade Facilitation: Overview - Overview of Trade Facilitation Work*. World Trade Organization, www.wto.org/english/tratop_e/tradfa_e/tradfac2_e.htm.

Wu Richard (2000) 'Electronic Transactions Ordinance – Building a Legal Framework for E-Commerce in Hong Kong', *The Journal of Information, Law and Technology,* Issue No.1, http://www.law.warwick.ac.uk/jilt/00-1/wu.html.

Yin, Robert (1994) *Case Study Research: Design and Methods*, Second Edition. Sage Publications, Thousand Oaks.

Zhang, Yan (2001) *The New Economy: Moving Customs-Business Partnership and Trade Facilitation to the Next Level,* speech delivered to the APEC Customs Business Dialogue, 13 August, Shanghai.