

INVESTMENT CLIMATE IN PRACTICE

TRADE LOGISTICS

MANAGING RISK IN CUSTOMS LESSONS FROM THE NEW ZEALAND CUSTOMS SERVICE

The New Zealand Customs Service's risk management system enables it to manage large volumes of cargo crossing borders with limited resources. The system encompasses a culture of problem-solving and accountability for decisions, a standard methodology for identifying and assessing risk, and an intelligence function that applies this methodology. This note highlights the fundamental principles and processes guiding the system, offering lessons for governments reforming their trade logistics functions to meet global standards and security requirements.

In conducting their responsibilities for managing borders and collecting revenue, customs administrations operate in environments of uncertainty and change. It is not easy to predict, for example, how many people, craft,¹ and goods crossing a border will break the law or how they will do so—say, by entering a country illegally, smuggling drugs, or not paying tariffs. And it is not feasible to manually check every person, craft, and good that enters or leaves a country.

Instead, countries must develop methods that identify cross-border activities or transactions with the potential to pose risk. With their experience managing borders, customs administrations are uniquely positioned to conduct risk management—enabling them to make effective interventions in the supply chain without constraining legitimate trade. This note describes how risk management has become part of the culture of the New Zealand Customs Service, supported

by a standardized methodology and strong intelligence efforts.

DEFINING RISK MANAGEMENT IN CUSTOMS

A risk is the chance of something happening that will undermine objectives. Risk is measured in terms of likelihood (rare, unlikely, possible, likely, or almost certain) and consequences (insignificant, minor, moderate, major, or extreme).

Likelihood is calculated quantitatively or qualitatively, while consequences can be measured using a number of criteria. When assessing risks affecting customs, it is recommended that the following consequences be considered: economic costs, lives lost, lives damaged or severely affected, intangible social or environmental costs, and damage to a country's reputation.

REBECCA FOLEY
BRUCE NORTHWAY

Rebecca Foley is a Senior Policy Analyst in the International Relations unit of the New Zealand Customs Service's Policy Group.

Bruce Northway is a Chief Customs Officer in the Intelligence group of the New Zealand Customs Service. He also conducts risk management training for the New Zealand Customs Service and external parties.

This note is one in a series developed by the Trade Logistics team of the World Bank Group's Investment Climate Advisory Services. The series focuses on implementation aspects of recent trade reform initiatives and risk management issues. The Trade Logistics team advises governments in developing and transition economies on improving their import, export, and risk management systems and procedures to increase their potential for trade and investment.

Risk management is a logical, systematic method that identifies, analyzes, evaluates, treats, monitors, and communicates risks in a way that minimizes losses and maximizes opportunities. For the New Zealand Customs Service, risk management refers to the culture, processes, systems, and structures developed to manage potential risks and their adverse effects.

To manage risk, a customs administration must change how it thinks and acts. It must move away from traditional methods and adopt new ways of solving problems, including developing accountability for decisionmaking (Box 1). Effective risk management increases accountability in decision-making and provides an audit trail, helping to ensure that decisions mesh with relevant legal requirements and government policies. It also ensures that the behavior of customs officers is consistent with standards for public service.

New Zealand operated an inspection-based customs function for more than 150 years before initiating a modernization program in the 1990s. The program had important implications for risk management. Risk management became an integral part of customs practice and was slowly integrated with the administration's culture—meaning that all staff bear responsibility for it.

BOX 1: A HOLISTIC APPROACH TO RISK MANAGEMENT

A robust approach to risk management requires four types of thinking to shape needed processes and tools:

- ❑ **Rigorous thinking**—ensuring that everyday decisionmaking is guided by logical, systematic processes.
- ❑ **Forward thinking**—managing proactively rather than reactively. Risk management is about identifying and being prepared for what can happen.
- ❑ **Responsible thinking**—taking action to manage risk, avoid or reduce adverse exposure, and maximize the potential of identified opportunities.
- ❑ **Balanced thinking**—striking a balance between the costs and benefits of managing risk. A risk-free environment is impossible (if not uneconomic) to achieve, so the administration needs to decide what level of risk is acceptable.

THE EVOLUTION OF NEW ZEALAND'S CUSTOMS SYSTEM

Between its inception in 1840 and the 1970s, the New Zealand customs administration relied on a paper-based border management system that required 100 percent compliance: everything that entered the country was examined. Goods were processed in days, not hours, and developing competent customs officers took years of training.

As New Zealand's economy began diversifying in the 1970s, the customs administration had to deal with a growing number of trade partners and a wider range of imports. The decade also saw the growth of containerized shipping and the beginning of cargo transported by air.

To avoid harming the increased and diversified trade flows, the customs administration had to process imports more quickly. At the time the administration needed 10 days to process imports, requiring reference checks against at least 60 documents. The changes in trade patterns, combined with the new ability to automate, led to changes in customs clearance—moving the system for processing imports away from physical inspection toward risk management.

In 1981 the customs administration introduced its first computer system, CASPER (Customs and Statistics Processing of Entries and Retrieval), which automated trade processing and provided a technical platform for randomly sampling imports for compliance and for running national alerts on high-risk goods. CASPER was operational for 16 years, but by the early 1990s the system was nearing the end of its useful life. It was costly to maintain and operate and very difficult to modify. It also limited the customs administration's ability to adapt to changing market and economic conditions.

CASPER's limited functionality—combined with pressures facing the New Zealand Customs Service—drove the need for change. Pressures included minimizing operating costs due to a decline in government funding, maintaining the quality of border protection, minimizing the risk to revenue collection, increasing assistance to the business community, and supporting New Zealand's economic growth.

The need for change led to the Customs Modernization (CusMod) program of the 1990s.

CusMod reflected a transformation in how the New Zealand Customs Service conducted its business and in the work performed by customs officials. A two-year project, CusMod involved more than just developing new information systems. It took a holistic approach to protecting borders. The customs administration reviewed its entire operations, including its strategies, the types of staff required, processes for improvements, and the required technology.

CusMod enabled New Zealand Customs to integrate goods, craft, passengers, and intelligence systems and develop better ways of identifying and mitigating risks. Major operational improvements resulted, such as much faster goods handling and increased flexibility and responsiveness. Work processes were improved and information systems implemented that empowered staff to manage their work more effectively. In addition, risk management priorities were set at the national level, based on government priorities, leading to better targeting of the areas of greatest risk.

The changes reduced the impact of customs activities on legitimate trade and travel, resulting in more effective use of resources. Other benefits included increased enforcement effectiveness and revenue collection.

A STANDARD METHODOLOGY FOR MANAGING RISK

New Zealand’s government has adopted a standard methodology for identifying and assessing risk in all government entities. (The methodology is a joint standard with Australia, prepared by Standards Australia and Standards New Zealand and subjected to frequent reviews by both.) Having one standard ensures consistency in the government’s approach to risk management. The standard contains an extensive list of precise definitions for terminology to provide a common language for practitioners. Many businesses use the same standard.

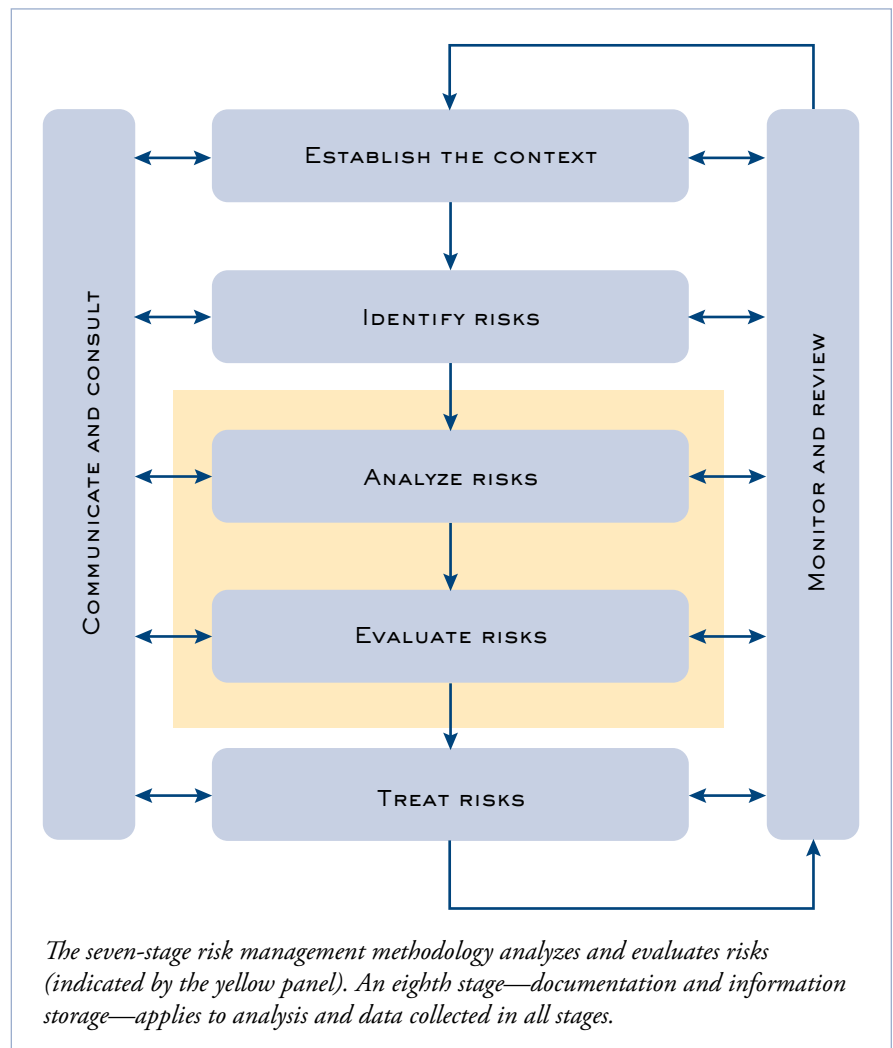
The standard provides a generic guide for establishing and implementing risk management. It is a cyclic, recurring methodology of seven well-defined steps that support better decisionmaking by providing insight into risks and their impacts (Figure 1). The standard also requires that organizations review their risks regularly.

The risk management methodology is flexible, adaptable, and takes into account changes in the operating environment, including in processes and legislation. It can be applied to any situation where an undesired or unexpected outcome could have a significant impact or where opportunities are identified. Applying the methodology informs decisionmakers of possible outcomes and enables them to control their impacts.

Establish the context

This stage defines the strategic, organizational, and risk management context, because any effort to manage customs or other risk must first establish what needs to be managed. For example, is it general arrival processes, specific border transactions, or

FIGURE 1: NEW ZEALAND’S RISK MANAGEMENT METHODOLOGY



The risk management methodology must address a range of issues at each stage.

internal processes? Determining what needs to be managed helps set the parameters of the context. The following questions can be used to establish context.

Internal environment

- What are the customs administration's goals and structure?
- If risk management is targeting a specific process or activity, what capabilities and resources are available to manage that process or activity?
- What criteria are used to assess risks and determine if intervention is needed?
- What are the scope and limits of risk management? Is it national, government-wide, or limited to the customs administration?

External environment

- What goods or people are involved?
- If imported goods are being rated for risk, could a domestic industry be affected by the ratings? Are the goods subject to specific laws, controls, or duties?
- What are the expectations of stakeholders such as the government, affected communities, traders, and other private sector groups?
- What is the social, political, and cultural situation?
- What is known about the country of origin and that country's trade environment?
- What other details are known about the process or activity?

Identify risks

This stage uses a systematic process to identify what, why, and how risks could arise, to form the basis for further analysis.

Key questions

- What are the sources of risks?
- What, why, and how would risks occur?
- What controls may detect or prevent risks?
- What accountability mechanisms and controls—internal and external—are in place?
- What and how much research is needed about specific risks? How reliable is the information?

Analyze risks

This stage identifies the potential likelihood of risks occurring and the consequences should they occur.

Likelihood and consequences must be assessed independently.

Key questions

- What is the potential likelihood of a risk occurring?
- What are the potential consequences of a risk if it occurs?

Once likelihood and consequences have been assessed, the overall level of risk can be determined.

Evaluate risks

This stage compares estimated risk levels with established criteria, enabling risks to be ranked to identify management priorities. Risks are then assessed to determine whether they are acceptable.

Treat risks

This stage accepts and monitors low-priority risks. For other risks, specific management recommendations or plans are developed and implemented. Treatment can include avoiding or reducing the likelihood and consequences of risks or transferring them to another party.

Monitor and review

This stage monitors and reviews the performance of the risk management system, including changes that might affect it and whether the original risks remain static.

Key questions

- Are assumptions about risks still valid?
- Are treatments for minimizing risks effective?
- Are the treatments cost-effective?
- Are management and accounting controls adequate?
- Do the treatments comply with legal requirements and government and organizational policies?
- How can the system be improved?

Communicate and consult

During this stage the customs administration communicates and consults with internal and external stakeholders as appropriate at each stage of the risk management process and for the process as a whole. This stage should be planned and ongoing, addressing not just the process but any issues that arise.

To these seven stages the New Zealand Customs Service adds **documentation and information**

storage. At all stages of the risk management process, the following must be documented and stored in a way that enables their retrieval: assumptions, methods used, data sources, logic and analysis, results, and decisions made and the reasoning behind them. At some point the process may be reviewed or audited—and to ensure accountability, documentation should indicate why decisions were made and actions were taken.

A key point of this risk management methodology is that it is a recurring process that can contribute to organizational improvement. With each cycle, risk criteria can be strengthened to progressively achieve better risk management.

PUTTING RISK MANAGEMENT INTO PRACTICE

The methodology described above is applied by the New Zealand Customs Service's intelligence group, which has about 60 staff members and is responsible for assessing, prioritizing, and recommending treatment for identified risks. The group's activities enable the proper functioning of the entire customs administration.

The intelligence group's role rests on a fundamental risk management principle: those who assess risk should not manage it. Independent risk assessment removes the potential for adjusting the level of risk to suit available resources, such as the number of staff available at a given time. Distinguishing these roles also allows operational decisions about priorities and resource allocations to be made on an informed basis independently of risk identification and assessment.

The intelligence group is responsible for producing impartial risk assessments about border transactions (people, craft, and goods) and associated entities that inform potential intervention strategies. These risk assessments are linked to operations through New Zealand's National Targeting Centre (NTC). The NTC applies the intelligence assessments at a tactical level to identify specific border transactions. Until the NTC was established in 2006, intelligence and operations were separate—resulting in a disconnect between the customs administration's strategy and operations.

The NTC has improved customs risk management because intelligence drives interventions at the border.

In addition, the NTC adds value because it is staffed by customs officers as well as officers from other border agencies, such as Immigration New Zealand and the Ministry of Agriculture and Forestry.

The NTC is responsible for:

- ❑ Identifying risky border transactions.
- ❑ Directing activities related to passenger, trade, and shipping risks, and providing response briefings 24 hours a day, 7 days a week.
- ❑ Improving operational capacity to respond rapidly and efficiently to a range of border threats.
- ❑ Managing the advance information received, such as advance passenger information, import and export entries, freight manifests, and craft movements.
- ❑ Working with other agencies domestically and internationally.

New Zealand is developing the NTC's functions so that it supports all government activities to target border risks and links more closely with other international intelligence centers so that they can work together to identify international border risks.

LESSONS

The New Zealand Customs Service's experience with implementing risk management offers key lessons for reformers elsewhere:

- ❑ Risk management is an effective, efficient way for customs administrations to deal with large trade volumes when resources are limited and risks are constantly changing. Implementing risk management requires trust in a customs administration's processes. It also requires recognizing that it is impossible to be risk-free.
- ❑ Risk management advances trade security and facilitation because it enables a customs administration to focus on high-risk trade.
- ❑ Risk management is not just about having good processes. It is a way of thinking that moves a customs administration toward proactive—rather than reactive—border management.

Risk management advances trade security and facilitation by enabling customs to focus on high-risk trade.

- ❑ Risk management in customs, including intelligence and operations, must rest on modern legislation. Legislation should enable information collection and sharing, including internationally where appropriate. It also should provide a legal basis for operations. If needed, legislation should be updated to reflect changing risk management processes.
- ❑ Risk management should be viewed as a continually evolving process. Though the basic thinking underpinning risk management may remain the same, its cyclical nature allows constant improvement. This may mean tweaking estimated risk levels, introducing new technologies, or sharing more risk with other supply chain participants.
- ❑ Risk management is enhanced when customs administrations work with other domestic agencies involved in border protection. Working together can reduce the cost of implementing risk management processes and increases the amount of available information, improving understanding of the border environment. New Zealand's Joint Border Management System (JBMS) represents a partnership approach to managing border risk (Box 2).
- ❑ Management of customs risk cannot rely solely on domestic cooperation: it also benefits from an international component. Working across borders with other intelligence and enforcement agencies enhances risk management by improving information collection and enforcement options.
- ❑ A comprehensive approach to managing customs risks must marry risk management with intelligence and operations. Effective processes require well-trained staff, suitable systems, knowledge transfer between domestic agencies, and international collaboration. Risk management processes must also be subject to checks and balances.

BOX 2: THE JOINT BORDER MANAGEMENT SYSTEM—A NEW DEVELOPMENT IN RISK MANAGEMENT

Customs administrations operate in environments of uncertainty driven by domestic and external changes. Domestic drivers include the expectations of government, traders, and travelers for efficient, effective, seamless service delivery at the border. External drivers include the changing trade environment, including enhanced security requirements for cargo entering the United States and the need to meet global standards such as those developed by the World Customs Organization.

The New Zealand Customs Service has managed change by continually improving risk management processes. One important future development is implementation of a Joint Border Management System to replace the aged and limited systems run separately by Customs and the Ministry of Agriculture and Forestry. The JBMS will ultimately manage all flows of people, craft, and goods entering or leaving New Zealand. It will deliver a wide variety of services across border agencies, including customs, biosecurity, and immigration.

The JBMS will provide a fully integrated risk management framework that harnesses sophisticated data matching and profiling technologies to provide Customs and the Ministry of Agriculture and Forestry with more accurate risk assessments and smarter targeting—and, as a result, higher-quality outcomes from interventions.

The system's technology will identify compliant passengers, craft, and goods, allowing them to move quickly across borders. It will make border crossings more efficient while protecting New Zealand's welfare and reputation. In short, the JBMS will enhance border risk management by incorporating a comprehensive risk management model that protects New Zealand from the risks arising from international travel and trade.

- ❑ Risk management does not require expensive computer systems. As long as the flow of high-quality information is assured, high-quality decisions can be made about risk assessment. Computer systems may expedite this process, but they are not mandatory.
- ❑ If a customs administration is looking to sequence reforms for better risk management, the key is to start by gathering information. To establish the context, data are needed on what has been done in the past and what the results have been. The second step is to introduce an intelligence unit to use the information, and a third is to link intelligence assessments to the front line of operations. Then information from the front line feeds back into intelligence, enabling a cyclical process.

CONCLUSION

The New Zealand Customs Service’s standardized risk management methodology has enabled it to move away from trying to ensure 100 percent border compliance. Today customs targets 3 percent of arriving passengers and 2 percent of arriving goods for intervention. Meanwhile, 100 percent of marine craft (about 6,500 a year) are boarded on arrival, and 3 percent are selected for secondary search activity for risk management purposes.

The customs administration arrives at the targeting figures for passengers and goods by constantly testing and refining the risk management process—including intelligence—and by assessing available resources. The cyclical nature of the risk management framework allows the administration to test the accuracy of its targeting figures, including through random inspections, to ensure that it is protecting New Zealand’s borders and revenue.

A customs administration generates numerous benefits by adopting risk management, including the increased protection and efficiency of processes and staff. Customs officers are not required to conduct ineffective inspections—their work has a purpose and a better possibility of achieving positive results, raising job satisfaction. Fewer assets are required, including staff, which lowers costs. Finally, risk management processes and systems enable a customs administration to quickly adjust to changes in the work environment (including employment trends) and legislation. *For more information, contact Uma Subramanian, Global Product Leader, Trade Logistics (usubramanian@worldbank.org).*

ENDNOTE

- ¹ Craft refers to ships or aircraft carrying goods into or out of New Zealand, as defined by the Customs and Excise Act 1996. Vehicles are considered goods instead of craft because, as an island, New Zealand cannot be entered by car, truck, or bus.

IN PRACTICE

The *Investment Climate IN PRACTICE* note series is published by the Investment Climate Advisory Services of the World Bank Group. It discusses practical considerations and approaches for implementing reforms that aim to improve the business environment. The findings, interpretations, and conclusions included in this note are those of the authors and do not necessarily reflect the views of the Executive Directors of the World Bank or the governments they represent.

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