TECHNICAL

NOTES & MANUALS

Developing a Risk-Based Compliance Improvement Plan for Customs Administrations

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This technical note addresses the following questions:

- What does a compliance improvement plan (CIP) based on an integrated risk-management (IRM) approach mean, and what does it imply for a customs administration?
- What benefits derive from the implementation of a CIP?
- What are the essential components of a CIP based on an IRM approach?
- Step by step, how to start developing a CIP?
- What other critical factors must be considered when developing a CIP?

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Contents

ABBREVIATIONS

AEO	authorized economic operator
CIF	cost, insurance, and freight
CIP	compliance improvement plan
GRI	global risk index
HS code	Harmonized System code[1]
IRM	integrated risk management
IT	information technology
PCA	post-clearance audit
RMC	risk management committee
TIN	taxpayer identification number
TTP	trusted trader program
VAT	value-added tax
WCO	World Customs Organization

[1] The HS is a multipurpose international product nomenclature developed by the World Customs Organization (WCO). The HS contributes to the harmonization of customs and trade procedures and the nondocumentary trade data interchange in connection with such procedures. It is also extensively used by governments, international organizations, and the private sector for many other purposes such as internal taxes, trade policies, monitoring of controlled goods, rules of origin, freight tariffs, transport statistics, price monitoring, quota controls, compilation of national accounts, and economic research and analysis. For more information, you may consult https://www.wcoomd.org/en/topics/nomenclature/overview/what-is-the-harmonized-system.aspx.

I. Introduction

This technical note aims to provide guidance to customs administrations' senior managers and technical staff on how to develop a compliance improvement plan (CIP) based on an integrated risk-management (IRM) approach, which can help them fulfill their core mandates and strategic objectives.

Traditionally, customs administrations have sought to improve compliance mainly by strengthening their enforcement actions. In many cases, such actions are based on urgency or on the need to deliver results, particularly on increasing revenue but without proper planning. A CIP allows customs administrations to address noncompliance with an institutional and long-term strategic view. A properly designed CIP helps a customs administration improve its institutional image, both internally and among the trade community. It will make it capable of facilitating compliance and detecting and sanctioning noncompliance in a timely manner by (1) identifying and implementing measures and procedures that enhance controls and facilitate compliance, (2) determining the most appropriate means and moment to implement them, and (3) identifying and adopting the legal powers needed to achieve them. Based on an IRM approach, a CIP enhances its effectiveness, because it allows the institution to implement long-term solutions to induce voluntary compliance.

IRM is much more than defining and applying risk criteria for the cargo selectivity system[1] or for case identification for post-clearance audits (PCAs). It involves a change in the institution's mindset—in the way customs administrations traditionally operate—by introducing a crosscutting strategic vision on optimal data management, adopting technologies to strengthen processes and reduce officials' discretional decision making, assessing the staff's technical skills, and implementing the regulatory changes needed. IRM enables customs administrations to be better prepared to identify and respond to the most significant risks through a series of actions aimed at identifying, prioritizing, and correcting their underlying causes, with a view of improving voluntary compliance across the trade community. In addition, it helps them adapt faster to the ever-changing environment in which they operate. Introducing an IRM approach into the customs administration's governance and strategic framework is the foundation to improve compliance.[2]

Customs administrations often limit the scope and effectiveness of their risk-management endeavors by failing to identify and address risks arising prior, during, and after the goods are cleared and released. In many cases, they do not assess the outcome and effectiveness of their control measures or to what degree they have modified the behavior of noncompliant operators to achieve greater voluntary compliance. Customs cannot improve voluntary compliance simply by applying a risk analysis on a transaction-by-transaction basis. By adopting a CIP based on an IRM approach, customs administrations can address risks holistically. Such an approach allows the development of a dynamic, iterative, and comprehensive vision to manage and improve compliance by (1) segmenting operators according to the total value of their transactions and risk levels; (2) identifying the root causes of risks or potential risks at the institutional level (institutional risks) that may lead to the materialization of risks at the operational level (compliance risks), through the assessment of core customs processes or work streams; and (3) defining and implementing tailored treatment measures to mitigate risks under each segment of operators and address vulnerabilities identified within the core processes.

1 Commonly, a cargo selectivity system is a part of the risk management system, which determines if a shipment must be submitted to an examination (documentary, nonintrusive, or physical) or released.

2 For more details on IRM, see Pérez Azcárraga and others (2022).

The segmentation of operators, identification of risks within the core processes, and definition of the most appropriate treatment to mitigate risks go hand in hand and complement each other, as shown further in this note.

Customs administrations can improve voluntary compliance by implementing CIPs based on an IRM approach as leading tax administrations have successfully adopted compliance risk-management (CRM) practices.[3] Even when integrated within a revenue administration, customs administrations should develop their own CIPs to address risks arising in foreign trade transactions, including nonrevenue-related risks.

[3] The core components and principles of IRM are similar to those of CRM, adopted and practiced by leading tax administrations. For more details on CRM, see Betts (2022).

II. Key Foundations to Improve Voluntary Compliance

This section explains, in general terms: (1) why customs compliance is relevant, (2) why an IRM approach should be incorporated into a customs administration's governance and strategic vision and what are its main principles, (3) what a CIP based on an IRM approach means and entails, and (4) what are some of the main benefits of implementing a CIP based on an IRM approach. These concepts are further developed and detailed in the subsequent sections of this note.

Why Is Customs Compliance Relevant?

Customs compliance is the degree to which foreign trade operators meet their obligations, whether voluntarily or through different treatment measures. Customs administrations play an important role in tax collection, national security, and trade facilitation, whereas they generate foreign trade statistics and contribute to their country's business environment and economic competitiveness. To fulfill their mandates, customs administrations must seek to increase traders' compliance levels, meaning that they must deploy all the means and measures at their disposal to facilitate voluntary compliance and strengthen the effectiveness of their enforcement efforts, including by the application of appropriate sanctions to bring international trade operators into voluntary compliance.

High levels of compliance are directly linked to levels of public trust in the customs administration and its capacities to enforce the law. In general, most foreign trade operators want and intend to comply, and they will do so if they are provided with the information and means they need to fully comply. In addition, they will choose to comply over not complying if they perceive that those who do not comply are duly identified and sanctioned, and a level playing field has been set for all operators. Furthermore, a constructive relationship with operators will help them and the customs administration in improving compliance.

Poor governance and weak enforcement contribute to noncompliance. Circumvention of customs regulations does not always arise from intentional wrongdoing by operators. Customs administrations' weaknesses in governance, complexity of the law and its regulations, lack of means to simplify compliance, and poor administration and enforcement capacities frequently open the door for noncompliance.

By facilitating voluntary compliance, customs administrations optimize their resources, and operators are attracted to comply. Access to clear and easy-to-understand laws and regulations, simplified and less costly procedures (including digitalized/automated procedures), trader assistance services, and special programs for compliant operators induce voluntary compliance. These facilitative measures could be more resource effective than numerous control measures. Therefore, increasing voluntary compliance should be seen as an institutional goal and be incorporated into the customs administration's governance and strategic vision.

Why Is It Important to Adopt an IRM Approach as Part of a Customs Administration's Governance and Strategic Vision to Improve Compliance and What Are Its Main Principles?

IRM is a dynamic and iterative process that crosscuts the organization and should be a critical component of institutional policies. Although, in general, customs administrations include risk management as a key component of their strategic planning, in practice, many of them often make the mistake of seeing risk management as if it were a separate task in their daily work, as an activity that is not linked to their

strategic objectives, or as if it did not have an effect on them. This approach derives limited results, because it is not internalized as an institutional goal throughout the administration. IRM should be a key element of the customs administration's governance and management.

By adopting an IRM approach, customs administrations can address their challenges in a holistic manner. Such an approach requires a change in the mindset of customs administrations, and they should be willing to embark on a transformation of the way they operate. Furthermore, it requires them to acknowledge their limitations and weaknesses and to be eager to address their root causes. In many cases, this may involve new ways of managing information and data, new information technologies and communication systems, statutory and regulatory amendments, updated procedures, additional financial resources, modifications to the organizational structure, publication of more information, and the retraining or recruitment of qualified and specialized staff. The main purpose of an IRM approach is to help identify and address the most significant risks, assess their effect, prioritize them, and select the most appropriate measures to correct the root causes, with a view of improving voluntary compliance among foreign trade operators. Box 1 shows the main principles to be considered when adopting an IRM approach.

BOX 1. Main Principles to Be Considered When Adopting an IRM Approach

- Involve the whole institution when developing and adopting an integrated risk-management (IRM) approach.
- Move from a corrective to preventive approach by implementing initiatives to (1) enhance means to authenticate the identity of traders; (2) identify and modify regulations that limit the customs administration's capacities to deter noncompliance; (3) eliminate paper forms and automate as many procedures as possible, with a view of securing usable and manageable data; (4) reduce or eliminate discretional decision making in all procedures; (5) develop or strengthen a single-window system and Authorized Economic Operator (AEO) program, which contribute to mitigating risks; and (6) expand electronic validations and cooperation initiatives and programs with the tax administration, other government agencies, and trade partners' customs administrations, accordingly.
- Analyze the tax-customs-trade context by identifying the main factors that may be allowing tax evasion, customs fraud, and smuggling, as well as the complexity to manage specific trade and tax policies, particularly exemptions, special regimes, and free trade zones.
- Understand that the definition and adoption of an IRM approach are a means to achieve institutional objectives, and as such, it must be clearly reflected in the institutional strategic plan to ensure that all initiatives and projects are aligned and contribute to the mitigation of risks.
- Promote a data-driven culture and management within the organization.
- Implement technologies that allow customs to (1) facilitate compliance; (2) expedite processes; (3) reduce discretional decision making; (4) strengthen cargo traceability, controls, and procedures; (5) improve information collection, flow, and management; (6) enhance and expand interoperability with third parties; and (7) implement monitoring and accountability of processes and procedures and the staff performing them.
- Measure, periodically, the effect of the risk mitigation strategy to learn if the collective efforts are contributing to modify the operators' behavior and improve voluntary compliance.

Source: Authors based on Pérez Azcárraga and others (2022).
Note: AEO = authorized economic operator; IRM = integrated risk management.

What Does a CIP Based on an IRM Approach Mean and Entail?

Many customs administrations apply a transactional risk-management approach, which is fundamental to facilitate legitimate trade, deter customs fraud, and expedite supply-chain trade flows. They analyze the main variables such as the origin, type and value of the goods, and the compliance records of the parties involved in each transaction. The output from this process is used to define a risk profile, which is, in turn, used to determine whether a shipment should be subject to a physical, document, or nonintrusive examination at the port of entry (known as red, yellow, and green channels).

However, a CIP takes a more holistic approach. Through a CIP, customs administrations not only focus their analysis on each transaction during the clearance process at the port of entry but seek to understand and group the total population of traders and their transactions to facilitate the selection of the most appropriate treatment measures. In addition, a CIP helps identify and analyze the main causes that may be leading to noncompliance[4] by assessing the current state of the core customs processes against benchmarks based on good practices. Despite the differences between the transactional and holistic approaches, they complement each other, and both are vital for customs administrations in their efforts to fulfill their strategic goals.

A CIP comprises five key components: (1) segmentation of operators by their size and risk level, (2) identification of the root causes of risks throughout the core customs processes that may lead to the materialization of compliance risks, (3) definition and implementation of treatments to mitigate risks under each segment of operators and to correct vulnerabilities identified within the core processes, (4) development of key performance indicators to determine to what extent the selected treatments and measures contribute to preventing or mitigating risks and improving compliance, and (5) establishment of clear and effective governance.[5]

What Are the Main Benefits of Developing a CIP Based on an IRM Approach?

A CIP based on an IRM approach derives significant institutional advantages. Among others, it allows a customs administration to accomplish the following:

1. **Modify the behavior of noncompliant operators.** Through the implementation of tailor-made treatments based on a holistic approach (that is, measures to educate operators, deter noncompliance, and enhanced enforcement measures), operators will be encouraged to comply voluntarily.
2. **Focus institutional efforts.** The customs administration's senior management will know which key areas are needing more attention and what needs to be done to address such needs.
3. **Optimize resources.** It makes it easier to better understand where and when to allocate resources (usually limited) to support the organization's strategic goals and objectives.
4. **Ensure that risk treatment strategies are applied based on their expected effect.** Becuase risks are identified and addressed holistically, priorities can be determined according to the effect and urgency of each identified risk.
5. **Implement a unified and institutional approach when addressing risks.** Treatments can be defined by an operator or clusters of operators and applied at different stages of the customs processes, seeking to maximize the customs administration's efforts to improve compliance. Actions can be coordinated to respond to risks, avoiding duplications and deviations.

[4] Typical noncompliance risks may involve (1) undervaluation, (2) misclassification of goods, (3) falsification of origin, (4) trafficking counterfeit and prohibited products, (5) smuggling; (6) abuse of exemption programs and special regimes, and (7) trade-based money laundering.

[5] A CIP can be developed in different ways, as shown in Brondolo and others (2022), which focuses on CIPs designed for tax administrations.

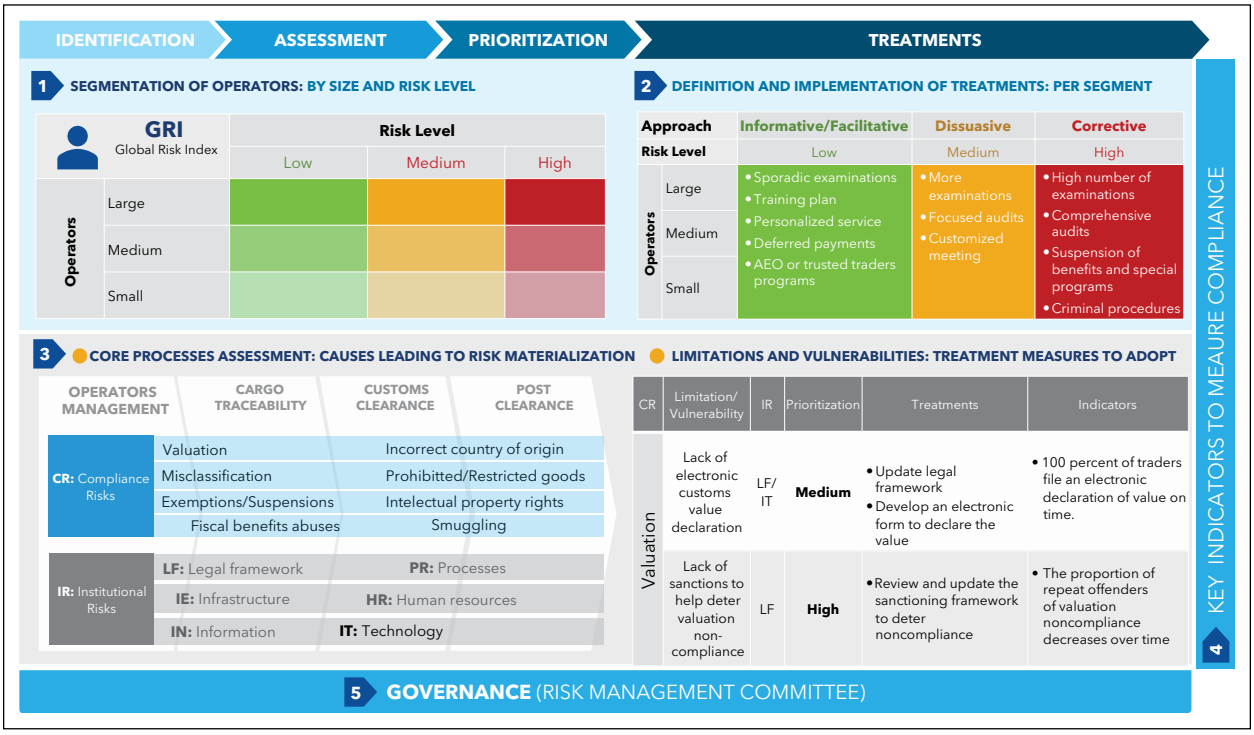
6. **Adapt to changing circumstances**. A CIP is not a static strategy but a dynamic one that is constantly updated as new risks arise and are identified. The institution can adapt and respond quicker to changing circumstances.
7. **Transform into a data-driven organization.** By doing so, the institution will be able to start implementing decision-making procedures based on reliable information at all levels (not on discretional decisions), as well as utilizing indicators to monitor compliance progress.
8. **Improve predictability, and enhance facilitation for the trade community.** Clear and traceable procedures are agreed, shared, and followed, and traders learn that compliance is easier and less costly than noncompliance.
9. **Improve the institutional image**. Because it operates according to predictable procedures and becomes more efficient and effective, the customs administration gains trust from its stakeholders and encourages voluntary compliance.

III. First Steps to Develop a CIP by Adopting an IRM Approach

This section explains, in general, the key elements of each of the five components of a CIP, based on an IRM approach, and how to develop them.

Based on an IRM approach, a CIP is a tool that allows the articulation of an institutional strategy to address challenges that hinder compliance improvement. Work should start by assembling a team of experts in operations, intelligence, enforcement, legal, information technology, and data analytics to extract and analyze data to understand the total population of traders and to define tailored treatments for each group, aiming to induce greater voluntary compliance. At the same time, the team must identify the main vulnerabilities within the core processes and define the most appropriate preventive, mitigating, and corrective measures to prevent the materialization of risks. Figure 1 summarizes the key components of a CIP, which are further explained in more detail.

Figure 1. Key Components of a CIP Based on an IRM Approach



Source: Authors.

Note: AEO = authorized economic operator; CR = compliance risks; GRI = global risk index; HR = human resources; IE = infrastructure; IN = information; IR = institutional risks; IT = information technology; LF = legal framework.

Understanding Foreign Trade Operators through Segmentation

Segmentation provides a comprehensive view of the operators' profiles according to their relative importance in terms of the volume of their transactions (size) and their level of risk (by developing a global risk index [GRI]).[6] The main objective of segmentation is to categorize the total population of traders according to their characteristics and behavior. Grouping them into homogeneous segments allows for a deeper level of understanding of their profile and facilitates the definition and prioritization of specific trade facilitation and enforcement measures (see also WCO 2012).

To this end, it is necessary to have a reliable database and quality data, which implies having access to key, clean, and timely data. This database must comprise the most relevant data elements, with data variables that describe the operators' import and export transactions, covering a period of time that includes a representative sample of noncompliant operators. If feasible, the database should be enriched with quality data collected from other government agencies and other nongovernment sources. An example of a simple database is shown in Annex 1.[7]

Step 1. Segmentation by size. The operators' size is determined based on the cost, insurance, and freight or free on board value of their transactions, in relation to the volume of the country's foreign trade, and is grouped into three segments (large, medium, and small) according to predefined thresholds (that is, for transactions made in the past two years: large: $500,000 ≤, medium: < $100,000 ≤ $500,000, and small: $0 ≤ $100,000). It is expected that the large operators' segment holds the lowest number of operators and the highest proportion of the country's total trade, whereas the small operators' segment holds the largest number of members and the lowest proportion of the country's total trade. Table 1 illustrates how the distribution of operators by size may look like.

Table 1. Distribution, by Size

Size	Number of Operators	Percentage of Total Operators	CIF/FOB Value	Percentage of Total CIF/FOB Value
Large	#	%	$	%
Medium	#	%	$	%
Small	#	%	$	%
Total	**#**	**100%**	**$**	**100%**

Source: Authors.

Note: CIF = cost, insurance, and freight; FOB = free on board.

Step 2. Development of a GRI. Once the segmentation is complete, it is necessary to develop a GRI to know the level of risk or compliance of each operator. To achieve this, it is necessary to define a set of indicators to identify potential or real irregularities committed by operators. Indicators can be grouped into different categories based on (1) risk variables related to their transactions, (2) customs records, (3) tax records, and (4) cross-checking data between the tax and customs administrations. Table 2 shows examples of indicators for each category.

6 The segmentation proposed in this note can be complemented, in some cases, with additional criteria generally used by tax administrations, as explained in by Brondolo and others (2022).

7 For more information, you may consult Pérez Azcárraga and others (2022).

Table 2. Examples of Indicators for Developing the GRI

Risk Variables Related to the Operator's Transactions	Customs Records	Operator's Tax Records	Cross-Checking Data between the Tax and Customs Administrations
High percentage of transactions conducted through high-risk (noncompliant) customs brokers. High percentage of transactions include risky HS codes. High percentage of transactions originate in countries considered of risk.	High proportion of serious violations detected in its transactions. Growing percentage of transactions involving exemptions. Growing percentage of transactions involving residual HS codes. Repeat offenders.	Taxpayer not filing tax returns. Irregularities found in audits conducted on the taxpayer's records. Taxpayer found manipulating transfer prices in transactions with foreign traders. Repeat offenders.	Importer files different VAT on imports than the VAT paid at customs. Importer files different values of imports and exports than the values declared to customs. Importer files different excise than the excise paid to customs. ISIC codes used by the importer do not match HS codes.

Source: Authors.
Note: HS code = Harmonized System code; ISIC = International Standard Industrial Classification of All Economic Activities; VAT = value-added tax.

Step 3. Conversion to binary variables. Each operator's historical record is assessed by converting the results of its indicators into binary variables. Thus, the results of its indicators are turned into a "0" when they show no risk ("NO") or into a "1" if they show risk ("YES"). For example, "Importer imports goods subject to value-added tax (VAT) and pays it at customs but files a larger amount of VAT on imports in tax returns"; if the importer falls under this scenario, the result of this indicator is turned into a "1," but if not, the result is turned into a "0."

Step 4. Assign weight to each indicator. Weight can be assigned by applying one of the following techniques: (1) distributing the weight equally among the total number of indicators, (2) assigning according to the experience of customs officials, (3) selecting the frequency of inconsistencies based on a subsample that only contains data from operators who have committed irregularities (weights are assigned according to the number of inconsistencies found in each indicator defined in Step 3), or (4) using a software that identifies the importance of indicators.

When the weighting technique "(3) Frequency of inconsistencies" is chosen, it is essential to create a subsample of noncompliant operators. This subsample must comprise only operators with irregularities in their records and the predefined indicators (such as those shown in Steps 2 and 3). Each of these operators gets a "1" under each indicator where an inconsistency has been detected; thus, each indicator accumulates several "1s" The number of "1s" accrued under each indicator is added to the number accrued under the other indicators to get a total amount of inconsistencies accrued by this universe of operators. Weights are calculated by dividing the number of "1s" accrued in each indicator by the total amount of inconsistencies. For example, in Table 3, Indicator 2 accrued a total of "1" equal to B. By adding A + B + (…) + Z, we will get a total ##. The weight of Indicator 1 is calculated as A/##, the weight of Indicator 2 is calculated as B/##, and so on. Then a tolerance threshold is defined, and those indicators with values over such threshold are selected for the calculation of the GRI.

Table 3. Indicators' Weights

TIN	Indicator 1	Indicator 2	(...)	Indicator N	Total
1	0 or 1	0 or 1	0 or 1	0 or 1	#
2	0 or 1	0 or 1	0 or 1	0 or 1	#
(...)	0 or 1	0 or 1	0 or 1	0 or 1	#
Z	0 or 1	0 or 1	0 or 1	0 or 1	#
Total	**A**	**B**	**C**	**Z**	**## = A + B + (...) + Z**
	A/##	*B/##*	*C/##*	*Z/##*	
Significant indicators	*If i/## > tolerance threshold, where i = A, B, C, (…), Z*				

Source: Authors.
Note: TIN = taxpayer identification number.

Step 5. GRI calculation. There are many ways to calculate the GRI. One of the simpler ways is using a linear equation (equation 1). In all cases, the GRI comprises the relevant indicators and their assigned weight. The formula must be applied to all operators to identify each operator's risk level. Depending on the maturity level of each customs administration regarding the management of high volumes of data and the analytical tools available, this could also be done by an analytical software or artificial intelligence.

$$GRI = \sum_{i=1}^{n} P_i R_i \quad \text{where} \quad \begin{aligned} P_i &= \textit{Weight assigned to indicator } i \\ R_i &= \textit{Answer obtained by the indicator} \\ n &= \textit{Total of indicators} \end{aligned} \qquad (1)$$

Step 6. Definition of risk thresholds (risk tolerance). Each customs administration faces different risk threats; what is high risk for one may be low risk for others. Therefore, each administration must define its thresholds according to the risks and challenges it faces to be able to focus its resources where they are needed the most. The distribution of the GRIs will help the customs administration's team of experts in setting the values for the low-, medium-, and high-risk bars. In addition, these bars can be raised or lowered to calibrate the effectiveness of treatment measures.

The expected outcome of the initial segmentation provides a general view of the population of operators. As shown in Table 4, analysts can view how operators are segregated by their level of risk (high, medium, and low) in each category according to their size (large, medium, and small). Also, the table shows what each group represents in terms of value and their proportion with respect to the total number of operators and transactions. This initial segmentation should help customs administrations develop better-targeted treatments and prioritize them.

Operators' segmentation can be easily adapted to the needs of the customs administration. The challenges and priorities of each customs administration may vary. So, based on the methodology for general segmentation explained earlier, it will be easy to adapt it to develop a CIP focused on importers trading certain sensitive goods (Harmonized System codes [HS codes]) or using special regimes. For example, a more in-depth analysis can be obtained by linking the goods considered most sensitive[8] with their operators, and depending on their GRI, it will be possible to define different treatments and expand

[8] Sensitive goods are those more susceptible to be misclassified. This tends to be more likely in tariff codes that (1) are subject to VAT and duty exemptions; (2) show greater value adjustments/reassessments; and (3) are subject to nontariff regulations or restrictions, including quotas, or those selected by experts or subject to laboratory analysis—for example, chemical products, electronics, medicines, steel, fuels, textiles, apparel, and footwear.

the analysis to identify links[9] between importers, customs brokers, suppliers, and so on that relate to the same HS code. Table 5 summarizes the results of the methodology.

Table 4. Examples of Segmentation Outcomes

Initial Segmentation and Assessment of Operators					
	Operators' GRI Level	No. of Operators	Total Operators (%)	Value of Transactions (USD)	Total Value of Transactions (%)
Large		#	%	$	%
	High	#	%	$	%
	Medium	#	%	$	%
	Low	#	%	$	%
Medium		#	%	$	%
	High	#	%	$	%
	Medium	#	%	$	%
	Low	#	%	$	%
Small		#	%	$	%
	High	#	%	$	%
	Medium	#	%	$	%
	Low	#	%	$	%
Total		#	%	$	%

The GRI assigned to each operator can be very useful as follows:

1. A new element to help fine-tune the cargo selectivity module for imports, exports, and transits.

2. A criterion of the operator's risk profile for the AEO certification process.

3. A key input for annual post-clearance audit planning.

4. A component when studying fraud plans and links among traders.

Segmentation can gradually become more sophisticated by incorporating other data that allow for a deeper analysis of each segment; for example: (1) repeat offenders; (2) number of operators who have not been subject to customs control; and (3) tax collection, disaggregated by type of tax.

	Operators' GRI Level	No. of Operators	Total Operators (%)	Value of Transactions (USD)	Total Value of Transactions (%)	VAT (USD)	Duty	Excise (USD)	Repeat Offenders	Operators Without Control
Large		#	%	$	%	$	$	$	#	#
	High	#	%	$	%	$	$	$	#	#
	Medium	#	%	$	%	$	$	$	#	#
	Low	#	%	$	%	$	$	$	#	#
Medium		#	%	$	%	$	$	$	#	#
	High	#	%	$	%	$	$	$	#	#
	Medium	#	%	$	%	$	$	$	#	#
	Low	#	%	$	%	$	$	$	#	#
Small		#	%	$	%	$	$	$	#	#
	High	#	%	$	%	$	$	$	#	#
	Medium	#	%	$	%	$	$	$	#	#
	Low	#	%	$	%	$	$	$	#	#
Total		#	%	$	%	$	$	$	#	#

Source: Authors based on Pérez Azcárraga and others (2022).

Note: AEO = authorized economic operator; GRI = global risk index; VAT = value-added tax.

[9] For a more detailed description on how to develop a sensitive goods linkage with high-risk operators, we recommend consulting Chapter 5, Appendix G, in Pérez Azcárraga and others (2022).

Table 5. Example of Segmentation for a Sensitive HS Code

Sensitive HS Tariff Code	Size Segmentation	GRI Level	No. of Importers	TIN	GRI
NNNN.NN1	Large	High	#	TIN 1	GRI
				TIN 2	GRI
		Medium	#	TIN 4	GRI
				TIN 5	GRI
		Low	#	TIN 7	GRI
				TIN 8	GRI
	Medium	High	#	TIN 10	GRI
				TIN 11	GRI
		Medium	#	TIN 13	GRI
				TIN 14	GRI
		Low	#	TIN 16	GRI
				TIN 17	GRI
	Small	High	#	TIN 19	GRI
				TIN 20	GRI
		Medium	#	TIN 22	GRI
				TIN 23	GRI
		Low	#	TIN 25	GRI
				TIN 26	GRI

Source: Pérez Azcárraga and others 2022.
Note: GRI = global risk index; HS code = Harmonized System code; TIN = taxpayer identification number.

A more detailed analysis can be achieved by linking compliance risks with the different segments of operators and their GRI. Once the compliance record of all operators has been determined through their GRI, samples of noncompliant importers and exporters for each compliance risk can be extracted and analyzed. This means that different segmentations can be developed (that is, by size, risk level, and type of compliance risk) based on the irregularities found for each of them in each of the compliance risks. Also, to complement these analyses, repeat offenders can be identified and prioritized by adding an indicator to measure their level of recurrence and segregate them from those who have modified their behavior—thus, to measure the effect of the treatment adopted under the CIP.

In addition, a GRI for each type of compliance risk can be designed. Each index would include different indicators and weights to adjust the operators' individual profiles for each type of fraud. Through this analysis, operators who are not showing offenses for a specific risk in their historical record, but who may be prone to commit it, can be identified. The next step would be to conduct examinations (during clearance or PCAs, as appropriate) of these operators' transactions, particularly of those whose shipments have not been submitted to examinations recently. Furthermore, a more in-depth measurement can be achieved by identifying the group of operators (1) who have been the target of a selected treatment (the group under treatment) and (2) who were not selected for such purposes but continued their operations under regular controls (the group under regular control). By comparing the behavior of both groups' members, the customs administration can measure the effect of the applied treatment.

Gradually, this methodology can become more sophisticated through the use of analytical software and technology, which would facilitate its use and updating. Once this methodology is understood and adopted, advanced tools can be acquired to facilitate data management and analysis. The development of key indicators and the GRI can be automated by incorporating statistical variables into their calculations (that is, mean, median, and standard deviation). Also, updating them would be a much simpler process if the new tools are connected to the customs system. In addition, because artificial intelligence

tools advance and are incorporated into customs risk-management systems, such tools can define new indicators and add new relevant data to the analytical process.

Definition of Treatment Measures for Each Segment of Operators

Customs administrations must determine (1) what treatments should be implemented, (2) how and when such treatments must be implemented, and (3) who should be responsible for their implementation and monitoring. Treatment measures should be tailored for each group of operators, which can range from providing greater training and services to the initiation of criminal proceedings. This exercise allows customs administrations to better focus their efforts and optimize their resources. Table 6 shows examples of treatments that can be applied.

Table 6. Examples of Treatment Measures

Operators	Educational Enforcement Low Risk	Corrective Enforcement Medium Risk	Full Enforcement High Risk	
Large Operators	**Regular Engagement** • Account management service • Advance rulings • Personalized information • Per-month filing (versus transactional) • Very limited examinations at the port of entry/exit • Innovative procedures, such as deferred payments and aggregated declarations	**Enhanced Engagement** • Briefings on technical criteria • Advance rulings • Elevated number of examinations at the port of entry/exit • Account monitoring • PCA (narrowed scope) • Negotiated payment arrangements, based on allowed correction thresholds • Seizures when exceeding preestablished thresholds	**Elevated Engagement** • Higher level of examinations at the port of entry/exit • PCA (comprehensive, some of limited scope) • Suspension of activities or benefits • International information exchange • Strengthened legal/judicial strategies/actions • Seizures when exceeding preestablished thresholds and in all cases of recurrent offenders	One-to-one interventions[1]
Medium Operators	**Periodic Engagement** • Targeted information products • Industry-sector specialist support • Pointed reminders • Seminars and webinars • Reduced examinations at the port of entry/exit • Innovative procedures, such as deferred payments and aggregated declarations	**Enhanced Engagement** • Elevated number of examinations at the port of entry/exit • Targeted outbound notices/ calls • Engagement with legal representatives • Negotiated payment arrangements based on allowed correction thresholds • Advance rulings • Seizures when exceeding preestablished thresholds • PCA (narrowed scope)	**Elevated Engagement** • Higher number of examinations at the port of entry/exit • PCA (specific issues, some comprehensive) • Suspension of activities • Seizures when exceeding preestablished thresholds and in all cases of recurrent offenders	One-to-several interventions[2]
Small Operators	**No Touch** • General information products • General reminders/alerts • General call center support–chatbot • Social media engagement • Reduced examinations at the port of entry/exit • Innovative procedures, such as deferred payments and simplified declarations	**Light Touch** • Increased number of examinations at the port of entry/exit • Advisory visits/meetings • Letters/notices • Automatic payment arrangements • Advance rulings • Seizures when exceeding preestablished thresholds	**Elevated Engagement** • Higher number of examinations at the port of entry/exit • Default assessments • Suspension of activities • PCA (specific issues, narrow scope) • Seizures when exceeding preestablished thresholds and in all cases of recurrent offenders	One-to-many interventions[3]

Source: Authors.

Note: PCA = post-clearance audit.

[1]One-to-one interventions are generally designed to apply to a single operator, require a high degree of customization, and may entail significant administrative costs.

[2]One-to-several interventions are generally designed to apply to an industry sector or larger groups of operators linked by the risk type or goods they trade.

[3]One-to-many interventions are generally designed once and applied to a large number of operators.

Identification and Assessment of Vulnerabilities Within the Core Customs Processes That May Trigger Compliance Risks

Risks are divided into two categories: institutional risks and compliance risks. As shown in Figure 1, institutional risks derive from structural deficiencies that impede the customs administration from performing its responsibilities effectively; they can be found in a weak legal framework, inefficient or ineffective processes, insufficient information, antiquated information technology (IT) systems, inadequate infrastructure, and limited human resources, leading to the materialization of risks. Compliance risks arise in regular customs operations (under- and overvaluation, misclassification, falsification of origin, smuggling) prior, during, and after goods are released, resulting in loss of revenue, reduction of economic competitiveness, and vulnerabilities in national security and the protection of society.

It is necessary to identify, within the core customs processes, the root causes leading to the materialization of compliance risks. The customs administration's team of experts must assess the state of the core processes. This includes the identification and analysis of vulnerabilities in processes prior, during, and after goods are cleared and released and, in the customs administration's capacities, to know where the goods are located, or should be located, at any given moment in time (end-to-end cargo traceability). To this end, they must focus the assessment on the following structural elements: (1) legal framework, (2) processes, (3) information, (4) IT systems, (5) infrastructure, and (6) human resources. The limitations and vulnerabilities found in these structural elements throughout the core processes are the customs administration's institutional risks, which normally have a crosscutting effect on the administration's capacity to fulfill its mandates and become the root causes of compliance risks.

The assessment of the root causes of risks must be conducted in a systematic way. This means that the evaluation must follow a methodology that will allow them to link each compliance risk to the limitations or vulnerabilities found in the institutional risks and to identify, for each of them: (1) probability of occurrence based on the number of time periods they have been present (that is, quarters, years), (2) effect (high, medium, and low) based on indicators and experts' opinion, (3) prioritization based on the expected effect and strategic need, (4) treatment, (5) period/completion, (6) responsible unit, and (7) indicators to measure the effectiveness of the treatment applied. Table 7 shows how all this information can be structured to facilitate the implementation of this methodology in an orderly manner, including for monitoring of the treatment measures. Annex 2 provides examples on how to apply it.

Table 7. Identification and Treatment of Root Causes

Limitation/ Vulnerability	Institutional Risk	Compliance Risk	Effect	Probability	Prioritization	Treatment	Responsible Unit	Expected Completion	Indicator
Limitation 1	Legal framework	Valuation	Effect 1 Effect 2	Medium	High	Measure 1 Measure 2	Legal	Date	Indicator 1 Indicator 2
Limitation 2	IT systems	Valuation	Effect 1	Low	Medium	Measure 1 Measure 2	IT	Date	Indicator 1 Indicator 2
Vulnerability 1	Processes	Valuation	Effect 1 Effect 2	High	High	Measure 1 Measure 2	PCA	Date	Indicator 1 Indicator 2

Source: Authors.

Note: IT = information technology; PCA = post-clearance audit.

Narrowing a CIP to Address a Specific Compliance Risk

A CIP may be developed and implemented to address a specific compliance risk. If the administration chooses to address a specific compliance risk, it would focus its analysis only on operators trading goods most sensitive to the selected compliance risk (that is, undervaluation, misclassification, circumvention of origin) and on those processes showing vulnerabilities that may allow the selected compliance risk to arise. For example, on undervaluation: (1) segmentation should focus on those operators trading goods identified as the most sensitive to undervaluation; and (2) the team of experts would identify those vulnerabilities within the core processes, allowing those sensitive goods to continue being undervalued.

As in a complete CIP, treatments will have to be applied, and indicators must be defined to monitor progress. Treatment measures must be defined for each segment of operators according to their risk levels and for the correction of each institutional risk allowing the identified vulnerabilities to surge. In the same manner, the team must determine how the selected treatments will be applied, by whom and when, and define the indicators to measure the level of progress in their implementation.

Implementing a suite of risk-specific CIPs may be the most practical way to increase compliance. In many cases, developing and implementing a holistic CIP may be a long-term and costly proposition. Customs administrations are always required to prioritize and optimize their limited resources. In such cases, opting for a sequential implementation of risk-specific CIPs—carefully ordered and designed in accordance with the administration's priorities and resources available—can be considered. Even in cases where the customs administration has no budgetary and time constraints, risk-specific CIPs could bring early results where they are needed the most. Annex 3 provides examples of templates to facilitate the development of a CIP focused on a specific compliance risk.

Measuring Progress in the Improvement of Compliance

The CIP must be evaluated to determine whether the set of treatment measures is achieving an improvement in the level of customs compliance. This would allow continuous monitoring of compliance improvement. In addition to measuring the level of progress in the execution of each treatment, indicators and statistical data must be generated to understand to what extent the selected treatments are helping to achieve the strategic objectives and improve voluntary compliance through time. Examples of these indicators at a strategic level include the evolution of the variation in collection with respect to the declared cost, insurance, and freight value. At a tactical level, some indicators would be those measuring the number and proportion of repeat offenders, the veracity of the information declared, the evolution in the number of operators by risk level and their participation in tax collections, and the values of foreign trade. The effect of improving compliance under a specific customs regime, industry sector, or HS code could also be measured. Finally, at the operational level, indicators can measure the effectiveness of examinations during customs clearance and PCAs, and the average reassessment values in both, in connection with each compliance risk. Box 2 presents examples of indicators.

BOX 2. Examples of Indicators to Evaluate Compliance Improvement Using an IRM Approach

Strategic level

- Variation (increase or decrease) of the CIF value in imports for domestic consumption relative to total customs collection (per tax–VAT, excise–or HS code).
- Level of customs collection relative to the variation (growth or reduction) of international trade.
- Trends in average release times by each mode of transport.
- Improvement in the foreign trade operator's perception of the customs administration.

Tactical level

- Proportion of the number of transactions and the value of imports/exports carried out by Authorized Economic Operators and Trusted Traders program participants.
- Evolution in the percentage of import/export declarations processed through each selectivity channel.
- Assertiveness rate of the selectivity criteria.
- Evolution in the assertiveness rate of the selectivity criteria.
- Assertiveness rate of post-clearance audits.
- Evolution in the assertiveness rate of post-clearance audits.
- Repeat offenders' performance (number of cases detected). It measures the increase or decrease in the number of repeat offenders through several periods of time.
- Repeat offenders' performance ($). It measures the increase or decrease in the value of offenses committed by repeat offenders through several periods of time.
- Repeat offenders who have improved behavior. It measures the number of operators who having been repeat offenders have modified their behavior and become compliant.
- Number of customs advance rulings issued, per type/coverage, and percentage with respect to all declarations.
- Proportion of non-tariff authorizations issued through the single-window system compared with the total authorizations issued through all means.

Indicators can be further refined by focusing on a specific type of compliance risk, tax, excise, or sensitive goods (HS codes).

Operational level

Compliance Risk	Number of Cases Detected	Periodical Variation Rate	Amount Reassessed	Periodical Variation Rate	Amount Collected	Periodical Variation Rate
1. Misclassification						
2. Valuation						
3. Undeclared goods						
4. Origin						
5. Abuse of special regimes or exemption programs						

Source: Authors.

Note: CIF = cost, insurance, and freight; HS code = Harmonized System code; VAT = value-added tax.

In addition, trust and community confidence in the customs system should be measured and analyzed. Surveys of foreign trade operators are used to better understand their perception about the customs administrations' performance and track changes over time. Customs administrations must target the trade community's relevant concerns and conduct activities toward improving their perceptions and voluntary compliance.

The Importance of Having Effective and Practical Governance in Place

Strong governance is fundamental for the design, implementation, and monitoring of CIPs. When organizations prioritize governance, they establish a framework that promotes sound evidence-based decision making. Solid governance facilitates the identification and correction of risks stemming from poor managerial practices and weaknesses leading to corruption. Without rigorous governance and follow-up mechanisms, CIPs get outdated and have little to no effect on fostering voluntary compliance.

In this sense, the implementation of a risk-management committee (RMC) is a critical component that enables effective governance.[10] The RMC contributes to better planning, execution, monitoring, and timely decision making for the continuous improvement of the CIP. Such arrangements help bring about greater integration and coordination among core customs administration functions that together determine compliance outcomes. The RMC must have a broad scope and embrace a much wider view of risk, conduct a wider range of functions to ensure proper implementation of the CIP, and seek a farther-reaching goal than just focusing on the analysis of the selectivity criteria, which is to facilitate compliance for those who are willing to comply with and modify the behavior of noncompliant operators.

The RMC should be institutionalized and comprised of a multidisciplinary team. A critical requirement to ensure the development and execution of an effective CIP will be the close involvement of senior managers and the full support of the Head of Customs, who must appoint a senior manager to lead and coordinate work. The RMC should be structured with clear terms of reference to ensure disciplined and effective governance. This includes well-defined roles and responsibilities of committee members, as well as meeting frequency, agendas, and protocols. All decisions taken must be documented and followed up. Annex 4 shows some suggested guidelines to be considered when creating an RMC and defining its role.

[10] Establishing a customs risk subcommittee is essential for customs administrations when they operate under an integrated revenue administration. This subcommittee should directly report to the RMC overseeing the corporate risk management strategy.

IV. Other Critical Elements to Consider When Developing a CIP

This section explains some of the additional elements that should be considered when developing and implementing a CIP based on an IRM approach. These factors may have critical influence on the success or failure of the CIP; thus, customs administrations should endeavor to address them.

Political support and deep involvement of senior managers. This is one of the main factors that can determine the success or failure in the development and implementation of a CIP. If senior managers do not know well the content and scope of the CIP and do not have trust in it, it will likely not achieve its goals. This group needs to be strongly involved from its inception to be able to lead both the implementation and monitoring of the plan, as well as to be prepared to take appropriate and timely actions for its continuous improvement. The CIP will help the customs administration's senior management team to distinguish the urgent from the strategic.

Change management strategy. The organization's culture drives the way employees think, behave, and make decisions. For customs decisions, plans, and actions to successfully move forward, they must overcome cultural barriers. A shift is required to move the customs workforce from approaches driven by enforcement actions to thinking on a broader risk-management approach as a basis/driver for improving voluntary compliance. Because a CIP based on an IRM approach implies a change in the institutional mindset, its development and implementation will surely face internal resistance. Therefore, it must be accompanied by a strategy to facilitate this change among all the ranks in the organization. In addition, to be properly informed, staff may need to be trained (that is, for the use of new technologies) and prepared to master their new responsibilities. Staff must understand how they are contributing to the success of the CIP and that this change will benefit them.

Communication strategy. Internally, the goal of a communication strategy must be that customs staff understand and embrace the CIP. Externally, key elements of the CIP should be published, and operators should perceive it as an important step forward that will facilitate trade and level the playing field for them. In both cases, the production of materials, including online information and appropriate guidelines, and the conduct of workshops and webinars will be necessary.

A holistic approach to trade facilitation encourages operators to comply. Many customs administrations narrow their compliance efforts to enforcement measures. Also, in many cases, their trade facilitation efforts are limited to the deployment of technologies at ports of entry to expedite clearance, which can be effective when properly applied, but clearance is only one step in the logistics of the supply chain. Trade facilitation measures should be designed and implemented holistically with a view to attract traders to comply. Operators must experience that complying is easier and less costly than not complying. From an operator's perspective, trade facilitation begins at registration and ends when the goods are released. Effective risk management helps reduce the number of examinations at clearance, single-window systems help reduce data filing requirements, and punctual traders' training and uniform procedures also induce compliance.

An updated customs law, clear regulations, and sanctioning framework according to the country's trade environment. It is essential to have an adequate and clear regulatory framework, aligned with international instruments and good practices, including those that allow fully automated procedures. Statutes and regulations should be designed to facilitate compliance and avoid misinterpretations and diverse criteria in their application. Operators must experience uniform processes and treatment at all ports of entry. Consulting the private sector and other government agencies when drafting new legal provisions will facilitate the legislative process. Likewise, it is indispensable to have a solid sanctioning framework to deter

noncompliance. The level of sanctions should be equivalent to the level of offenses committed, and they should increase the cost of noncompliance, particularly for repeat offenders, from the imposition of fines to the suspension or cancellation of operations and the initiation of criminal prosecutions. Operators must see that those who breach the rules are sanctioned accordingly. These are two common challenges in many customs administrations; if not resolved, they will hardly be able to improve compliance.

Invest heavily in developing or improving the PCA function. PCA is a very effective treatment measure to deter noncompliance when it is correctly applied. PCA can be used to educate traders. Moreover, it allows customs to delve deeper into issues that cannot be addressed during the clearance of goods, such as valuation or special regimes. Furthermore, PCA can be enriched when coupled with investigations, which can provide key information for the assertiveness and effectiveness of PCA actions. The lack of a solid audit program is perceived by operators as a weakness of the customs administration to the detriment of voluntary compliance. Therefore, PCA requires a strategic approach, based on the findings of the operators' segmentation (as shown in this note), with a view of modifying their behavior. Despite its relevance, PCA is still in a very early stage at many customs administrations, limiting its potential to help improve voluntary compliance.

A customs CIP, based on an IRM approach, is required even in situations where customs is integrated into a revenue administration. Customs administrations face different compliance risks than tax administrations. Despite having common objectives such as tax collection, their clients' obligations, and deadlines to comply, their business models are different, as are their processes and main stakeholders. Certainly, they can and should develop several joint CIPs to address common risks and adhere to a common framework for operator/taxpayer compliance improvement; however, customs must address its particular risks and issues of interest in accordance with its main functions and mandates.

Implementing effective interagency cooperation. Depending on the country's legal framework and structural organization, this cooperation may require different levels of formalization, including at the ministerial and agency levels. Cooperation between the tax and customs administrations should include (1) developing a taxpayer/operator risk profile, (2) implementing collaborative actions aimed at improving customs-revenue compliance, (3) avoiding abuse of the advantage granted by special regimes, and (4) identifying simulated exports to claim unsupported tax refunds or to launder money. Cooperation with other border control agencies should follow coordinated border management principles (https://www.wcoomd.org/en/topics/facilitation/activities-and-programmes/coordinated-border-management.aspx), including (1) development of data exchange mechanisms and a single-window system to enhance control and facilitate compliance with non-tariff regulations; (2) implementation of operational protocols to avoid duplicative inspections at the border; (3) IRM, to the extent possible; and (4) carry out joint or coordinated campaigns to encourage compliance.

Participation of the private sector. The private sector can provide relevant information when developing the CIP and support the design and delivery of training solutions. They are best placed to understand how each economic sector or business model works, who the main international producers and suppliers are, the costs of raw materials and freight, unit prices, intellectual property rights, and other aspects of their business, which can be very useful to identify atypical cases. Also, secure and compliant operators' programs, such as the Authorized Economic Operator program, help the customs administration in its efforts to segregate risks.

The concepts and guidelines proposed in this technical note have been considered and used by several customs administrations in their efforts to improve compliance by developing their own CIP. The depth and sophistication of their CIPs have depended on their access to timely and reliable data. Following the operators' segmentation methodology, several customs administrations are already targeting noncompliant operators successfully and applying the most appropriate treatment measures on them. Also,

taking into consideration their particular priorities and resources available, some of them are conducting in-depth reviews and analyses of their core processes, identifying the root causes of their vulnerabilities, and addressing them accordingly. Some of these reviews are comprehensive, whereas others are focused on a specific compliance risk. Furthermore, these customs administrations are strengthening their risk-management units and have created an RMC.

ANNEX 1. Example of Importer Database

1. Customs Information

TIN	Register Date	Total Import Value 20XX	Total VAT Paid 20XX	Total Excise 20XX	Total Duties 20XX	Total Import Value with Exemptions 20XX	Total Import Value with Trade Agreements 20XX	Total Import Value with Residual HS Code	Total Customs Declarations 20XX	Total Customs Declarations with Control 20XX	Total Customs Offenses 20XX

2. Revenue Authority Information

TIN	Taxpayer Size	VAT 20XX	Domestic Market Sales	Domestic Market Purchases 20XX	International Market Purchases 20XX	Profitability 20XX	Total Assets 20XX	Total Liability 20XX	Number of Tax Returns Not Submitted	Number of Audits	Number of Offenses

Relevant Considerations:

- The period should be at least one year.
- The information may consider a unique regime—that is, final importation; and process—that is, clearance process.
- Only one currency needs to be selected to convert the variables.
- The types of taxes could be disaggregated as a preference.
- Register date describes the first transaction day.
- A categorization by type of operators—that is, individual, corporation, and other documents authorized to operate—could be inserted.
- Aggregate information per year. If a database includes information covering two years, then two columns per variable need to be defined—that is, Total Import Value 20X1 and Total Import Value 20X2.

CATALOG DATABASES. Example: Sensitive goods

3. HS Code Information

- HS Code	- Number of Declarations with Control	- Number of Offenses

4. Importer vs. HS Code

- TIN	- HS Code	- Total Import Value

ANNEX 2. Examples of Templates to Facilitate the Identification of Vulnerabilities Within the Core Processes, Define Their Treatment, and Monitor Progress

Two examples are provided. Example 1 illustrates how to identify and address vulnerabilities and limitations within all the core processes, which are the root causes that allow for the materialization of different compliance risks. Example 2 shows how the same methodology can be applied to address vulnerabilities and limitations that allow for the materialization of specific compliance risks.

Example 1. Identification of vulnerabilities and the institutional risks from which they derive, the treatment measures that can be applied to correct them, and the indicators that can be used to monitor progress

For this example, the selected vulnerability is the insufficient and untimely transmission of sea manifest data, which derives from different institutional risks and results in different compliance risks. Step 1 is to identify vulnerabilities and risks and assessing effect (see Table A2.1).

Table A2.1. Step 1. Identifying Vulnerabilities and Risks and Assessing Effect

				Estimated Effect				
Process Code	Limitation or Vulnerability	Institutional Risk	Compliance Risk	Institutional Image	Security and Safety	Tax Collection	Trade Facilitation	Expected Effect
1.1.1	Insufficient and untimely sea manifest data	Legal framework	Contraband Origin Undervaluation	Medium	High	High	Medium	10
1.1.2	Insufficient and untimely sea manifest data	Procedures	Contraband Origin Undervaluation	Medium	High	High	Medium	10
1.1.3	Insufficient and untimely sea manifest data	IT system	Contraband Origin Undervaluation	Medium	High	High	Medium	10

Source: Authors.

Note: IT = information technology. This vulnerability derives from three different institutional risks, and each of them requires a different treatment. Also, compliance risks are replicated in every line, because they derive from the same vulnerability. In addition, effect is categorized into three different levels: low (accounts 1 point), medium (accounts 2 points), and high (accounts 3 points) on each of the strategic objectives of the customs administration (institutional strength, controls, tax collection, and trade facilitation). This is the reason the estimated total effect of these risks is 10 points (2+3+3+2=10). Of course, vulnerabilities can be detailed much more (that is, the data on the foreign exporter is not a mandatory field), and the scoring system to measure effect can be adapted (that is, 1 to 5, instead of low, medium, and high).

Step 2 is to determine the probability of occurrence and prioritize treatment (see Table A2.2).

Table A2.2. Step 2. Probability of Occurrence and Prioritization for Treatment

Process Code	Limitation or Vulnerability	Institutional Risk	Expected Effect	Occurrence				Probability	Prioritization	
				2020	2021	2022	2023			
1.1.1	Insufficient and untimely sea manifest data	Legal framework	10	Y	Y	Y	Y	4	40	High
1.1.2		Procedures	10	Y	Y	Y	Y	4	40	High
1.1.3		IT system	10	Y	Y	Y	Y	4	40	High

Source: Authors.

Note: IT = information technology. Four one-year periods (2020–23) have been selected to find out for how long these vulnerabilities have been present. The group of experts may choose any number of periods and the periods' length (that is, five semiannual periods). For every period, they indicate if the vulnerabilities have been present with a yes (Y) or no (N). A "yes" accounts for 1 point, whereas a "no" accounts for 0 point. In this example, four "yes" answers account for 4 points, which means that this vulnerability has the highest occurrence score. The resulting number (4) is multiplied by the expected effect, because the combination of effect and urgency determines the prioritization level. In this example, an expected effect of 10 points was determined with a probability of continued occurrence of 4 points. Therefore, this formula gives us a 40-point priority level (10 × 4 = 40). We will see further that by comparing the prioritization level given to each vulnerability, we will be able to prepare a risk treatment strategy.

Step 3 is to select treatments, responsible units, and time frames (see Table A2.3).

Table A2.3. Step 3. Selection of Treatments, Responsible Units, and Time frames

Process Code	Limitation or Vulnerability	Institutional Risk	Treatment			
			Measure	Responsible Unit	Supporting Units	Expected Completion
1.1.1	Insufficient and untimely sea manifest data	Legal framework	1. Amend Section "X" of the customs code to make transmission of sea manifest data mandatory. 2. Amend Section "X" of the customs code to include sanctions (fines, penalties) to shipping lines that do not transmit the required sea manifest data, completely and on time.	Legal	Risk management Operations IT	June 2023 To be included in the upcoming customs reform package
1.1.2	Insufficient and untimely sea manifest data	Procedures	1. Amend Section "X" of the customs operational manual to include procedures for the reception, validation, and handling of sea manifest data. 2. Introduce procedures to reconcile sea manifest data with physical cargo discharge data.	Operations	Risk management IT Legal	January 2023
1.1.3	Insufficient and untimely sea manifest data	IT system	1. Develop technical solutions to monitor the status of cargo and link it to further processes and declarations.	IT	Risk management Operations	June 2023

Source: Authors. Note: IT = information technology. Concrete corrective measures have been selected to address this vulnerability. The group of experts has determined who must apply such measures and when. Regarding the expected completion date, it is important to keep in mind that the development and implementation of some measures depend on the development and implementation of other measures. In this example, the specific procedures for the collection of the sea manifest data must be defined before the information technology unit determines what changes to the information technology system will be required and the legal unit starts drafting the required regulatory amendments. Also, some comments may be added to the "expected completion" column to provide key information regarding possible external factors that may affect the implementation of the corrective measure. This example shows that the required legal amendments will be included in the upcoming customs reform package, which may be affected by political factors.

Step 4 is to develop indicators to monitor progress (see Table A2.4).

Table A2.4. Step 4. Indicators to Monitor Progress

Process Code	Limitation or Vulnerability	Treatment	Indicators					
					2024			2025
		Measure	Numerator	Denominator	Numerator	Denominator	%	...
1.1.1	Insufficient and untimely sea manifest data	1. Amend Section "X" of the customs code. 2. Amend Section 235 of the customs code.	Number of shipments where sea manifest data were filed electronically in advance (completely and on time).	Total number of shipments arrived.	5,478	16,392	33.4%	....
1.1.2	Insufficient and untimely sea manifest data	1. Amend Section "X" of the customs operational manual. 2. Introduce procedures to reconcile sea manifest data with physical cargo discharge data.						
1.1.3	Insufficient and untimely sea manifest data	1. Develop technical solutions to monitor the status of cargo and link it to further processes and declarations.	Number of shipping lines filing complete and timely sea manifest data in advance.	Total number of shipping lines in operation.	12	43	27.9%	....

Source: Authors.

Indicators must be designed to monitor progress in the correction of the vulnerabilities. That is the reason the same indicators apply to all the corrective measures selected to address process code 1.1. At the end of the road, in this example, the goal is that sea manifest data are filed in advance, completely and on time. With the results from the indicators, the group of experts can, among other things: (1) decide if the administration needs to strengthen sanctions on noncompliant operators; (2) approach noncompliant operators to learn why they are not complying; (3) correct legal provisions and IT glitches, if necessary; and (4) develop education and technical assistance programs to facilitate and encourage compliance among operators.

Example 2. Addressing vulnerabilities that allow for the materialization of specific compliance risks

Valuation has been selected as the compliance risk to be addressed. As shown in this example, there could be vulnerabilities at the institutional level, which are impeding the customs administration from collecting relevant and timely data to detect and address valuation issues effectively.

Step 1 is to identify vulnerabilities in institutional risks and assessing effect (see Table A2.5).

Table A2.5. Step 1. Identifying Vulnerabilities in Institutional Risks and Assessing Effect

			Estimated Effect				
Process Code	Limitation or Vulnerability	Institutional Risk	Institutional Image	Security and Safety	Tax Collection	Trade Facilitation	Expected Effect
1.3.5	Lack of electronic customs value declaration	Legal framework	Low	Low	High	Medium	7
1.3.5	Lack of electronic customs value declaration	IT system	Low	Low	High	Medium	7
3.1.1	Insufficient/weak sanctions to help deter valuation noncompliance	Legal framework	High	Low	High	Medium	9

Source: Authors.

Note: IT = information technology.

Different vulnerabilities are identified after analyzing the cargo management, clearance, and post-clearance processes, and they are associated with different institutional risks. Each of them requires a different treatment. As in Example 1, effect is categorized into three different levels: low (accounts 1 point), medium (accounts 2 points), and high (accounts 3 points) on each of the strategic objectives of the customs administration (institutional strength, controls, tax collection, and trade facilitation).

The second, third, and fourth steps are the same as those used in Example 1. The prioritization of the identified vulnerabilities may apply the same formulas, and the identification of treatment measures and the assignment of responsible units and time frames follow the same steps and have the same elements. Therefore, under this example, it would be necessary to consider the following:

- **Treatment measures.** For the vulnerability identified in process code 1.3.5 (lack of an electronic customs value declaration), some of the treatment measures could be to (1) update legal framework to require importers to file such declaration and (2) develop an electronic form for importers to file their customs value declaration. For the vulnerability identified in process code 3.1.1 (insufficient/weak sanctions to help deter valuation noncompliance), a treatment measure could be to review and update the sanctioning framework to deter noncompliance.
- **Indicators.** A set of indicators may include for the treatment measures implemented to address the vulnerabilities identified in process code 1.3.5: (1) percentage of importers filing electronic customs value declarations (with the goal set at 100 percent) and (2) percentage of import transactions where electronic customs value declarations were filed (with the goal set at 100 percent). For the treatment measures implemented to address the vulnerabilities identified in process code 3.1.1, an indicator could be evolution of the proportion of repeat offenders in customs valuation (increase/decrease).

ANNEX 3. Examples of Templates to Facilitate the Development of a CIP Focused on a Specific Compliance Risk

Compliance Risk Undervaluation	According to customs records on valuation offenses detected during the clearance process and findings derived from PCAs, as well as analyses conducted by the customs valuation and tariff classification units, there are **XX HS Codes** linked to this risk. During the past fiscal year **XX operators** imported goods under such tariff items.

The following indicators allow the administration to establish a baseline to measure compliance among operators conducting transactions involving undervaluation of the selected sensitive goods:

- Proportion of total transactions and value of imports/exports carried out by AEO and TTP participants.
- Evolution in percentage of import/export declarations processed through each selectivity channel.
- Evolution in the assertiveness rate of the selectivity criteria.
- Evolution in the assertiveness rate of PCAs.
- Unit price variation analysis for each sensitive HS Code.

1. Indicators

HS Codes	CIF	CIF Periodical Variation	VAT	VAT Periodical Variation	Customs Duties	Customs Duties Periodical Variation	Excise	Excise Periodical Variation	Number of Importers	Number of Importers Periodical Variation
X1XXX.X1	$	%	$	%	$	%	$	%	#	%
XXXX.X2	$	%	$	%	$	%	$	%	#	%
XXXX.X3	$	%	$	%	$	%	$	%	#	%
XXXX.X4	$	%	$	%	$	%	$	%	#	%
XXXX.X5	$	%	$	%	$	%	$	%	#	%
(...)	$	%	$	%	$	%	$	%	#	%

2. Importers' Segmentation by HS Codes

HS XX.XX.X1		No. of Importers	% vs. Total Number of Importers	Repeat Offenders	Repeat Offenders Periodical Variation	CIF	% vs. Total CIF	Collection	% vs. Total Collection
Large	**High risk**	#	%	#	%	$	%	$	%
	Medium risk	#	%	#	%	$	%	$	%
	Low risk	#	%	#	%	$	%	$	%
Medium	**High risk**	#	%	#	%	$	%	$	%
	Medium risk	#	%	#	%	$	%	$	%
	Low risk	#	%	#	%	$	%	$	%
Small	**High risk**	#	%	#	%	$	%	$	%
	Medium risk	#	%	#	%	$	%	$	%
	Low risk	#	%	#	%	$	%	$	%

3. Treatment Measures at Operational Level

HS XX.XX. X1XXXX.X1	High Risk	Medium Risk	Low Risk
Large	• PCA (on-site)	• Apply selectivity criteria to increase percentage of document/physical examinations at clearance • Letters/notices inviting operator to correct and comply	• Eligible for AEO or TTP • Eligible to file monthly declarations and payments • Simplified declarations • Apply selectivity criteria to decrease percentage of documents/physical examinations at clearance
Medium	• PCA (documentary at PCA unit offices) • Letters/notices inviting operator to correct and comply	• Communication strategy designed to deter noncompliance in matters of valuation	• Eligible to file monthly declarations and payments • Eligible to participate and contribute in customs workshops aimed at improving compliance
Small	• Communication strategy designed to deter noncompliance in matters of valuation • Apply selectivity criteria to increase percentage of documents/physical examinations at clearance	• Increased registration requirements • Moderate cargo selectivity criteria	• Apply selectivity criteria to decrease percentage of documents/physical examinations at clearance

4. Vulnerabilities and Treatment Measures at Institutional Level

Vulnerabilities	Institutional Risk	Compliance Risk	Effect	Probability	Prioritization	Treatment	Responsible Unit	Expected Completion	Indicator
Vulnerability 1	Legal framework	Valuation	Effect 1 Effect 2	Medium	High	Measure 1 Measure 2	Legal	Date	Indicator 1 Indicator 2
Vulnerability 2	IT systems	Valuation	Effect 1	Low	Medium	Measure 1 Measure 2	IT	Date	Indicator 1 Indicator 2
Vulnerability n	Processes	Valuation	Effect 1 Effect 2	High	High	Measure 1 Measure 2	PCA	Date	Indicator 1 Indicator 2

Source: Authors.

Note: AEO = authorized economic operator; CIF = cost, insurance, and freight; HS code = Harmonization System code; IT = information technology; PCA = post-clearance audit; TTP = trusted trader program; VAT = value-added tax.

ANNEX 4. Risk-Management Committee

Key Governing Roles and Responsibilities

Head of customs. Directs, supports, and approves the development of policies to strengthen core processes in line with an IRM approach. Provides oversight on the implementation of these policies. Monitors the level of progress through key performance indicators and ensures that adequate and opportune remedial actions are implemented.

Directors and heads of divisions/units. Define IRM strategies and prioritize risk mitigation measures. Supervise risk mitigation action plans for key customs processes. Evaluate the effect of the activities on improving compliance. Define performance indicators and regularly report to the head of customs on results achieved.

RMC coordinator. Responsible for developing the agenda, gathering information, and preparing reports for RMC members. Empowered to require and review information and actions taken by divisions/units in charge of implementing measures approved by the RMC and to authorize specific actions in support of such measures. Responsible for gathering and presenting proposals and recommendations from the field and divisions/units to the RMC. The RMC coordinator should be an experienced official, who is granted direct access to the head of customs and the directors of divisions/units.

Technical subcommittees. Identify critical risks in each process and subprocess, and recommend treatment measures. Working inclusively, promote and enable the adoption of a culture of prevention, mitigation, and risk treatment. Report regularly to directors or heads of divisions/units.

Customs offices, operational units, and staff. Carry out specific tasks defined to strengthen processes under the IRM approach. Perform risk mitigation actions with diligence and in a timely fashion. Provide operational input and evidence to feed the analysis of current and emerging risks.

All parties. Support and promote the adoption of a risk-management culture within the customs administration, and provide inputs and resources necessary to implement and improve the IRM approach on a continuous basis.

Functions of the RMC

- Identify and analyze vulnerabilities within the core customs processes to determine whether they are providing opportunities for smuggling, tax evasion, and commercial or customs fraud.
- Define the risk treatment measures or projects to address those vulnerabilities in keeping with the principles embedded in the IRM framework.
- Assess and approve the risk treatment activities that will be conducted before, during, and after customs clearance.
- Monitor the implementation of the risk treatment measures to ensure they mitigate risks as intended, and adjust as required.
- Define the procedures that will be applied to keep the cargo selectivity criteria relevant and effective.
- Act as a permanent and institutionalized channel for cooperation and information exchange among the different divisions and law enforcement and security agencies to mitigate risks effectively.
- Design and implement an internal communication strategy to disseminate the IRM framework among all customs personnel and to articulate how their activities contribute to meeting the strategic objectives.

- Approve, in coordination with the competent divisions/units, information to be released to the trade community, with a view of encouraging compliance and enhancing the institutional image regarding its effectiveness in enforcing the law and facilitating trade.

The RMC should be supported by specialized technical subcommittees to consider, for example, new enabling technologies, management and optimization of data usage, updating cargo selectivity criteria, collecting intelligence, conducting investigations, and improving the PCA function. When a customs administration is integrated under a revenue agency, the customs RMC must be a subcommittee that reports to the revenue administration governing committee in charge of the organization's risk management.

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