

U.S. – Canada Data Exchange

1990 – 2001

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This paper reports the results of research and analysis undertaken by staff from Statistics Canada and the U.S. Census Bureau. It has undergone a review in both agencies that is more limited in scope than that given to official publications. This report is released to inform interested parties of ongoing research and to encourage discussion of work in progress.

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Introduction

In July 1987 Canada and the United States embarked upon a grand experiment by signing a Memorandum of Understanding (MOU) to exchange import statistics starting with January 1990 data. From this date, the two statistical agencies would no longer base their bilateral export statistics on export declarations. Instead, they would rely on the import statistics of the counterpart country. Statistics Canada relies on American imports from Canada as compiled by the U.S. Census Bureau as the source of its export data. Likewise, the U.S. Census Bureau derives its exports to Canada from data on imports from the United States compiled by Statistics Canada. Because of the greater scrutiny paid to imports by the customs agencies in both countries, this exchange provides a more reliable measure of the bilateral trade. In addition, the reporting burden on exporters and forwarders in both countries was significantly reduced, as export declarations are no longer required for trade between the two partners. It was one of the first agreements between trading nations relating strictly to trade statistics.

Overall, that experiment has proved a success. It has eliminated the need for exporters to file roughly 1.5 million Canadian and 7 million U.S. export declarations in 2000. It has significantly reduced non-reporting of exports to the other partner, particularly in the United States; and it has fostered a close relationship between the statistical and customs agencies in both countries. Although, overall, the data exchange has significantly improved data quality in both countries, it has also introduced some problems that would not otherwise exist.

After nearly a dozen years, the data exchange is no longer an experiment. It has become a part of our agencies' daily operations. It has improved the quality and coverage of both countries' trade statistics and has significantly reduced costs for both the governments and the trading community. It has proved successful enough that there is pressure on both agencies from the trade community and from other Government Agencies to implement exchange agreements with other partners. On the other hand, some other government agencies have expressed some frustration with the limitations imposed by the data exchange and have questioned whether it is still appropriate.

Meanwhile, trading policies and practices have changed since the data exchange's implementation. Some of these changes have affected the operations of the data exchange. Finally, in the case of the occasional bilateral trade dispute, the exporting partner no longer has an independent source of data.

This, then, seems like an appropriate time to step back and take stock of the "Exchange of Import Data Between the United States and Canada."

The first part of this paper will consist of looking back: why did we decide to abandon independent export reporting and link our trade statistics to those of the other country? What steps were needed to make the exchange a reality? What obstacles had to be overcome?

Then, we'll examine where we are today: What impact has the data exchange had upon the published statistics of both countries? How have changes in trading practices affected the data exchange? What works well, what does not? What improvements are needed?

Finally, we'll look ahead: What impacts will changes such as the G-7 initiative and Customs modernization efforts in both countries have on the data exchange? Finally, we will discuss desired improvements to the exchange and the applicability of the model to other partners.

Background

Canada and the United States of America have between them the largest volume of international trade in goods of any two countries in the world. This unique bilateral trade relationship creates many opportunities for joint cooperation between the two governments. One of these opportunities was the statistical data exchange between the two countries.

In the 1970's, a series of events occurred that made it imperative for the customs and statistical agencies of both countries to find new and innovative ways to cooperate to ensure continuing integrity in their published merchandise trade balances and other aspects of their international trade statistical mandates.

In 1970, the United States reported a trade deficit with Canada of almost \$2 billion while Canada claimed a surplus of only \$1 billion. (All values in this report are in U.S. dollars or footnote.) Agreeing that this discrepancy was unacceptable, the two countries agreed on an explicit data reconciliation procedure, the result of which was to provide the negotiators on both sides of the border with a unique set of special figures. The two statistical agencies agreed that the best measure of the Canadian trade surplus was \$1.4 billion. The single most important adjustment was for unreported U.S. exports to Canada, which was estimated at half a billion dollars or 5.5 percent of U.S. exports to Canada. The Canadian undercount was smaller, but still significant, at 1.4 percent.

By 1986, the results of the systematic data reconciliation showed that the export undercount had grown dramatically in both countries. Undocumented U.S. exports to Canada now equaled 22.4 percent of the published value. Canadian nonreporting had grown to 3.8 percent of the published value. These errors were severely affecting the published trade balances: the Americans' published trade deficit with Canada was \$22.9 billion while Canada published a trade surplus with the United States of \$11.4 billion. This concern was heightened by the fact that the two countries were in the process of negotiating the U.S.-Canada Free Trade Agreement, the largest free trade agreement in the world, which was dependent on a solid information framework. It was imperative, if the Free Trade Agreement were to succeed, that the ongoing statistical framework between the two countries be one of confirmation, rather than contradiction.

On a more operational level, the steadily rising costs of collecting and processing the rising volume of export and import information had become an issue for both governments and their private sectors.

Clearly the deterioration in the quality of the export data was not acceptable and required drastic action.

Two positive developments helped us to meet this challenge. First, both countries were adopting the Harmonized System (HS) of Tariff Nomenclature, which provided a common statistical infrastructure. (Both already followed the United Nations concepts and definitions.) Secondly, both statistical agencies had built up trust in and knowledge of their concepts and methods after 15 years of systematic data comparison. In addition, the difficulties of collecting all export declarations had become a concern for the customs agencies, which actively participated in the search for a solution.

The four agencies agreed that the best approach was to depend upon the controls inherent in the import process and to agree to exchange import information to serve as the basis for each country's export statistics.

In many ways, the United States and Canada are ideally suited for a data exchange. The two share a land border and a geographically isolated, so that bilateral trade generally flows directly from one to the other. They share a common language and are located in the same time zone, both of which facilitate frequent, informal and unscheduled communication between working level staff. They have similar or identical processes, concepts and systems. And, after years of reconciliation studies, both partners recognized the need for the exchange.

This agreement has had many advantages to both countries and their respective trading communities. Disputes about balances of merchandise trade have disappeared and the paper burden on exporters has diminished dramatically. Those in the government and the private sector, who use trade statistics to make decisions, have greater assurance of the inherent integrity of the statistics on which they base decisions which impact on the economic growth of both countries.

Objectives of the Data Exchange

The data exchange and its governing MOU had three principal objectives. These were, (1) eliminate the export undercount of both Canada and the United States for trade with each other, (2) ensure that there would not be two different sets of numbers describing the same phenomenon, (3) reduce the response burden on traders and reduce the cost to both traders and government.

Prior to the data exchange both Canada and the United States derived their export statistics from export declarations filed by traders at individual customs ports. Although it has always been recognized that some of the required declarations were not filed, historically this amounted to less than five percent of total export values. However, by the early 1970's non-filing increased dramatically. Likely causes for the increase include deregulation of the transport sector, which encourage new companies with less knowledge of reporting requirements to participate in cross-border trade, and which increased companies' incentives to cut costs. At the same time, increasing trade volumes and the resulting workload pressures, reduced the attention paid by the customs agencies to the collection of export declarations. As remedial actions did not yield the desired results the partners began considering a data exchange with the principle objective of eliminating this large and growing undercount. (Objective 1)

In principle, the value of goods that the United States buys from Canada should be the same as what Canada sells to the United States, and vice versa. But this was not the case during the early 1970's. Starting at that time the differences in bilateral trade statistics grew to an unexpected proportion; in some years each country claimed a deficit with the other. The fact that the two countries could not agree on the dimensions of their extensive trade relations caused considerable concern in both countries. The data exchange was to ensure that the two countries would use only one, mutually agreed, set of numbers to describe their trade relationship. (Objective 2)

During the 1970's a third issue emerged; the demand to reduce response burden on traders and control the cost of collecting and processing the rising volume of trade statistics. The data exchange, by eliminating the need to file export declarations would also provide the ideal method to achieve this goal. (Objective 3)

What Had to be Done?

Implementing the data exchange was no easy task. First, the partners had to fully understand the data collected by the other country and the impact that an exchange would have upon their own statistics. Next they had to negotiate an agreement authorizing the exchange of confidential data and determining what limits should be placed upon its use. Then, they had to resolve certain differences between their statistics, harmonize their concepts, methodologies and classification systems, integrate their processing systems, and establish appropriate channels of communication and monitoring. The customs agencies then had to modify the importing requirements to collect the additional information needed, then educate importers and respond to their concerns over the additional burden.

By the time the two countries began considering a data exchange, they had already essentially accomplished the first task. The reconciliations that the two countries had been conducting since the early 1970's had given each agency a thorough understanding of the counterpart statistics, from which they could develop appropriate procedures for deriving their export data from the other's imports. Based on this knowledge, they knew that they had to develop adjustments or procedures for currency conversion, coverage differences, valuation, freight charges and classification.

Once the decision was made to begin working towards a data exchange, the next step was to develop a legal basis for the exchange. The agencies had to find a scope and format that met each country's statistical and legal needs. A memorandum of understanding, to be signed by the heads of each country's customs and statistical agencies, was selected. In negotiating the terms of the agreement, the major issues to be decided included: whether to exchange aggregated or detailed data, how the data could be used, who would have access to the data, what data elements would be exchanged, who would be responsible for what costs, and who would oversee the exchange. The agreement also specified the new data elements each partner would collect to meet the needs of the other.

Although, in theory, the partners could have exchanged only aggregated data, that would have made review and analysis difficult. Instead, they agreed to exchange transaction-level detail that could be processed and reviewed in the same manner as export data from other partners. This decision raised issues of confidentiality. Each country has laws and regulations protecting the confidentiality of the data submitted by traders. Although the MOU, by its very nature, created an exception to these regulations, the partners were not yet ready to throw open their books completely. In order to provide enough data to compile accurate statistics while meeting each partner's confidentiality concerns, it was agreed that the importers' identities would not be exchanged and that use of the data would be governed by the laws and regulations of the providing country. Instead, the partners would exchange information only on the party that had sold the goods to the importer, information that would otherwise have been available from the export declarations. The parties also agreed that the data would be used for statistical purposes only. The MOU also stated that the providing country would have the final say over use of its data and that each agency would be responsible for the costs associated with the data it was providing.

Each partner agreed to collect some new information from importers in order to meet the exporting country's needs. The United States agreed to collect: 1) identification of the Canadian vendor, 2) Canadian province of origin of the exported goods, 3) gross shipping weight for overland trade (the United States already collected this for air and vessel shipments), 3) estimated freight costs to the Canadian point of exit or to the final destination, and 4) container information for all shipments.

Canada agreed to provide: 1) U.S. port of exit, 2) air carrier or vessel manifest number or name, 3) U.S. state of origin, 4) shipping weight for air and vessel shipments, 5) indicator of whether or not the parties to the transaction are related, 6) foreign trade zone number, where applicable, 7) identification of U.S. vendor, 8) estimated freight charges to U.S. point of exit or final destination, and 9) date of exportation.

An annex to the agreement specified exactly what data elements would be provided. Details on the method and timing of the exchange, and on release dates, were not specified, allowing the agencies flexibility to work out these arrangements.

The MOU established a 4-person committee, with one representative from each of the statistical and customs agencies, to monitor the administration and implementation of the data exchange and to resolve any technical or operational problems that may arise. The committee was directed to meet as often as needed, but at least annually.

Meanwhile, the agencies were working to identify and implement the changes needed to make the exchange a reality. The major actions needed to implement the exchange were: alignment of classification systems; harmonization of concepts, definitions and coverage; operational details such as scheduling, editing procedures and processing issues; and agreement upon procedures for releasing the data.

Classification Alignment: the data exchange was made possible by the adoption by both countries of the HS, which created a common framework of upper level classification. However,

below the international 6–digit level, there were significant differences in how the two countries had implemented the HS. Classification and commodity experts from both countries worked together to develop procedures for recoding one country's commodity codes to the other's. In some cases, these recodes crossed HS-6 categories, if the two countries differ in their interpretation of the HS. In some cases, this required creating additional import codes to allow for the level of detail needed in the partner country's exports. Canada added roughly 4,000 import commodity codes to meet U.S. export needs. The United States, having a much more detailed import schedule added a few hundred codes to meet Canadian needs. Even with all these additions, the two systems were not perfectly aligned. For commodity categories with relatively little trade for which a given import code could not be recoded to a single counterpart export code, the agencies picked one of those export codes, usually either the class with the most trade or the residual (other) category for the 6-digit HS code. An interim "dispute settlement" committee, now defunct, was established to attempt to resolve classification differences.

Coverage: Several changes were made to resolve the coverage issues. Goods shipped through one partner on their way from the other partner to a third country, which were generally thought to be shipped under bond through the intermediate partner were deemed out of scope. In writing their regulations eliminating export reporting regulations for U.S. - Canada trade, each country specified that only goods destined for the partner were exempt--export declarations would still be required for goods shipped to the partner country en route to somewhere elsewhere. In addition, U.S. exporters were still required to declare exports of U.S. grain sent to bonded storage facilities in Canada, which is not included in Canadian import data.

One complication is that imports are compiled, in accordance with United Nations guidelines, on a country of origin basis. Exports, however, are compiled on a country of destination basis, regardless of the country of origin. In order to convert import data into counterpart export data, the country of exportation (or shipment) was needed. Canada already collected this information; the United States, which collected it for some transactions, agreed to require it for all. This data element would determine the scope of the exchange. Goods of third country origin imported by one of the partners from the other (such as Mexican auto parts imported by Canada from the United States) would be included in the exchange and identified as re-exports. Goods of U.S. or Canadian origin imported from a third country would not be provided in the exchange.

The United States also agreed to use Canadian data on trade in electricity (treated as a good under the HS) for both directions of trade, having no independent source of this data available in sufficient detail.

Operational Issues: The two statistical agencies also had to work out a number of operational issues. Detailed processing schedules had to be worked out so that each agency knew when to expect what from the other and both had all the data needed in time to meet their publication deadlines. They agreed to release the data at the same time, to protect the security of the balance of trade indicators. The partners agreed to use monthly exchange rates from the U.S. Federal Reserve Board to convert the Canadian import values to U.S. dollars and rates from the Bank of Canada (?) to convert U.S. import values to Canadian dollars. They agreed that the exporting country also would edit the data received through the exchange, While ensuring consistency between the data from the exchange and that from other sources, this decision has led to some

inconsistencies, particularly as regards quantity and pricing measures, between the two countries' detailed data. Each country developed an interface program to translate the partner's import data to serve as its export data.

Success vs. Objectives

More than 11 years after implementation of the data exchange, the data exchange must be regarded as a success. It has essentially met its original objectives by: 1) eliminating the undercoverage of direct exports between the United States and Canada, 2) eliminating unexplainable discrepancies between Canadian and U.S. trade statistics, and 3) eliminating reporting burden on exporters in both countries and significantly reducing costs for both governments. In addition, because of the greater scrutiny given to imports by customs authorities, and the fact that imports in both countries are nearly all collected electronically, the overall quality of the data is higher than would be the case without the data exchange.

Despite the exchange, the two countries' data are not identical. There are still differences between the two sets of statistics, particularly at the detailed level. Some of these differences are the inevitable result of the UN standards relating to trade involving third countries, others result from the decision to add inland freight costs in exports but not to imports. There are also still some differences in how certain goods are classified in each country. Each month, the United States publishes an explanation of these differences in its trade release.

In addition, some errors have been introduced by the data exchange. The main one is undercoverage of goods shipped under bond through the other partner on the way to a third country. Since these goods are not included in import statistics they cannot be returned via the data exchange. Although both countries require exporters to declare these shipments, several studies, while not representative of total trade, have shown that not all the required declarations are being filed. In some cases, exporters may mistakenly believe that they are not required to file an export document. Or, the lack of infrastructure at the border may discourage carriers from filing the export declarations they were given. In other cases, however, shippers may disregard the reporting requirements since the risk of getting caught is so low.

Other Effects

The data exchange has affected many aspects of the statistical and customs agencies' operations. Some of these effects are an inevitable result of any such agreement, while others result from decisions made during the design and implementation of the exchange. The primary effects are: 1) interdependency of the agencies, 2) differing national needs, 3) increased burden on importers, 4) obstacles posed by confidentiality concerns, 5) loss of information for enforcement and administrative purposes, and 6) closer interagency cooperation and coordination.

Interdependency

An essential feature of any data exchange agreement is that the statistical and customs agencies in the two countries are tied together--any action by one can affect all of the others.

On the operational side, this interdependency limits the number of data exchanges that a country can practically engage in. The detailed classification schedules of the partners must be aligned for all goods with significant bilateral trade. After implementation, all classification changes must be considered in terms of their impact on the data exchange partner. This need complicates each country's efforts to simplify its tariff schedule.

In addition, each stage of processing must be coordinated between the two partners and any problems encountered by one partner, if not quickly resolved, will affect the other. The most extreme example encountered by the United States and Canada occurred in 1995 when the U.S. Government shut down for an extended period. This shutdown deprived Canada of data on 70 percent of its exports, preventing it from publishing its trade statistics until the U.S. Government reopened and the Census Bureau caught up. In more routine cases, processing problems or other glitches can delay transmission of data files and impact the partner's processing.

This interdependency also limits each partner's ability to react to changing conditions. For example, release dates cannot be changed unless both partners agree. Any action taken by any of the four partner agencies can impact the others. For example, both customs agencies have modernization programs in progress. Canadian Customs has already implemented a program that could result in later filing of some import transactions, and reduce the quality of certain data elements, such as transportation information. The U.S. Customs Service is currently working on its own modernization efforts, which could affect the timing and quality of the data provided to Canada.

Each partner also loses the ability to react quickly to situations affecting its exports. Instead of being able to introduce a new data element for exports, for example, it must first convince the partner to collect that data from its importers. In some cases, the partner may not need this information or the information may not be readily available to the importers. A partner may also be affected by special legislation passed by the others. For example, a provision in U.S. legislation exempting imports of rail cars and locomotives from import entry requirements has also affected Canadian statistics.

Above all, with the data exchange, all four agencies must work together to meet a goal that may only be important to one or two. For example, in order to collect an additional data element, a statistical agency must convince the Customs agency in the other country to add this item to its import entry. This falls outside of the normal lines of communication where each agency generally works closest with the other agency in its own country and with its counterpart in the partner country. (That is, for example, Canada Customs works most frequently with Statistics Canada and U.S. Customs, not with the Census Bureau.) In some cases, the two countries may have different viewpoints on what should be collected or how a given type of transaction should be related in statistics. A change that is important to one agency may be of low priority to the others. Or work on an issue may be stalled by unrelated disagreements between the partner agencies.

Differing National Needs

In some circumstances, the statistical needs of the importing and exporting country may differ. Under the United Nations concepts and definitions for merchandise trade, there are inconsistencies between how certain transactions should be handled by the importing and exporting countries. In addition, since problems do not always affect both countries equally, the country least affected may see the issue as being of relatively low priority or be reluctant to take corrective action, particularly if such action would place significant burden on its importers or customs officials.

Increased Burden on Importers

The Canada/U.S. data exchange has also somewhat increased the burden upon importers in order to eliminate the burden upon exporters. Importers in each country have to provide data that would not otherwise be required (such as Canadian province of origin, U.S. state of origin of movement and transportation data needed by the United States but not previously collected by Canada). The quality of these data may be less than for the other import data elements as they would receive little or no scrutiny from the importing country's customs officials, and some, such as U.S. port of exit, or Canadian province of origin, may not even be known to the importer.

Confidentiality

Subject matter experts of the two statistical agencies need to share confidential, company, and transaction specific information during their ongoing quality assurance activity. At times, information needed to investigate a potential problem, such as nonreporting of exports, can fall outside of the information the agencies are permitted to share, making resolution difficult. Confidentiality concerns can also hamper investigation and explanation of unusual changes in trade.

Loss of Information for Enforcement and Administrative Purposes

In order to meet concerns in both countries concerning confidentiality, the memorandum of understanding governing the data exchange permitted use of the data for statistical purposes only. This left the agencies with export enforcement or policy responsibilities, such as the two customs agencies, the U.S. Bureau of Export Administration, Industry Canada, and Canada's Department of Foreign Affairs and International Trade without some of the information they needed to do their jobs. As the data exchange has become a way of life on the border, the agencies have begun exploring the possibility of revising the Memorandum of Understanding, but as yet, the old restrictions remain.

Closer Interagency Cooperation and Coordination

A major benefit of the data exchange has been much closer cooperation and coordination among the four partner agencies. The need to close and frequent communication was recognized early and addressed through multiple channels. Each agency has designated a primary point of contact to serve as liaison for operational issues. A Monitoring Committee of working level staff meets

twice a year in addition to having frequent contact by telephone. Commodity experts in both statistical agencies are in frequent contact as they review the data.

To provide longer-term, upper level leadership, a Strategic Policy Group was formed in 1998. Previously, the heads of the four agencies met annually to discuss policy issues affecting the exchange. However, as the exchange moved from the innovative to the routine, this level of involvement was no longer needed. The Strategic Policy Group reports annually to the agency heads, and may request a meeting of the Heads of Agencies Committee, if warranted.

These regular contacts at the operational and management levels ensure that there is a constant exchange of ideas and information that should improve both countries' statistics. These forums also provide a platform to exchange information on ways in which the trade community is modifying its procedures and processes in order to take advantage of the dropping of barriers and adapting to technological innovations.

What the data exchange handles well and what poorly

In order to assess what the data exchange handles well and what it handles poorly, one has to understand the historical context of the exchange. In the 1980's and early 90's both Canadian and U.S. trading practices and customs regimes were characterized by stability. Specifically customs rules were well established, they were uniform across all entry points and were strictly enforced. The existence of duties and the revenue collection mandate of the customs agencies ensured that import statistics were diligently collected and associated rules enforced. From an importer's perspective, knowledge of and compliance with customs rules and regulations ensured the fast release of their merchandise resulting in a cost savings.

It is now more than a decade since the MOU was signed. Since the signing of the MOU fundamental changes, brought about by revolutions in the communications, transportation and technology sectors, and prompted by imperatives of globalization and competitiveness in the business world, are taking place in the external environment of the customs and statistical agencies.

These changes have the potential to create challenges to the integrity of trade statistics that were unknown and unforeseen at the time the MOU was signed. Among the most important of these are:

- Radically altered business practices in the private sector which bring into question whether detailed transaction by transaction trade data – the current lifeblood of the customs and statistical agencies – will continue to be available (or reliable) over the medium term. Some in the trade are seeking the ability to report on a periodic, aggregated basis, which could make some data currently collected, such as insurance and freight charges or port information, less reliable or unavailable;
- The need for customs administrations to re-engineer their underlying business practices to respond to the radically altered needs and business process of their commercial clients; and

- The adaptation and implementation of the U.S.-Canada Free Trade Agreement and the North American Free Trade Agreement, which have virtually eliminated tariffs and fees on U.S.-Canada trade. In the absence of duties, some businesses may see less reason for the administrative burdens of import reporting, and the customs agencies may devote fewer resources to examining entries along the U.S.-Canadian border.

Direct Trade

The data exchange handles direct trade between the two countries extremely well resulting in (1) improved coverage (2) improved data quality, and (3) reduced respondent burden. Such trade, while difficult to measure, clearly accounts for the majority of shipments between the two partners.

As mentioned earlier, the pre-data exchange export programs were characterized by low response rate especially for U.S. exports. The level of non-receipt, which averaged 12.8 percent of the United States published values from 1979 to 1985 jumped to 22.4 in 1986. The corresponding Canadian numbers were approximately 3 percent for the period of 1979 to 1985 increasing to 3.9 in 1986. The data exchange resolved the issue of export undercoverage, as it is assumed that imports are 100 percent reported.

Transiting Trade

One type of trade not handled well by the data exchange is transiting trade—goods that are simply passing through one of the two partners on their way from the other partner to a third country. When these goods are sent under-bond, the exporter is supposed to declare the goods as exports to the final country of destination, which would result in the transaction being properly reported from both partners' perspectives. However, in many cases the required declarations are not filed.

Through company interviews, including extensive research by Statistics Canada, we have learned that many companies have reduced or eliminated their use of the bonded in-transit procedures. Mostly for logistical reasons, companies may enter goods into the United States (or Canada) that are really just transiting that country on their way elsewhere. With no U.S. tariffs or fees on imports from Canada, many companies see no reason to incur the greater procedural hassles of the in-bond process. With or without a data exchange, this practice distorts bilateral trade statistics. For example, if a Canadian good being shipped to Mexico is entered into the United States, then re-exported to Mexico, the United States will show an import from Canada and an export to Mexico. This will overstate the trade deficit with Canada and understate that with Mexico. In addition, this practice creates significant discrepancies between Canadian and Mexican statistics, since Mexico will record these goods as imports from Canada while Canada will show them as exports to the United States. This practice still appears to be rare for U.S. goods transiting Canada, since Canada imposes a value-added tax on imports.

Whether this is different from what would have happened in the absence of the data exchange is unclear. By regulation, the Canadian (or U.S.) exporter should declare the goods to the final

country of destination. In practice, however, particularly where multiple countries of destination are involved, it is likely that at least some of these goods would still have been reported as exports to the United States (or Canada).

Under the data exchange, however, the export could be doublecounted. If the exporter declared the goods to Canada Customs, as required, Canada will show the good as an export to the country of ultimate destination, in addition to the export to the United States received via the data exchange. The four partner agencies are working to find a way to account for the effects of transiting goods, probably on a post-publication basis, but significant issues, including definition and respondent burden, are still being reviewed.

Reaction to Change

Another weakness of the data exchange and its governing MOU is the speed at which it handles change. As trading environments, customs rules, regulations are evolving and statistical and non-statistical requirements change, it is imperative that the statistical framework change also. Particularly for issues involving its exports, such as increased need for access to information on exports by the customs agencies following the events of September 11, changes to improve data quality such as separate reporting of the country of origin, or better handling of transiting goods, making any change to either the MOU or the data collected and exchanged is generally a very time-consuming process.

Additional Data Exchanges

As mentioned earlier all principal objectives of the data exchange were achieved and problems that surfaced recently are not insurmountable. Therefore it is not unreasonable to ask two questions. At this time these are:

- Given the success of the Canada/U.S. data exchange is it possible to extend it to other countries as well?
- Given the new developments in trading and customs environments, are there better options than a data exchange for improving statistics on trade with other partners?

Let us try to answer these questions one by one.

Canada and the United States do not have any other exchange programs nor are we contemplating any at this time. The reason for this is that we do not feel that many of the preconditions of data exchanges as discussed earlier in this paper could be met, except possibly between the United States and Mexico. Theoretically additional data exchanges are feasible but highly difficult. Maybe it is now worthwhile to elaborate on some of the difficulties envisaged in new data exchanges.

A data exchange works best in countries having contiguous borders. This minimizes timing problems and indirect shipments that tend to confuse bilateral trade numbers, not only with the data exchange but also with other countries.

A bilateral exchange could not be strictly bilateral. Let's illustrate using the example of a Canada-Japan data exchange. Adjustments would need to be made to Canadian shipments bound for Japan via the United States in order to avoid double counting.

For example, in the Westbound flow (Canada to Japan). Assume the goods were shipped from Canada through the United States to Japan, and that the goods were entered rather than shipped under bond through the United States. In that case:

- The United States would record an import of Canadian origin goods
- Canada would record a domestic export to the United States (from the U.S. exchange)
- Japan would record an import of Canadian origin goods. The country of shipment should be Canada, not the United States,
- Canada would record a domestic export to Japan (from the Japan exchange - double counting).

It is difficult to identify double counting even within the U.S. – Canada data exchange. Trying to investigate and resolve potential double counting between two separate exchanges would raise even more difficult issues of confidentiality.

If, in the example above, the United States, rather than Canada exchanged data with Japan, this same shipment would create an undercount in U.S. exports. Because the shipment originated in Canada, not the United States, Japan would not consider it as within the data exchange. As a result, the United States would not have the re-export to balance the entered Canadian goods.

A data exchange requires simplicity of geography and transportation. In the case of the United States and Canada, most shipments between the two involve goods going directly from one of the partners to the other. More distant partners pose greater problems of timing and involvement of other countries.

A data exchange also requires willingness and readiness of the counterpart. Readiness not only means readiness from a technical perspective but also readiness of the institutional framework which often includes many players such as the statistical agency, customs, national banks, departments of finance, etc.

Plus, to be practical, a data exchange would be much more difficult without a common language and similar hours of work. In their absence, staff would not be able to simply pick up the phone and discuss a problem, issue or concern with their counterparts in the partner country. Much of the communication would have to be written. Verbal conversations would have to be scheduled to allow for the presence of interpreters or to have the necessary staff available outside of normal working hours. While e-mail can help alleviate these problems, it is often a poor substitute for a phone call.

To summarize, for Canada and the United States, we feel that the difficulties and costs associated with additional data exchanges, except possibly between the United States and Mexico, outweigh their potential advantages.

Let us now try to answer the second question, are there other options other than data exchange to improve statistics with other partners?

During the last decade as part of Customs modernization and simplification on both sides of the border there were and are still a number of promising initiatives, which may favorably influence the statistical programs. One is the G-7 initiative to standardize and simplify customs procedures.

The primary focus of the G-7 initiative is to establish common, standard, international data sets for “ordinary goods”; that is, those commodities that do not have any certificate, permit or licensing requirements of other government departments or agencies. The data sets identified to date are for Cargo Report (exports) and Export Declaration as well as for transit procedures. Furthermore, the G-7 members (Canada, United States, Japan, United Kingdom, Germany, France and Italy) are looking to adopt standard international codes for a number of data elements. In addition to data set development work is being undertaken in the field of Electronic Data Interchange (EDI) to develop common electronic messages for the data sets developed. The G-7 Initiative, at least in Canada and the United States ensures the requirements of the other government agencies such as the statistical departments are taken into account. This initiative, if successful and implemented, will have far reaching implications for the statistical systems of the participants by providing integrated export, import and in-transit information.

Another initiative that was considered by the North American customs agencies is the North American Trade Automation Prototype or NATAP. NATAP was a joint research and development initiative to implement article 5(12) of the North American Free Trade Agreement and support the Canada/U.S. accord on the shared border. It was to streamline the processing of commercial shipments by the customs administrations of the three countries and, like the G-7 initiative, envisaged standardized coding for customs transactions based on commercially available information. It was to cover exports, imports and in-transit movements of freight. Initial evaluation of the prototype from a statistical perspective indicated promise for the statistical system.

Conceptually, the G-7 or NATAP approaches, if broadly adopted by the trade community would go a long way towards meeting two of the three goals of a data exchange: reducing respondent burden and costs, and elimination of unexplained data discrepancies between different sets of trade statistics. For non-contiguous countries, the data quality and coverage gains of a data exchange are more likely to be offset by problems resulting from transiting trade, timing differences and imports via third countries. For the United States and Canada, these programs could provide supplementary information helpful for resolving issues such as transiting trade.

Conclusions and Recommendations

More than 11 years after implementation of the data exchange, it is safe to conclude that it is a success. All three of the original objectives, the elimination of export undercoverage, publication of one set of mutually agreed numbers, and reduction of response burden and cost, were achieved. However, the trading environment and the institutional customs environments, have changed since the inception of the data exchange. These changes challenge some of the fundamentals of the data exchange and its governing MOU. We recognize that these changes are inevitable but feel that as long as the present cooperation among the four signatories continues, these changes, challenges, and the problems they may cause are not insurmountable. It is safe to conclude that the advantages of this data exchange clearly outweigh the disadvantages.

However, some changes are needed. One issue we are working to address is how to ensure that each country has the information it needs to enforce its export laws and regulations. The current MOU meets only the needs of the statistical agencies. Resolution of this issue is proving to be complex and entangled with many legal issues. We are also exploring ways to exchange confidential company-specified data for statistical quality assurance purposes. Finally, we must find a way improve our ability to react to the rapidly changing trade environment.

Changing trading practices pose practical problems for the data exchange and raise broader conceptual issues. Goods from one partner that pass through the other partner on their way to somewhere else can result in undercoverage, attribution to the wrong country of destination or doublecounting in the derived export statistics. A solution must be found for these problems so that they do not undermine the integrity of the data exchange. However, we do not believe that these problems are insurmountable.

On a broader scale, the virtual elimination of tariffs and controls on trade between our two countries has led to trading practices that do not fit the traditional statistical model. For the United States, it is becoming nearly impossible to determine which goods are truly destined for U.S. consumption. With no tariffs or other fees, many companies no longer use the customs procedures we traditionally relied on in the past to distinguish between general imports and special trade imports (imports for consumption).

For Canada, the increasing integration of the U.S. and Canadian operations of multinational firms is altering the distribution of its exports. In 1970, 65 percent of Canadian exports were destined to the United States. By 2000, that proportion had increased to 87 percent. In company interviews, Statistics Canada found that many companies distribute their products from the United States, and as already noted, even when the final customer is known at the time of export, the goods are frequently shipped first to the United States. This makes it difficult for Canadian policy makers and business makers to identify their true markets and to accurately analyze export-related issues. These problems would have existed even without the data exchange, though possibly to a lesser extent.

Despite the success of the U.S.-Canada data exchange, in our view the potential for future exchanges is very limited. Even in U.S.-Canada trade, the data exchange's success in eliminating the undercoverage of exports to the other exchange partner has been partially offset by the problems created by transiting trade, particularly for Canada. The need to integrate every aspect of our statistics, from classification codes and data elements, editing and analytical

operations, and processing and release schedules means that it would be impractical to engage in many exchanges. The more distant the two partners, and the more other countries involved in shipments between the two partners, the more likely it becomes that issues related to transiting goods, timing and indirect trade would reduce, rather than improve, data quality. For the long term, efforts such as G-7 may prove a better approach to reducing costs to the trade and improving data quality for trade with other partners.