



UNITED NATIONS
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS

STATISTICS DIVISION
ECONOMIC STATISTICS BRANCH

<p>THE 8TH TRANCHE RESIDUAL BALANCE DEVELOPMENT ACCOUNT PROJECT ON PREVENTING TRADE MIS-INVOICING IN SELECTED AFRICAN COUNTRIES</p>

IMTS Bilateral asymmetries – how to measure, analyze, reduce and way forward
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Note by UNSD

Problem description

Bilateral asymmetries in trade data (both in goods and services) are a well-known phenomenon in official statistics.¹ Bilateral trade asymmetries occur when the reported exports from country A to country B do not match the reported imports to country B from country A. This note aims to supplement various publications on bilateral asymmetries and to offer step-by-step guidance, with templates and examples, for compilers who plan to undertake reconciliation studies to analyze and reduce recorded bilateral asymmetries through systematic and structured statistical analysis.

Statistical reasons for asymmetries in merchandise trade

Three main and well-known reasons for asymmetries in bilateral merchandise trade are:

- i. the application of different criteria of partner attribution in import and export statistics,
- ii. the use of CIF-type values in import statistics and FOB-type values in export statistics,
- iii. application of different trade systems in data compilation (General versus Special Trade System).

Other valid reasons why the reported exports of one country may not coincide with the reported imports of its partner country include:

- shipping time-lags across different accounting periods (quarters or years);
- goods entering Customs warehousing for several months;
- goods passing through third countries;
- lack of information or misspecification of re-exports and re-imports;
- improper declaration of product classification at the customs border, either entry or exit;
- differences in scope and coverage e.g. “merchanting” trade and trade value thresholds;²
- variations in data compilation and estimation methods, and confidentiality among other reasons.

¹ For more information, see <https://unstats.un.org/unsd/tradekb/Knowledgebase/50657/Bilateral-asymmetries>

² Possible discrepancies in flows of merchandise trade and BOP trade in goods due to Manufacturing services.

Besides conceptual and practical causes of asymmetries, there can be multiple other reasons for valuation differences, including undetected under and over-declaration of values, different value estimates for transactions without valuation such as related party transactions and different views on the exclusion or inclusion of commodities (scope). In these cases, compensating adjustments are needed if the differences are significant.

The problem of trade mis-invoicing has not been thoroughly analyzed while rigorously accounting for other causes of bilateral trade asymmetries.³ Furthermore, there are not many studies on trade data asymmetries due to other reasons as specified above in many countries and especially in Africa. More studies on trade asymmetries, including trade mis-invoicing or mis-pricing are required to explain the asymmetries.⁴

Towards the reduction or analysis of bilateral asymmetries

International Merchandise Trade Statistics: Concepts and Definitions 2010 (IMTS 2010)⁵ was adopted by the UN Statistical Commission in 2010 and contains following recommendations regarding partner attribution:

- i. in the case of imports, the country of origin should be recorded,⁶
- ii. in the case of exports, the country of last known destination should be recorded.

However, considering the limitation of this approach, the inclusion of country of consignment (as additional partner attribution) is recommended for imports and encouraged for exports.

Furthermore, IMTS 2010 updated a few recommendations and included some encouragements that are relevant to the study of some causes of asymmetries, among others:

- Partner attribution: It is recommended to use the economic territory of the trading partners as the basis upon which the statistics on trade by partner are compiled (para. 6.28)⁷, i.e., the use of data based on general trading systems is recommended.
- FOB-type value of imported goods: Countries are encouraged to compile FOB-type value of imported goods as supplementary information (para. 4.8).
- Importance of appropriate valuation of goods: An agency responsible for the overall compilation of trade statistics and the agencies that collect data should cooperate to provide reliable valuation of goods in all cases, especially for problematic categories and irrespective of whether their prices are available. IMTS 2010 (para 4.4) recommends that countries adopt the World Trade Organization Agreement on Customs Valuation as the basis for valuation of their international merchandise trade for statistical purposes.
- Quantity information: Improved compilation and reporting of quantity measurement and information, including conversion factors is very important.

³ Illicit financial flows (IFFs) and also BOP issues include many facets other than trade mis-invoicing.

⁴ For IFFs, see for example: https://www.oecd.org/corruption/Illicit_Financial_Flows_from_Developing_Countries.pdf

⁵ For more information, see [https://unstats.un.org/unsd/trade/eg-imts/IMTS%202010%20\(English\).pdf](https://unstats.un.org/unsd/trade/eg-imts/IMTS%202010%20(English).pdf)

⁶ It is recommended to use the provisions of the Revised Kyoto Convention for determining country of origin.

⁷ The paragraphs refer to the corresponding paragraphs in IMTS 2010.

- Conducting reconciliation studies: However, an important factor in these asymmetries is trading partner information which may be a challenge to align owing to conceptual as well as practical factors.

Bilateral asymmetries can be explained more precisely if information about the country of consignment is present and if imports are also reported in FOB valuation.

- i. Compiling trade data by the country of consignment⁸

Conceptually, compiling trade data by the country of consignment offers the possibility of obtaining consistent statistics and reasonable comparability since it promotes the recording of the same transactions by importing and exporting countries. This approach should result in more bilaterally symmetrical data since goods recorded as imports by one country are to be recorded as exports by another. This, however, implies that the documentation defining the consignment agreement is available and used by trade data compilers of both countries. However, customs are focused on the documentation related to customs matters (customs value, origin of goods, goods specifications for environmental, health etc. reasons) and might not be a good source of administrative data regarding the country of consignment. It is also not clear yet whether enterprise surveys of international trade will result in availability of good quality import/export data by country of consignment. Clarification of this matter should be high on the agenda for future work aiming at improving international trade statistics.

- ii. Comparing trade data in terms of the same valuation

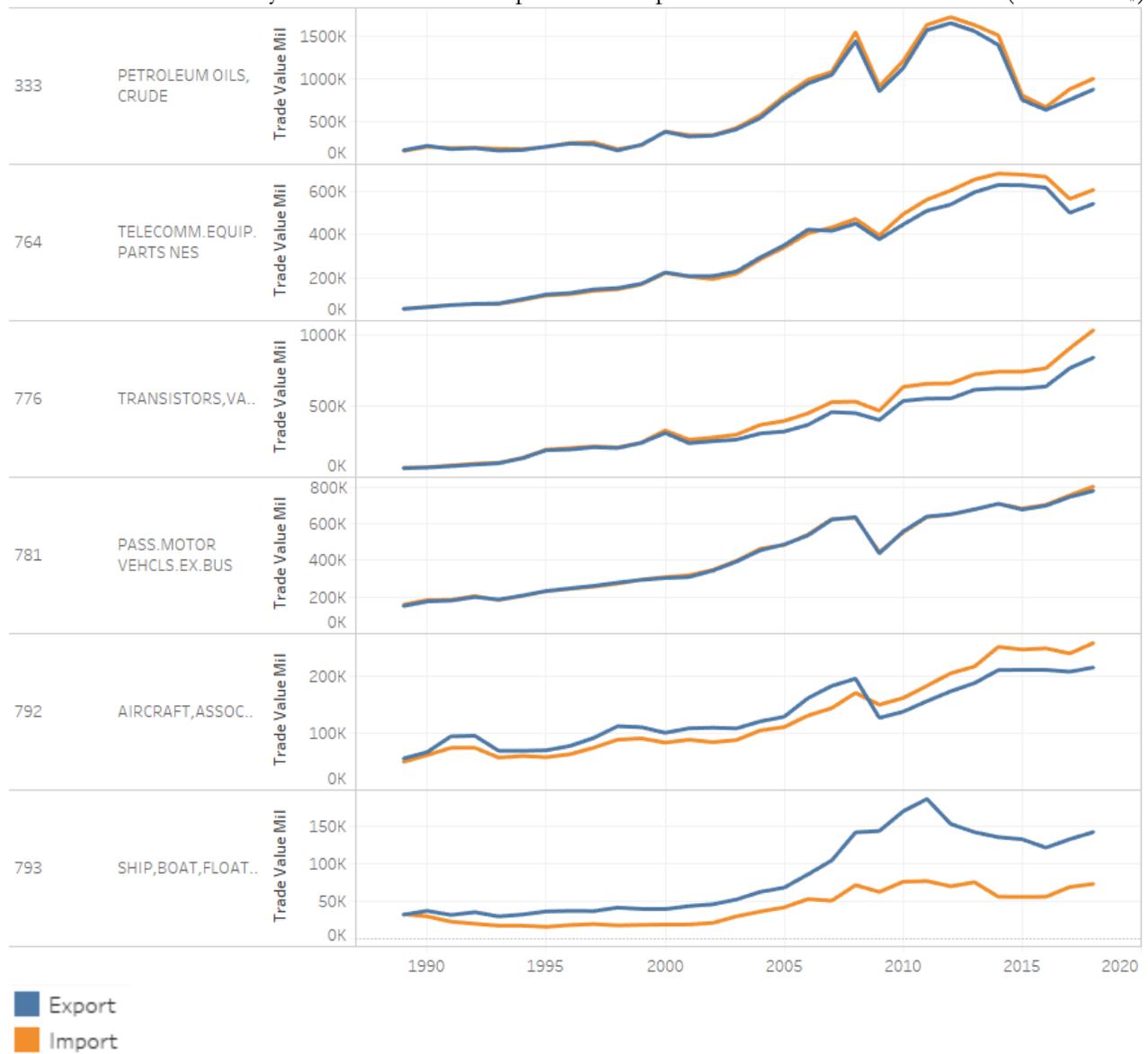
FOB-type value of imported goods: Countries are encouraged to compile FOB-type value of imported goods as supplementary information. Comparing imports with mirror statistics in terms of the same valuation will remove differences due to valuation and facilitate studying asymmetries due to other causes.

Global asymmetries

From three main sources of asymmetries; only valuation and trade system would impact trade balance at global level. The illustration below shows global asymmetries in top trade commodities: crude petroleum, electronical components, passenger vehicles and aircraft/ships. In general, global imports are higher than exports (partly due to valuation of CIF/FOB), however, it does not apply to trade in ships. This may be due to under-reporting at importer side (and this underlines the important of non-customs sources).

⁸ It should be stressed that attribution of imports to the country of consignment creates a set of trade statistics with different economic meaning. For example, if the US would record imports on the country of consignment basis then all goods which were shipped from China to HK and changed their legal status there (e.g., sold to HK resident but consigned afterwards from HK to the US) would be recorded by the US as imports from HK while their origin will be still attributed to China. The US trade balance with China, as seen through so redefined US import statistics, would be greatly improved (but worsened with HK).

Illustration 1. Global asymmetries between exports and imports for selected commodities (in million \$)



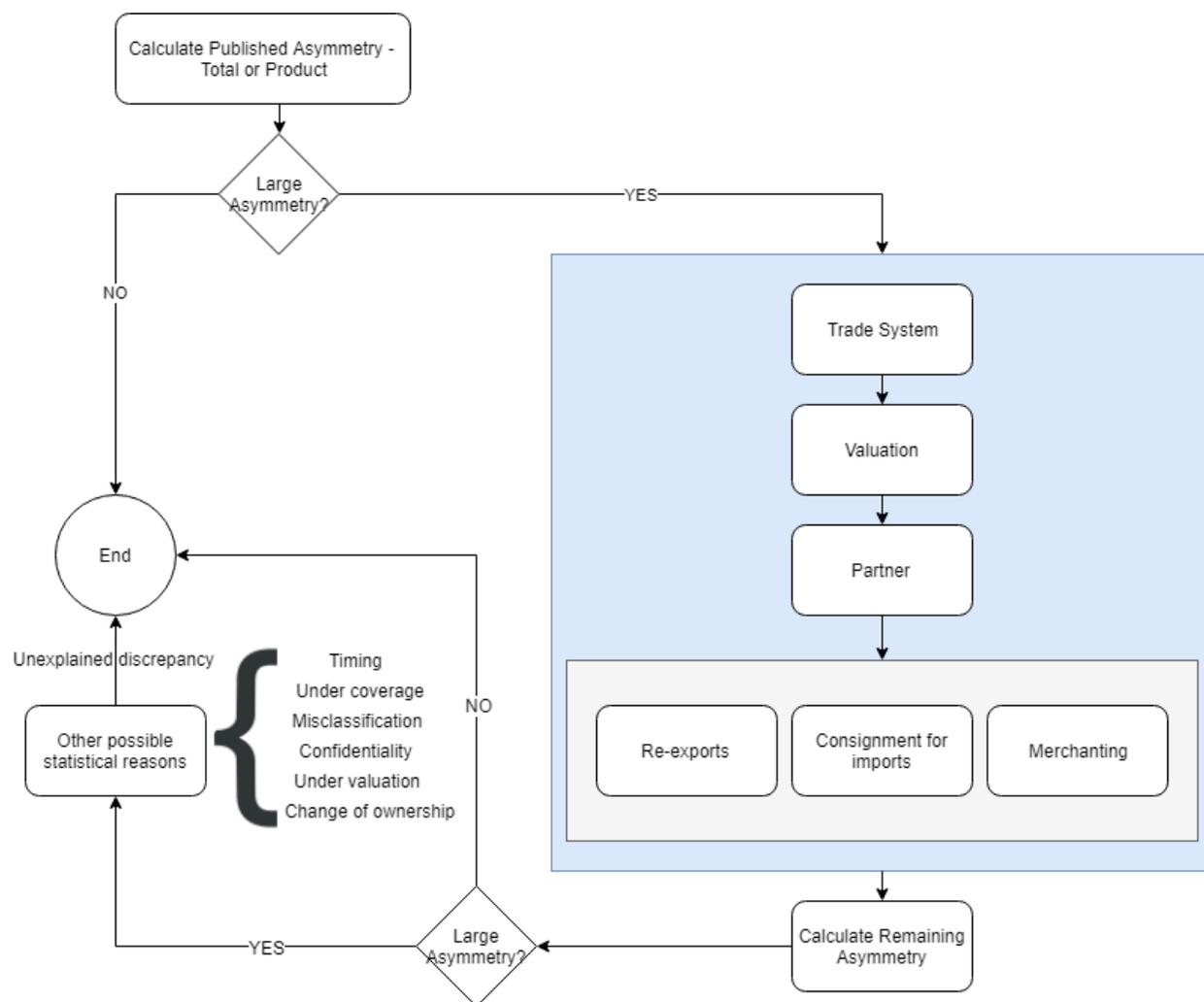
Source: UN Comtrade estimates

From examples above, many commodities can be impacted by asymmetries whether they are primary commodities or manufactured goods which are mostly exported by developing and developed countries, respectively. Even a country with good national statistical system and fully implemented latest recommendations cannot eliminate all trade asymmetries with its trading partners. Therefore, bilateral asymmetries are indeed a global concern and not only limited for those exporters of primary commodities.

Guide for analyzing bilateral asymmetries⁹

As part of quality assurance, countries are recommended to conduct regularly reconciliation studies with their major trading partners. To start, compilers may use UN Comtrade database¹⁰ which contains global repository of trade data and metadata. This can be used to quickly identify large discrepancies in certain commodities and partner countries. Please note that available data and metadata in UN Comtrade may be incomplete for fully analyzing and reducing bilateral asymmetries (i.e., no information on confidentiality technique, no re-exports data), therefore compilers should supplement that missing information with data from their counterpart.

Illustration 2. Flow chart in analyzing and reducing bilateral asymmetries



⁹ The case study is adapted from Statistics Canada (2018), Comparing Canada's and China's bilateral trade data. URL: <https://www150.statcan.gc.ca/n1/en/pub/13-605-x/2018001/article/54962-eng.pdf?st=DUPYB3kM>

¹⁰ <https://comtrade.un.org/>

Step I. Check existence of bilateral asymmetries

Compute an indicator of published asymmetries (PA) – starting with the total exports and imports or selected commodity groups with World and/or main trading partners.

The published asymmetry (PA) is simply the difference between the imports and exports of reporting country R and partner country P. For the calculation, it needs to be considered that there are two directions of trade.

$$\text{InboundPA} = \text{R's imports from P} - \text{P's exports to R}$$

$$\text{OutboundPA} = \text{R's exports to P} - \text{P's imports from R}$$

Note: Partner country P can be all trading partner countries (partner World). It may be impossible to accurately calculate published asymmetry at this level because it implies that data for all trading partners must be available.

Template 1: Published Asymmetry

Commodity Group	Inbound trade				Outbound trade			
	Imports R	Exports P	Difference	%	Exports R	Imports P	Difference	%
Total								
Commodity 1								
Commodity 2								
...								

Example: Trade between Canada (CAN) and China (CHN)

The table of bilateral trade between Canada (as reporting country R) and China (as trading partner country P) shows significant differences between imports and exports. Thus, bilateral asymmetry exists and needs to be assessed further. In this example, inbound trade covers CAN imports and CHN exports, while outbound trade means CAN exports and CHN imports.

Table 1: Bilateral trade in goods in 2016 (in billion \$)

Commodity Group	Inbound trade				Outbound trade			
	Imports CAN	Exports CHN	Difference	%	Exports CAN	Imports CHN	Difference	%
Total	48.6	27.3	21.3	43.8	15.8	18.3	2.5	15.8
	3.3	1.3	2.0	60.6				
					0.1	0.8	0.7	95.0

Note: The basis for the percentage is CAN imports and exports, respectively.

Step II. Examine sources of differences

II.1 Trade system

Territorial coverage can contribute to a significant asymmetry especially in certain products. To check the trade system (general vs. special trade system¹¹) used by trading partner – including full breakdown of flows – the compiler may consult explanatory notes in UN Comtrade or results of the metadata survey conducted by UNSD.¹²

Template 2: Comparing Trade System

Item	Reporting country (R)	Trading partner (P)
Trade System	General/Special	General/Special
Re-exports	YES/NO	YES/NO
Re-imports	YES/NO	YES/NO
Note		

Example: Trade between CAN and CHN

¹¹ For an example, see MEDSTAT II: Asymmetry in foreign trade statistics in Mediterranean partner countries <https://unstats.un.org/unsd/tradekb/Knowledgebase/50231/Asymmetry-in-foreign-trade-statistics-in-Mediterranean-partner-countries>

¹² See <https://comtrade.un.org/survey/Reports/byQuestion> Section “Trade System”

Both Canada and China use the General Trade System. No further adjustment necessary. Please note that CAN is able to identify flows of re-exports and re-imports which would be useful in bilateral asymmetry adjustments.

Table 2: Trade System – Territorial Coverage

Item	Canada	China
Trade System	General	General
Re-exports	YES	NO
Re-imports	YES	NO
Note		Special trade system was applied 1980-1994. General trade system since 1995.
Special Zone	Goods stored in bonded warehouses are included in the customs statistics.	Due to the preferential policies of trade and the need of customs supervision, China has a number of special regulatory areas, including: special economic zones, economic and technological development zones, high-tech development zones, bonded zones, bonded warehouses (including outbound supervision warehouses), export processing zones, bonded logistics zones, bonded port areas, bonded logistics centers (type A, type B), etc. When goods under these special zones are traded with foreign countries, these transactions are included in the customs statistics.

II.2 Valuation

The difference in imports and exports could also be due to different valuation concepts. Generally, Cost, insurance and freight (CIF) valuation is used for imports and Free on board (FOB) valuation is used for exports. However, it is recommended to report the FOB value also for the imports. It should be checked which valuation is used by the countries of interest. Again, compilers may consult results of the metadata survey conducted by UNSD.¹³

Template 3: Comparing Valuation

Flow	Reporting country (R)	Trading partner (P)
Imports	FOB/CIF	FOB/CIF
Exports	FOB	FOB

¹³ See <https://comtrade.un.org/survey/Reports/byQuestion> Section “Valuation”

Example: Trade between CAN and CHN

Between CAN and CHN, only the CHN imports and CAN exports use different valuation.

Table 3: Canada-China valuation in imports and exports

Flow	CAN	CHN
Imports	FOB	CIF
Exports	FOB	FOB

Depending on available data sources, there are multiple ways of estimating FOB from CIF. Compilers may consult IMTS 2010 Compilers Manual Chapter 14 on Valuation¹⁴ or Supplement to the Compiler's Manual (2008) Chapter 4 Part D on Feasibility of imports FOB.¹⁵

Methods for estimating freight and insurance on imports

- Option 1.** Extract data from IMTS
- Option 2.** Collect, from importers, data on freight and insurance premiums paid
- Option 3.** Collect freight data from resident operators and branch offices or agents of non-resident operators
- Option 4.** Analyze trade flows, freights and insurance rates
- Option 5.** Use a ratio approach
- Option 6.** Extrapolate from residents' experience

II.3 Partner country attribution – indirect trade

Goods can be shipped directly from one country to another which simplifies recording and does not result in asymmetry. However, goods shipped indirectly, through third or fourth country, whether commercial transactions occur or not, may become major source of asymmetry in bilateral trade. An exporting country may not know an actual final destination country at the time of exportation whereas an importing country should be able to identify country of origin.

Partner countries for imports and exports can be defined in various ways. For imports, the country of origin and the country of consignment (also called country of exports) can be distinguished. For exports, it is important to consider the country of final known destination and identification of re-exports flow (see trade system above). Almost in all cases the information of the country of consignment is crucial for assessing differences in trade.

Recording partner countries

“A tractor was manufactured in country A was sold and shipped to a wholesaler in country B for storage in period P. This wholesaler then sold and shipped the tractor to a customer in country C for farming in period P1.”

¹⁴ <https://unstats.un.org/wiki/display/I2CG/Chapter+14++Valuation>

¹⁵ <https://unstats.un.org/unsd/tradekb/Knowledgebase/50002/IMTS-Supplement-to-the-Compiler's-Manual-2008>

- In period P, Country A would record export to country B. And Country B would record import from A (as both country of origin and consignment)
- In period P1, Country B would record export to country C. And Country C would record import from A (as country of origin) and from B (as country of consignment)

The partner country attribution should be categorized: consignments for imports, re-exports and merchanting¹⁶.

Template 3: Comparing Partner Country Attribution by Flow

Type	Flow	Reporting country (R)	Trading partner (P)
Trade	Imports	Country of Origin (COO) and/or Country of Consignment (COC)	Country of Origin (COO) and/or Country of Consignment (COC)
	Exports	Country of Final Known Destination (COD)	Country of Final Known Destination (COD)
	Re-exports	Country of Final Known Destination (COD) and/or Country of Origin of Re-exports (COOR)	Country of Final Known Destination (COD) and/or Country of Origin of Re-exports (COOR)
Merchanting	Buy / Sell	Country of Buyer (COB) and/or Country of Seller (COS)	Country of Buyer (COB) and/or Country of Seller (COS)

Note: When analyzing bilateral asymmetries with all trading partner countries (partner World) or main trading partners, compilers must identify partner country attributions for each partner country. Different application of partner attribution may impact adjustment methodology.

Example: Country of consignment between CAN and CHN

Illustration 2 shows what is meant by the country of consignment and how differences can occur if the country of consignment is not reported along with the imports and exports. For example, a mobile phone could be exported directly from China to Canada. In this case, it is reported in China as an export to Canada and in Canada as an import from China. However, the phone could also arrive in Canada via the United States (US). If the US is not reported as country of consignment, the following trade flow is reported and leads to imprecision. In China, the phone could be reported as export to the US. In the US, the phone would be an import from China and an export to Canada. And in Canada, the mobile phone would be an import from the US. However, it should be reported as an import from China with the US as country of consignment.

¹⁶ Merchanting is defined in BPM6 (paragraphs 10.41 to 10.49) as the purchase of goods by a resident, of the compiling economy, from a non-resident followed by the subsequent resale of the goods to another non-resident without the ever goods entering the residents' compiling economy.

Illustration 3: Trade flows with a country of consignment

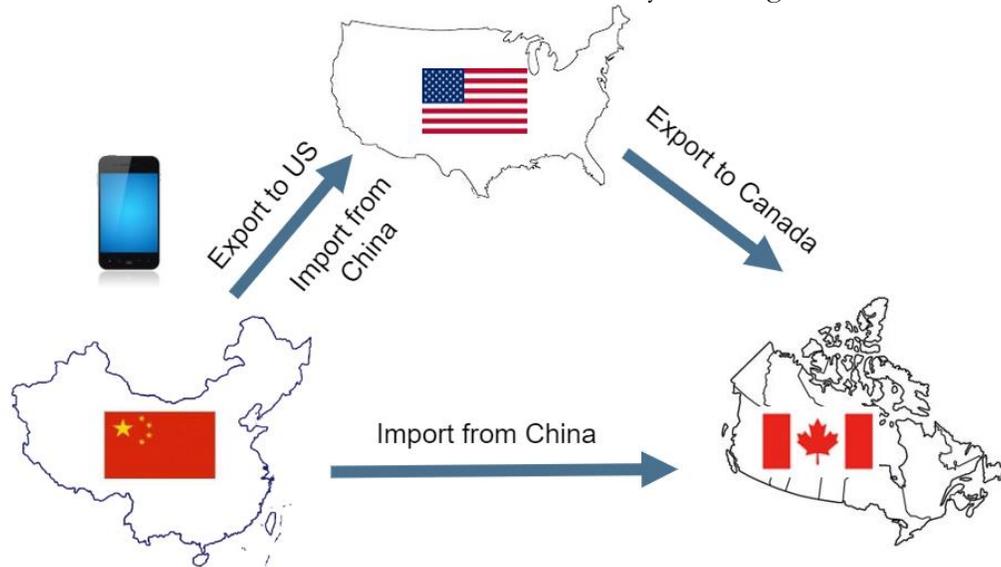


Table 4: Canada-China Comparison in Partner Country Attribution

Type	Flow	CAN	CHN
Trade	Imports	COO and COC	COO and COC
	Exports	COD	COD
	Re-exports	COD	COD
Merchanting	Buy / Sell	N/A	N/A

Table 5: Top ten countries of consignment – countries of export(consignment) other than China

	Import values (billion \$)	Percent of total (%)
Total	20.620	100.0
Countries of consignment:		
United States	16.660	80.8
Hong Kong	2.574	12.5
Mexico	351	1.7
Taiwan	193	0.9
Japan	113	0.5

II.4 Timing

Differences in imports and exports of partner countries can occur, for example, because of time lags in shipments or seasonal trade cycles like high trade in the end of a year. The reasons for a time lag in the reporting of outgoing and incoming goods can be different across countries. Depending on the reasons, methods for estimating the difference due to a time lag should be derived.

Template 4: Estimating Impact of Timing

	(billion \$) (%)
R total imports from P	\$
Estimate of the import value impacted by time lag	\$
Estimate as percent (%) of R total imports	%

The method to estimate time lags would depend on dominant mode of transport. In case of sea transport, the average shipping days in specific commodity groups from P to R can be obtained from transport operators. In addition, transport documents such as bills of lading may contain information when the goods are shipped from port of departure. Time lags can be also attributed to the trade system applied by R. For example, if R excludes Customs Warehousing in its trade statistics, any goods exported by P and then stored in Customs Warehousing would not be recorded until they are released to free circulation months later.

Example: Trade between CAN and CHN

The mode of transport for a high percentage of the trade of good between Canada and China is sea transport. Therefore, differences could be due to a time lag in shipments.

Table 6: Difference in trade due to different timing

CAN total imports from CHN in million	\$48,593
Estimate of the import value in million impacted by time lag	\$234
Estimate as percent (%) of CAN total imports	0.5%

In the example, 0.5% of the difference can be explained by a time lag in reporting.

II.5 Other sources

Besides the three mentioned sources for bilateral asymmetries, the differences in exports and imports could also be due to mark-ups, reporting errors, coverage problems or operational differences.

Template 5: Comparing Other Relevant Metadata

Concepts and Definitions	Reporting country (R)	Trading partner (P)
Commodity Coverage (exclusion/inclusion)		
(Legal) informal trade		
Mark-ups – via third country		
Reporting errors		
Misclassification		
Confidentiality		

Change of ownership		
Exchange rate		
Etc.		

Step III. Applying Adjustment and Conduct Initial Analysis

An indicator of remaining asymmetries (RA) can be computed by applying methodological related adjustments (please note this depends on national circumstances). For an example, CIF/FOB adjustment is not applicable for inbound trade in the example because Canada imports and China exports are both in FOB-type basis.

<p>The remaining asymmetry (RA) is the difference that remains after adjusting the published asymmetry. Other relevant adjustments need to be added, if significant.</p> <p style="text-align: center;">InboundRA = R's imports from P – R's imports of P's goods from countries of export (consignment) other than P – CIF/FOB valuation estimate – Time lag estimate – P's exports to R – P's re-exports of foreign goods to R</p> <p style="text-align: center;">OutboundRA = R's exports to P – R's re-exports of foreign goods to P – P's imports from R – P's imports of R's goods from countries of export (consignment) other than R – CIF/FOB valuation estimate – Time lag estimate</p>

Template 6: Adjustment Table and Remaining Asymmetry

		R imports	P exports
Original Data	Official data	a	b
	Published asymmetry		a-b
Adjustment	Indirect Trade	a1	
	Valuation	a2	
	Trade System	a3	
	Timing	a4	
	Re-exports		b1
	Merchanting	a5	b2
Adjusted Data	Adjusted official data	c=a-a1-a2-a3-a4-a5	d=b-b1-b2
	Remaining asymmetry		c-d

Examples: Trade between CAN and CHN

In the example, the difference between CAN imports and CHN exports is higher than the differences in the outbound trade. However, most of the difference can be explained when the country of consignment is considered. For the inbound trade, the CIF/FOB conversion does not have to be considered because CAN imports are also reported in FOB valuation.

Table 7: Bilateral inbound total trade – reported and adjusted (in billion \$)



Inbound Trade	CAN imports	CHN exports
Official data	48.6	27.3
Published asymmetry		21.3
Adjustment: *CAN imports of CHN goods from countries of export (consignment) other than CHN	20.7	
Adjustment: *CHN re-exports		0.2
Adjustment: *Timing	0.2	
Adjusted official data	27.7	27.2
Remaining asymmetry		0.5

In the same way as the methodology is used for total trade, it can also be used for commodity breakdowns.

Table 8: Bilateral inbound trade of cellular phones – reported and adjusted (in million \$)



Inbound Trade	CAN imports	CHN exports
Official data	3,329	1,362
Published asymmetry		1,967
Adjustment:		
*CAN imports of CHN goods from countries of export (consignment) other than CHN	1,280	
Adjusted official data	2,049	1,362
Remaining asymmetry		687

For the outbound trade, both CAN re-exports as well as the CIF/FOB conversion need to be taken into account.

Table 9: Bilateral outbound trade – reported and adjusted (in billion \$)



Outbound Trade	CAN exports	CHN imports
Official data	15.8	18.3
Published asymmetry		-2.5
Adjustment:		
*CAN re-exports	0.6	
*CHN imports of CAN goods from countries of export (consignment) other than CAN		3.5
*CIF/FOB estimate		1.2
Adjusted official data	15.2	13.6
Remaining asymmetry		1.6

The outbound trade can also be broken down by commodities.

Table 10: Bilateral outbound trade of light vehicles – reported and adjusted (in million \$)



Outbound Trade	CAN exports	CHN imports
Official data	548	6
Published asymmetry		542
Adjustment:		
*CAN re-exports	544	
*CHN imports of CAN goods from countries of export (consignment) other than CAN		3
*CIF/FOB estimate		0
Adjusted official data	4	3
Remaining asymmetry		1

Step IV. Unexplained discrepancies

Tables above show that the adjustments help to explain a large part of the published asymmetry. However, even after the adjustment asymmetry remains which could be due to the other issues that are not considered in the formula. Furthermore, the adjustment can lead to larger differences (see Table 11) or asymmetries can still not be explained (see Table 12).

Table 11: Bilateral inbound trade of video game consoles and machines – reported and adjusted (in million \$)



Inbound Trade	CAN imports	CHN exports
Official data	500	804
Published asymmetry		-304
Adjustment:		
*CAN imports of CHN goods from countries of export (consignment) other than CHN	286	
Adjusted official data	214	804
Remaining asymmetry		-590

Table 12: Bilateral outbound trade of durum wheat – reported and adjusted (in million \$)



Outbound Trade	CAN exports	CHN imports
Official data	0	213
Published asymmetry		-213
Adjustment:		
*CAN re-exports	0	
*CAN imports of CHN goods from countries of export (consignment) other than CAN		0
*CIF/FOB estimate		9
Adjusted official data	0	204
Remaining asymmetry		-204

At this point, more detailed data at enterprise level is required for further analysis to explain the discrepancies (i.e., reporting errors). As the first step, relevant raw data from original customs declarations (or non-customs data) need to be retrieved to verify its accuracy. If needed, compilers

should contact the enterprises for cross checking. Countries with land border should also consider measuring the size of informal cross border trade which may indicate under-reporting in certain commodities.

Way forward: some conclusions/points for discussion

As part of bilateral asymmetrical studies, strategies and methods can be developed to conduct reconciliation exercises¹⁷. Strategies can include:

- Focus on reconciling trade data with main partners or for targeted products.
- Apply the templates outlined in this document; if necessary adjust the template based on national circumstances.
- Obtain additional data items that are not normally compiled for trade statistics but crucial to analyze and reduce bilateral asymmetries.
- Enhance estimation methods and using additional data sources e.g. sample surveys.
- Undertake closer inter-agency collaboration (including Customs Administration, Central Bank, National Statistical Office) and trade associations in solving discrepancies or improving data quality.
- Finally, follow up large unexplained discrepancies in case-by-case basis with relevant agencies.

It is recommended that the result of reconciliation studies be shared, preferably on the UNSD website. The analysis on bilateral asymmetries is useful for the global initiative in balancing trade statistics as one of the components in estimating Trade in Value Added (TiVA)¹⁸ and analyzing Global Value Chains (GVCs).

¹⁷ For a selection of examples in Mediterranean countries, see MEDSTAT II: Asymmetry in foreign trade statistics in Mediterranean partner countries <https://unstats.un.org/unsd/tradekb/Knowledgebase/50231/Asymmetry-in-foreign-trade-statistics-in-Mediterranean-partner-countries>

¹⁸ <http://www.oecd.org/sti/ind/measuring-trade-in-value-added.htm>