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Usable Data for Economic Policymaking and Research?

The Case of Lao PDR's Trade Statistics

by

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Executive Summary

This report assesses the quality of Lao PDR's trade statistics by comparing Lao PDR's export/import data with its trade partners' import/export data (mirror data). While the mirror technique is constrained by the fact that partners' data also can have some problems, it is a useful method to obtain a snapshot of the quality of trade data.

First of all, it should be recognized that publicly available Lao PDR statistics compiled by the Ministry of Industry and Commerce (MIC) is not consistent with the Harmonized System (HS) classification. It is advisable that Lao PDR should release the HS classification-based trade data compiled by the Ministry of Finance.

The overall quality of Lao PDR's export data is relatively good compared with its import data. Most differences between Lao PDR's and trade partners' trade statistics can be explained by mineral-related and wood-related products. While the exports of minerals and wood-related products are supposed to be effectively managed by the Lao government, there is a possibility that some of those products are exported to neighboring countries outside the control of the Lao government.

There is a large concern about the quality of Lao PDR's import data. The total of Lao PDR's imports from major trading partners is less than half of the total of those partners' exports to Lao PDR. Lao PDR's imports of fuel and gas, vehicle and parts, and construction materials such as steel from Thailand and its imports of vehicle and parts and machinery products from China do not seem to be correctly reflected in Lao PDR's statistics.

This unsatisfactory quality of import statistics has important policy implications. First, there is a large loss in tariff revenue. If the import value recorded by the Lao Government becomes comparable to its trade partners' value of exports to the country, Lao PDR's tariff revenue will be more than doubled. It should also be recognized that Lao PDR's trade balance "appears" good when calculated using MIC statistics, while the trade balance seems to be worse based on calculations using the trade partners' statistics and balance of payment statistics compiled by the Lao Central Bank.

Accurate data collection by the border agencies and compilation of quality trade statistics are essential for effective policy making as well as for revenue collection. Just like all other developing countries, Lao PDR also needs to examine and improve the quality of trade statistics to have better trade policies and economic policies, in general.

1. Introduction

Countries should pay attention to the quality of macroeconomic statistics to have an accurate basis for policy making. Trade statistics is one of the core statistics that countries need for effective policy planning and implementation on various fronts. In drawing up trade policies, including Free Trade Agreement (FTA) negotiations and implementations, quantitative-based analyses are necessary to come up with negotiating positions and to assess the impacts of an FTA. Accurate trade statistics is also necessary for effective economic surveillance conducted at the domestic, regional and global level. Most international databases publish Lao PDR's trade data based on estimates using partners' statistics and the majority of research on the Lao economy usually uses such data.¹ Lastly, from the government's point of view, accurate data collection by border agencies (e.g. the customs office) is critical for revenue collection.

Such a need for improving the quality of trade statistics is especially urgent for developing countries deeply involved in regional economic integration schemes, such as Lao PDR.² The country is a member of various FTAs such as the ASEAN Free Trade Agreement (AFTA), the ASEAN-China Free Trade Agreement (ACFTA) and the ASEAN-Japan Economic Partnership Agreement (AJEPA). The full-fledged international economic surveillance under the Chiang Mai Initiative Multilateralization (CMIM)³ will also start soon. Despite the level of development and resource constraints, it is critical for countries like Lao PDR to assess and improve the quality of trade statistics.

This paper conducts a quality assessment of Lao PDR's trade statistics through the mirror technique, identifies traded commodities that are plagued with huge statistical discrepancies, and draws out the implications of discrepancies for tariff revenues and the trade balance. A "mirror" technique is one useful way to examine the quality of trade statistics. It is a method to assess the quality of a reporting country's trade statistics by comparing its import/export data with its trade partners' export/import data (mirror data). While this technique has weaknesses as pointed out in other literature (Yeats, 1995; Hummels and Lugovskyv 2006), so long as researchers recognize them, using the mirror technique enables us to examine the quality of trade statistics as well as the theories behind the technique.

In a mirror trade analysis, a partner country that has reliable data reporting and compilation should be chosen. A more qualified partner in the analysis, then, is a developed country, which is expected to have more advanced systems, among others, that cater to data reporting and compilation. Nevertheless, it should be noted that no country produces perfect trade statistics. Therefore, we should also be aware of the possibility that the discrepancy in trade statistics between a reporting county and its partner may result from problems with the data on the partner's side.

¹ Anderson et al. (2009) describes the problems of using trade statistics compiled by Lao authorities. For the extent of "informal" cross-border trade, see UNDP (2006, 25).

² Among the ASEAN members, Lao PDR and Myanmar are those whose available data in international database like the International Trade Center (ITC) are mirror data only (see available data at ITC's Trade Map at <http://www.trademap.org/stDataAvailability.aspx>). Lao PDR's mirror trade statistics can also be obtained from the Direction of Trade Statistics (DOTS). The United Nations ComTrade Database does not compile mirror statistics, therefore, those of Lao PDR's trade partners' data can be compiled to set-up Lao PDR's mirror data.

³ The CMIM came into effect in March 2010 (UNESCAP, 2010).

The structure of the paper is as follows. Section 2 gives a brief overview of Lao PDR's available trade statistics and discusses the main issues of those available statistics; Section 3 presents the methodology for assessing trade data quality; Section 4 assesses the quality of Lao PDR's export and import data; and Section 5 illustrates the policy implications of unsatisfactory trade statistics.

2. Issues of Lao PDR's Trade Statistics

Before starting a detailed analysis of the quality of trade statistics using the mirror technique, it is useful to identify major limitations of Lao PDR's trade statistics. Quality assessment is largely constrained by the availability of data. Below are the major issues of Lao PDR's trade statistics compiled by The Ministry of Industry and Commerce (MIC).

2.1 Responsible Authorities

MIC compiles the official trade statistics of Lao PDR. The trade statistics are available on the MIC website.⁴ While the Cooperation and Investment Division was responsible for compiling the statistics until the 2005/6 fiscal year⁵, the Department of Import/Export became the responsible office with regard to trade statistics after 2006/7. As we will see later in detail, the change in the responsible division within the MIC led to the change in commodity classification methodology. In fact, there was a difference in terms of commodity classification before and after 2006/7. Furthermore, trade statistics compiled by MIC (both under the Cooperation and Investment Division and the Department of Import Export) have not been based on the harmonized system (HS) classification widely used internationally.

Partly because of this problem, recently, the Ministry of Finance (the Tax Department) started to produce its own trade data that are consistent with the HS classification. As a result, it is said that the data produced by the two ministries are sometimes inconsistent. However, the data produced by the Ministry of Finance are raw and unpublished. Thus, the only available trade statistics compiled by the Lao PDR authorities are those compiled by MIC, whose classification is different from international standards.

2.2 Commodity Classification

Commodity classification in Lao PDR's trade statistics has several inherent inconsistencies. First, the commodity classification for both export and import is not identical across time. In particular, classification used before and after 2006/7 are significantly different. In 2006/7, Lao PDR started to report commodities in broader categories broken down into subcategories. Even after 2006/7, some commodity groups (such as Diamond) appear only in some years, not all years. And it is unclear whether the abolition of a certain classification (e.g. Diamond) in a certain year means that there was no trade in such a commodity group in that year or that the item was classified somewhere else. Second, the major categories and sub-categories under exports and

⁴ <http://www.moic.gov.la/statistic.asp>

⁵ The Lao fiscal year runs from October to September. For details, see Section 2.3.

imports also differ significantly (Table 1; for the summary of the latest trade data compiled by MIC, see Appendix 1).

The major differences between Lao PDR's data and those of its trade partners, which makes a comparison between the two difficult, are the following. First, Lao PDR's trade statistics are not recorded in HS classification while that of partners are recorded in HS codes. Lao PDR uses its own Roman-numerical classification. Therefore, for the purpose of comparing Lao PDR's export/import to/from major partners (Thailand, Viet Nam, China, United States, Switzerland) and the latter's import/export from/to Lao PDR at the 2-digit level, we find the commodity group in Lao PDR's classification under which a certain commodity group in HS classification is possibly covered (see Table 2). Second, Lao PDR's trade statistics (import side data) have categories depending on the purposes of trade (e.g. trade for projects and investment purposes), irrespective of actual products imported under this mode. As a result of this, the same sub-categories appear under different large categories. For example, "fuel and gas" appear both under "products under government administration" (I-1) and under "products imported for the projects and investment" (IV-4).

Table 1: Commodity Classification of Lao PDR's Export and Import

EXPORT			IMPORT			
I		Wood and Wood Products	I		Products under Government Administrative	
	I-1	Finished Wood Products		I-1	Fuel and Gas	■
	I-2	Haft-finished wood products		I-2	Vehicle and Its parts	●
	I-3	Logs		I-3	Electricity	
	I-4	Wood Products	I-4	Raw Materials imported for Garment		
II		Agricultural Products + Live Animals	I-5	Diamond		
	II-1	Agriculture	II	General products		
	II-2	Live feeding animals	II-1	Food stuffs		
III		Electricity	II-2	Office stationary		
IV		Industry-handicrafts	II-3	Construction materials	▲	
	IV-1	Industry	II-4	Electrical equipments and appliances	+	
	IV-2	Handicraft	II-5	Medicines		
V		Forestry Products	II-6	Clothing and dairy products		
VI		Minerals	II-7	Products for agricultural purpose	○	
VII		Diamond	II-8	Products imported for industry production purpose	◆	
VIII		Wasted Items	II-9	All kinds of vehicle spare parts	●	
IX		Other Products	II-10	Luxury products		
	***	Border Trade	II-11	Other products		
Total			III	Border trade		
			IV	Products imported for the Projects and Investment		
			IV-1	Construction materials	▲	
			IV-2	Products supply to industry sectors	◆	
			IV-3	products supply to agricultural sectors	○	
			IV-4	Fuel and Gas	■	
			IV-5	Vehicle and Its parts	●	
			IV-6	Electrical appliances	+	
			IV-7	Consuming products		
			IV-8	Others		
			V	Products imported for the International Organizations		
			VI	Sample products		
			VII	Duty free products		
			III	Temporary imported products		
			IX	Products under Grant Assistant		
			Total			

Source: Lao Ministry of Industry and Commerce (mainly based on 2008/9 data)

Table 2: Reference Tables of Major Commodities in HS and Lao PDR's Classification

EXPORT	
HS 1996 (2-digit)	Lao PDR's Side
HS 01 (Live animals)	Possibly under II (Agriculture Products + Live Feed Animals)
HS 09 (Coffee, tea, malt and spices)	
HS 25 (Salt, Sulphur; earths and stone; plastering materials, lime and cement)	Possibly under VI (Minerals)
HS 26 (Ores, slag and ash)	
HS 27 (Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes)	
HS 74 (Copper and articles thereof)	Possibly under I (Wood and Wood Products)
HS 44 (Wood and articles of wood; wood charcoal)	
HS 61 (Articles of apparel and clothing accessories, knitted or crocheted)	
HS 62 (Articles of apparel and clothing accessories, not knitted or crocheted)	
HS 97 (Works of art, collectors' pieces and antiques)	

IMPORT	
HS 1996 (2-digit)	Lao PDR's Side
HS 27 (Mineral fuels, mineral oils and products of their distillation; bituminous substances; mineral waxes)	Possibly under I-1 + IV-4 (Fuel and gas)
HS 87 (Vehicles other than railway or tramway, rolling-stock, and parts and accessories thereof)	Possibly under I-2 + II-9 + IV-5 (Vehicles and parts)
HS 61 (Articles of apparel and clothing accessories, knitted or crocheted)	Possibly under I-4 (Raw materials for garments)
HS 62 (Articles of apparel and clothing accessories, not knitted or crocheted)	
HS 72 (Iron and steel)	Possibly under II-3 + IV-1 (Construction materials)
HS 73 (Articles of iron or steel)	
HS 84 (Nuclear reactors, boilers, machinery, mechanical appliances; parts thereof)	Possibly under II-8 + IV-2 (Products for industry)
HS 85 (Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image, and sound recorders and reproducers, and parts and accessories of such articles)	

Source: Authors' compilation

2.3 Annual and Monthly Data

Lao PDR's trade statistics are recorded in the official fiscal year defined as from October to September of each year. Lao PDR is not exceptional to have a fiscal year starting from a month other than January. However, most countries with a fiscal year starting from the middle of a calendar year produce both annual data based on their own fiscal year as well as calendar-based annual data covering from January to December of each year.

Another critical issue regarding the publication of Lao PDR's trade statistics is that monthly data are not publicly available. Basically the only available data are the annual data, while some quarterly data are included in the excel file containing the annual data. Therefore, detailed time series analysis and examination of recent trends is impossible, using Lao PDR's statistics.

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