Mirror Statistics on Foreign Trade of Kyrgyzstan with China

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Keywords: Mirror statistics, Asymmetries, Kyrgyzstan, China.

Abstract. The discrepancy in international trade statistics remains a matter of serious concern for Kyrgyz policy makers due to high contribution from trade to the budget of a country. This article examines the import and export statistic of Kyrgyzstan with its main foreign trade partner China by the mirror statistics method for the period from 2008 to 2015.

Among the causes of discrepancies (asymmetry) in international trade statistics there are various reasons - from different systems of different customs regimes, emerging issues such as re-export to corruption and false declaration. The results obtained by Kyrgyz Republic and its major trading partner People’s Republic of China indicate the decrease of asymmetry through the researched period. However, such significant asymmetry cannot be explained by the difference in customs reporting approaches. This allows to assume the presence of corruption and contraband goods.

Introduction

Repeatedly it was noted that in the customs area there are a number of problems related to corruption, lack of political will to conduct real reforms and the lack of reliable and transparent customs statistics. Therefore, the customs statistics of trade between Kyrgyzstan and main trade partner China became the subject of this study. Its relevance is due to the high contribution of the formation of budget revenues of the Kyrgyz Republic (KR).

The main purpose of the study is to identify problems in statistics of the foreign trade turnover of the Kyrgyz Republic on the example of trade with China. Objectives of the study are: to identify discrepancies in the statistics of foreign trade of the KR with China; to identify reasons of those discrepancies; to develop proposals and recommendations on improving foreign trade statistics.

The study was conducted using the method of “mirror statistics” in the customs used by different scholars. The mirror statistics is implemented for trade between Kyrgyzstan and China. For the better analysis the mirrors statistics was also applied for imports from China to countries with similar customs regime - Russia and Kazakhstan.

The study found significant differences in data on imports of China in the KR. The values and volumes of discrepancies indicates a high corruption risks in the sphere of customs policy of the KR. The study also conducted mirror statistics for most imported product codes from China.

The results obtained are summarized and grouped into reasons of discrepancy and recommendations to improve statistics on foreign trade and improving customs administration.

Methodology of Research

The "mirror statistics" method is used for current study to analyze the performance of Customs Authority of Kyrgyz Republic (trade between Kyrgyzstan and China). This method is internationally accepted and are used to obtain reliable customs foreign trade statistics comparability of data with partner countries to identify existing differences.

The method of "mirror statistics" compares the data of customs statistics on import of goods with the data of partner countries about their exports. The mapping allows to consider each individual trade flow from two points of view: of the shipper and of the recipient. Analyzing trade flows between countries Guo [1] says: "it is extremely important that data recorded by country A as exports to country B match the data recorded by country B as imports from country A. Unfortunately, this is rarely the case."
There are a number of objective reasons that lead to discrepancies of statistical. International practice recognizes the margin of error within 10% [2]. Some reasons of asymmetry: different reporting system for trade imports and exports by special trade; different valuations for imports (c.i.f.) and exports (f.o.b.); differences in thresholds for international trade, which in turn means differences in the definition of trade in small transactions; other differences include the difference between the time of measurement (including customs authorities); goods classification or misattribution; and smuggling [3]; uneven exchange rate fluctuations.

Guo [1] noted that mirror statistics is the second-best solution, the best is the represented data submitted at the national level. Because mirror statistics have some disadvantages. First, they do not include trade with other countries not reporting. Secondly, it is a problem of trans-shipments, which may hide the real power source. Third, mirror statistics invert the reporting standards by valuing exports in c.i.f. and imports in f.o.b, both items are not counted [1]. The differences in the estimates in excess of the adopted assumptions may indicate a difference of statistical accounting in the partner countries, but they often reveal violations of the customs control and reporting. It identifies discrepancies in terms of value and actual values, after which they are classified into two groups depending on positive or negative deviations.

A prerequisite for the analysis is the development of common indicators, namely, a common time period, common units of measurement. China was selected as a partner-country for this observation according to following criteria: 1) the largest trade turnover of the Kyrgyzstan with the partner country; 2) the presence of common borders with the partner-country; 3) the availability of statistical information on foreign trade; 4) the degree of influence of the partner country on the world's foreign trade; 5) the presence of comparable customs regulations and trading regimes.

The study period is 8 years, namely from 2008 to 2015. To collect information, the following sources were used: the researches on the topic of mirror statistics in international trade and re-export; information from international and regional institutions: Eurasian Economic Union (EAEU), UN Comtrade, Trade Map, the data of National Statistics Committee, National Bank of KR, State Customs Authority.

Brief Overview of the Development of Foreign Trade of Kyrgyz Republic

Kyrgyzstan conducts trade with almost 140 countries. The total foreign trade turnover of Kyrgyzstan for the period from 2008 to 2013 showed a constant growth. However, the trade turnover of the country is declining since 2013 to the current moment. One of main reasons for this new common external tariff (CET) of the Eurasian Economic Union, where Kyrgyzstan officially entered in 2015. The new CET had a negative influence on one of the main "income item" for the Kyrgyz economy - re-export of Chinese goods.

Starting from 2008 the share of exports in total foreign trade volume declined from 31.3% to 23% in 2016, while the share of imports increased from 68.7% (2008) to 77% in 2016 [4]. A special feature of the trade balance of Kyrgyzstan since independence is a constant negative balance. For the period from 2008 to 2016 the negative trade balance ranged from 1.6 to 2.7 billion US dollars.

The main import partner country for Kyrgyzstan is PRC, import from PRC constitute more than 60% of total imports in 2016 [4]. Kyrgyzstan in 1998, became a member of the World Trade Organization, the first among the Post-Soviet countries conducted a liberal trade policy [5]. This policy has contributed to the establishment of Kyrgyzstan as a transit country for the supply of Chinese goods to Central Asian countries, Kazakhstan and Russia. The United Nations [6] define that re-exports happens when goods enter the customs territory of a country and then shipped to another, without being transformed. Although the official data of KR indicate a relatively low volume of re-exports—about 14% of total exports (National Bank of KR for 2012). However, analytical materials and research on re-exports show that the size of re-export, despite the observed decline was much larger than officially registered [2]. In 2015 Kyrgyzstan entered the EAEU and implemented new CET of 5.71%, the average rate of applicable customs tariff in Kyrgyzstan was 5.04% [5]. Therefore, re-exports of Chinese goods by 2015 rapidly declined, and at the moment there is no any replacement by the real economy.
Mirror Statistics on Trade between China and Kyrgyz Republic

The main trade partner of Kyrgyzstan is China. Trade with China makes up 23.3% of the total Foreign Trade Turnover of the Kyrgyzstan [4]. At the same time, the dynamics of imports from China from 2008 to 2015 tends to decrease. The main reason for this, as mentioned above, the entering the Eurasian Economic Union and implementing new CET. If previously Kyrgyzstan was "the only country in Central Asia that re-exports Chinese goods"[7]. Now Eurasian customs regime reduces this opportunity.

Discrepancies between national data and mirror statistics can be both import and export. Export promotion policies through exemption from taxes and customs duties, and the practice of VAT refund for export stimulates transparency for legal export. Matching mirror customs statistics of the Kyrgyz Republic and China's foreign trade of Kyrgyzstan with China showed the largest differences in % and in monetary terms [7].

Mirror Statistics on Exports to China from Kyrgyzstan

The Chinese data on imports from Kyrgyzstan show a significant difference than the Kyrgyz statistics on exports to China. Product groups where there was the greatest discrepancy include: raw hides and skins, black metal, copper, etc. Asymmetry in exports to China tend to decrease with 173% in 2008 to 63% in 2012. Negative sign means that exports to China according to Kyrgyz customs is overestimated.

Table 1. Mirror statistics on exports to China (2008-2015 in thousands USD).

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports according to trading partner China</th>
<th>Exports according to Kyrgyzstan</th>
<th>Discrepancy</th>
<th>% Discrepancy to Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>121,328</td>
<td>44,391</td>
<td>-76,937</td>
<td>-173</td>
</tr>
<tr>
<td>2009</td>
<td>48,450</td>
<td>19,328</td>
<td>-29,122</td>
<td>-151</td>
</tr>
<tr>
<td>2010</td>
<td>72,069</td>
<td>28,255</td>
<td>-43,814</td>
<td>-155</td>
</tr>
<tr>
<td>2011</td>
<td>98,121</td>
<td>42,040</td>
<td>-56,081</td>
<td>-133</td>
</tr>
<tr>
<td>2012</td>
<td>89,021</td>
<td>61,374</td>
<td>-27,647</td>
<td>-45</td>
</tr>
<tr>
<td>2013</td>
<td>62,350</td>
<td>38,955</td>
<td>-23,395</td>
<td>-60</td>
</tr>
<tr>
<td>2014</td>
<td>55,424</td>
<td>32,783</td>
<td>-22,641</td>
<td>-69</td>
</tr>
<tr>
<td>2015</td>
<td>58,571</td>
<td>35,877</td>
<td>-22,694</td>
<td>-63</td>
</tr>
<tr>
<td>Total</td>
<td>605,334</td>
<td>303,003</td>
<td>-302,331</td>
<td>-100</td>
</tr>
</tbody>
</table>

Source: calculations based on data of UN Comtrade [8], NSC "External Trade of the Kyrgyz Republic 2008-2015 [4]

Mirror Statistics on Imports from China to Kyrgyzstan

Comparison of data across countries over five years since 2008 to 2012 conducted by Toktakunov and others [2] showed that the mirror statistics of the six countries: China, Kazakhstan, Turkey, South Korea, Lithuania and Belarus have differences with a positive value. Comparative analysis revealed two types of the differences noted. The difference with a positive value means that according to the statistics of the partner countries Kyrgyzstan imported goods more than according to statistics from State Customs Authority. The second type with a negative value indicates that according to the statistics of the partner countries Kyrgyzstan imported goods less than according to statistics from partners’ Customs Authority. The study [2] also showed that from all the foreign countries the most significant level of discrepancies on the import identified with China, asymmetry in ex-
ports is also relatively high. At the same time, the current research showed that the dynamics of imports from China from 2008 to 2015, tends to decrease. So, if in 2008 the difference with data from China was 1156%, which is more than 8 billion 400 million U.S. dollars, in 2015 is 316%, or over 3 billion 253 million dollars.

Table 2. Mirror statistics on imports from China (2008-2015 in thousands USD).

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports according to trading partner</th>
<th>Imports according to Kyrgyz Republic</th>
<th>Discrepancy</th>
<th>% discrepancy to imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>9148.068</td>
<td>728.205</td>
<td>8419.863</td>
<td>1156</td>
</tr>
<tr>
<td>2009</td>
<td>5155.105</td>
<td>617.268</td>
<td>4537.837</td>
<td>735</td>
</tr>
<tr>
<td>2010</td>
<td>4060.407</td>
<td>666.303</td>
<td>3394.104</td>
<td>509</td>
</tr>
<tr>
<td>2011</td>
<td>4700.285</td>
<td>923.544</td>
<td>3776.741</td>
<td>409</td>
</tr>
<tr>
<td>2012</td>
<td>4451.938</td>
<td>1210.253</td>
<td>3241.721</td>
<td>268</td>
</tr>
<tr>
<td>2013</td>
<td>5075.346</td>
<td>1432.046</td>
<td>3643.3</td>
<td>254</td>
</tr>
<tr>
<td>2014</td>
<td>5242.520</td>
<td>1098.468</td>
<td>4144.052</td>
<td>377</td>
</tr>
<tr>
<td>2015</td>
<td>4282.123</td>
<td>1029.111</td>
<td>3253.012</td>
<td>316</td>
</tr>
<tr>
<td>Total</td>
<td>42115.792</td>
<td>7705.198</td>
<td>34410.63</td>
<td>446.6%</td>
</tr>
</tbody>
</table>

Source: calculations based on data of UN Comtrade [8], NSC "External Trade of the Kyrgyz Republic 2008-2015 [4]

However, Kyrgyz Customs Authority data for the period 2008 - 2012 indicate that despite large differences in terms of money value, the differences in terms of volume is negligible [5]. During the comparison of Kyrgyzstan’s data about imports from China and the data of China's export to Kyrgyzstan (2 digits’ level) revealed significant differences for some commodities. The current research showed that most imported product codes from China are 39 (plastics), 55 (man-made staple fibres), 61-62 (clothing), 64(footwear), 72-73 (articles of iron and steel), 84-85 (electrical equipment, machinery). On the commodity codes 39, 61, 62 and 64, there was a great positive divergence, indicating that the understatement. In 2015 in comparison with 2008 the percentage of positive differences declined, but they remained at a considerable level. On the product code 72, 73 and 55 in 2008 and 2015 had a negative divergence, that indicates a data of Kyrgyz Customs imports over exports from China.

Mirror Analysis of the Imports of Kyrgyzstan, Russia and Kazakhstan from China

For the reliability of the present study the additional "mirror" analysis of statistics of import of Kyrgyzstan, Russia and Kazakhstan from China was conducted for the period from 2008 to 2015 to assess the same situation for differences in countries with customs regulation similar to Kyrgyz.

Analysis of Russia's imports from China showed negative discrepancies of 5% to 24%, which average slightly exceeds the permitted. Kazakhstan has a positive discrepancy with China on the import from 47% to 135% during 2008 to 2015.

The significant difference between discrepancies of countries with similar customs regime is obvious. Comparing to Kazakhstan in 2008 the Kyrgyz discrepancy is 10 times more, and almost 5 times more in 2015. With Russia from 2008 to 2015, the difference varies from 233% to 50 times.
Figure 1. Mirror statistics on imports of Kazakhstan, Kyrgyzstan and Russia from China (2008-2015, % differences).

A comparative analysis of countries with similar customs regime and methodology shows the existence of serious problems that cannot be explained only by the difference in methodology approaches in customs accounting between Kyrgyzstan and China. This allows to assume the presence of corruption risks associated with understating of customs value, "contraband" goods into the territory of the Kyrgyz Republic.

Explanations of State Customs Authority about Causes of Discrepancies

Analysis of indicators of Kyrgyz import and export of China for 2008-2015 showed the existence of significant differences both in value terms and in physical quantities. State Customs Authority mentions 9 reasons of discrepancies in customs statistics with China:

1. Difference in time of the reporting the goods according to the "revolving supply" (Volume is insignificant);
2. Trade of goods made in Kyrgyzstan/China through third countries (Volume insignificant);
3. Supply of goods through intermediaries (Volume is insignificant);
4. Different approaches to the classification of goods during their Declaration at 6 or more digits of product codes. The factor is eliminated by the use of data at 2-digits product code);
5. Different approaches to the quantitative indicators of the goods (tons, pieces). The error is eliminated by current research;
6. The transit of Goods through territory of Kyrgyz Republic. Risk factor eliminated by deducting the volume of transit goods through the territory of the KR from imports;
7. The overestimation of export prices per unit by China. This factor is excluded through conducting a mirror analysis of import of KR from China.
8. Understating the customs value of imported goods by the Kyrgyz Republic. This factor has been excluded through conducting a mirror analysis of the physical volume of import of KR from China (2008-2012).

9. False Declaration of imported goods. This factor is the main cause of distortions in the customs statistic.

Conclusion

The existing asymmetries in trade statistics between Kyrgyzstan and its main international partner China for the period from 2008 to 2015 is illustrated. The overall dynamics of trade between two countries is changing due to the entrance to the Eurasian Economic Union.

As shown in the analysis, the degree of asymmetry (discrepancy) varies depending on issues used as basis for comparison - cost value or physical value. It should be noted that because the calculation and comparison of the discrepancy used the cost value import statistics as of reporting countries and partner countries, the results show large differences between countries and industries. To identify systematic patterns and reasons of discrepancy of customs statistics the research additionally considered mirror statistics of import from China to neighboring countries Kazakhstan and Russia.

The obtained results are summarized and grouped into recommendations and conclusions to improve statistics on foreign trade and improving customs administration.

The current analysis allowed to draw the following conclusions:

1. Customs statistics of Kyrgyzstan contains a high degree of uncertainty
2. The methodology of the customs statistics does not meet modern requirements for reliable and realities of foreign trade
3. The current level of customs administration does not provide proper easy reporting and control.
4. High level of discrepancy in terms of indicators of the imports from China, ten times more than those indicators in Russia and Kazakhstan, with similar customs regimes, indicates the presence of corruption in the determination of the customs value.
5. Significant difference in physical volumes of import in the Kyrgyz Republic from China at 2-digits product codes is proof of a false Declaration.

The analysis allowed to make the following recommendations. First, it is necessary to modernize the methodology of customs statistics taking into account the international standards for greater comparability of calculated indicators. Second, the government needs to take measures to ensure the exchange of information on trade with China on a permanent basis for the reliability of the customs statistics. It is also important to control the occurrence of unavoidable errors to ensure the least failure in the statistics.

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