The Spillover Effects of the Global Financial Crisis on Latin America

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Introduction

The financial crisis that engulfed the United States has jeopardized the global financial crisis and stunted growth in the global economy. Industrial production and merchandise trade in both advanced economies and emerging markets fell sharply. This paper analyzes the spillover effects of the global financial crisis on Latin America. The spillover effects of the financial crisis were significant, adverse impacts on Latin American agriculture. Therefore, it is important to analyze the spillover effects of the global financial crisis on Latin America.

Figure 1 depicts FSI in Latin American countries. The spike between 1997 to 2001 is a response to the Asian crisis. Recent spike is owing to the current financial crisis. The Argentine default in 2002 also contributed to the spike.

Objective

The objective of this study is to analyze the impacts of the global financial crisis on Latin American agriculture, emphasizing on agricultural exports and GDP. Three main reasons for the study are proposed:
1. Chilean’s largest U.S. banks and European banks were heavily exposed to Latin America via syndicated loans to emerging economies, and therefore, in the end, the financial crisis developed in Latin America and the world.
2. Recent economic downturn in the developing world and in Latin America has been transmitted to advanced economies through trade flows such as foreign direct investment (FDI).
3. Governments in the advanced world have been lagging reforms, which are important to U.S. agriculture.

Data and Methodology

Ghosh et al. (2009) suggest that spillovers occur in two ways through (1) a collapse in export demand for goods and services, and (2) a decline in commodity prices. This study focuses on exports of agricultural products and gross domestic product (GDP), gross domestic product (GDP) and commodity prices, and commodity prices and GDP of rest of the world (ROW). Data on agricultural exports is from IMF and data on other variables is from US Department of Energy. Data for estimating FSI for FSI is obtained from Bloomberg and DataStream. The models are estimated using GMM estimator.

Results

The regression results for FSI and agricultural export equations are depicted in Table 1 and Table 2, respectively. The results are as follows:

All of the estimated coefficients of financial stress (current year) are statistically significant and have the expected signs in both GDP and agricultural exports equations. The estimated long-run response of GDP to FSI is about 0.10, suggesting that a 1 percentage point permanent increase in financial stress would reduce GDP in Latin American countries by about 10 percentage points. A coefficient of current financial reform in the GDP equation is not significant but is significant for the long-run equation, suggesting that structural reforms are lagged. The estimated long-run response of agricultural exports to FSI is about 0.05, meaning that a 1 percentage point permanent increase in financial stress would reduce agricultural exports from 1973 to 2005. We assumed that from 2006 to 2009, there was no significant change in the financial system and, therefore, the index values of FSI for these periods are the same as those in 2000. This is important because many countries have reformed their financial systems (FR), including Latin America. This variable is also included in the model. A coefficient of all financial reform in the GDP equation is not significant but is significant for the long-run equation, suggesting that structural reforms are lagged. The estimated long-run response of GDP to FSI is about 0.10, suggesting that a 1 percentage point permanent increase in financial stress would reduce GDP in Latin American countries by about 10 percentage points. A coefficient of current financial reform in the GDP equation is not significant but is significant for the long-run equation, suggesting that structural reforms are lagged. The estimated long-run response of agricultural exports to FSI is about 0.05, meaning that a 1 percentage point permanent increase in financial stress would reduce agricultural exports.

Table 1. Impacts of Financial Stress and Financial Reforms on GDP

<table>
<thead>
<tr>
<th>Variable</th>
<th>Specification 1</th>
<th>Specification 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSI</td>
<td>-0.162 (-0.52)</td>
<td>0.280 (1.24)</td>
</tr>
<tr>
<td>Financial reforms</td>
<td>0.001 (0.09)</td>
<td>0.004 (0.46)</td>
</tr>
<tr>
<td>Commodity prices</td>
<td>0.708 0.87</td>
<td>0.846 0.822</td>
</tr>
</tbody>
</table>

Table 2. Impacts of Financial Stress and Financial Reforms on Agricultural Exports

<table>
<thead>
<tr>
<th>Variable</th>
<th>Specification 1</th>
<th>Specification 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSI</td>
<td>-0.122 (-2.84)</td>
<td>-0.141 (-3.05)</td>
</tr>
<tr>
<td>Financial reforms</td>
<td>0.708 0.87</td>
<td>0.846 0.822</td>
</tr>
</tbody>
</table>

Conclusions

This paper has empirically analyzed the spillover effects of the financial crisis on agricultural exports and overall GDP in Latin American countries. The results show that FSI has significant impacts on both agricultural exports and GDP. Lagged financial reforms have significant impacts on GDP but are not important for agricultural exports. The results of the analyst are useful that they can help policymakers implement appropriate policy decisions to mitigate possible future crises.

References


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