The myth of economic recovery: The case of crises in neighboring countries

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HIGHLIGHTS

- I study the impact of crises in neighboring countries on the domestic economy.
- I focus on different sorts of financial and political crises.
- Crises in neighboring countries are found to have adverse effects on the domestic output.
- These effects are highly persistent with no evidence for recovery.
- This finding emphasizes the potential gains from cross-border cooperation and coordination in policymaking.

ARTICLE INFO

ABSTRACT

Although there is evidence that there are economic spillovers from neighboring countries to the domestic economy, there has been lack of effort to discover the persistence of these effects. Using panel data for a large set of countries, I ask whether the effect of crises in neighboring countries on the domestic output is long lasting. I show that different sorts of political and financial crises in neighboring countries have a highly persistent impact on the domestic output with no evidence for recovery.

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1. Introduction

There is evidence that different types of domestic crises are associated with permanent output losses. Using 190 countries and different types of financial and political shocks between 1960–2001, Cerra and Saxena (2008) find robust evidence that output losses from crises are highly persistent with no evidence for recovery. More recently, Teulings and Zubanov (2014) focus on the impacts of banking crises on economic activity using 99 countries between 1974–2001 and show supportive evidence against econo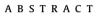mic recovery. There are other studies analyzing smaller sets of countries and suggesting similar evidence for the long lasting impact of different types of crises on the output in a country.[1]

Another strand of the literature documents that there are spillovers to the domestic economies from the neighboring countries. Ades and Chua (1997) find that a political instability in neighboring countries has an adverse impact on the domestic economy. Chauvet et al. (2007) show that being a direct neighbor of a failing state means 0.6 percent lower growth rate. Glick and Rose (1999) discuss that currency crises tend to be regional and affect countries with geographic proximity. Baig and Goldfajn (1999) find supportive evidence for financial market spillovers among geographically

[1] E.g. Cerra and Saxena (2005a, b) and Furceri and Zdzienicka (2011).

close Asian economies. Cerra and Saxena (2002) show evidence for contagion effects from the neighboring countries in the case of the currency crisis in Indonesia in late 1990s.[2] More recently, Coudert et al. (2011), focusing on emerging economies during the recent financial turmoil, find that currency volatility in a country is likely to be affected by the neighboring countries. In sum, typically, the evidence shows that countries become more likely to perform poorly, if their neighbors perform poorly.

In this study, I ask whether the impact of crises in neighboring countries on the domestic output is persistent, which has been undiscovered by the existing studies. I find that the negative impact of different sorts of financial and political crises in neighboring countries on the domestic output is highly persistent with no evidence for rebound. Financial shocks include currency, banking, and twin financial (simultaneous banking and currency) crises. For political shocks, I use civil wars, a deterioration of the quality of political governance, and twin political crises comprising the two. I find that all types of financial crises in neighboring countries lead to a permanent decline in the domestic output with no evidence for rebound. Shocks to the executive power and twin political crises in neighboring countries also lead to a persistent decrease in the domestic output, whereas the effect from wars is not clear. The magnitude of the impact of crises in neighboring countries on the domestic output is found to be lower than the magnitude of the impact of domestic crises. However, the losses are still sizable ranging from 1 percent to 5 percent. This finding emphasizes the importance of cross-border cooperation and coordination in policymaking, since policies in a neighboring country may induce a sort of crisis, which affects the domestic economy adversely.

2. Data and methodology

I adopt the dataset from Cerra and Saxena (2008) for the baseline estimation. Real GDP growth rates are from the World Bank's World Development Indicators (WDI). A dummy for currency crises is formed by constructing an exchange market pressure index (EMPI) – defined as the percentage depreciation in the exchange rate plus the percentage loss in foreign exchange reserves – for each country. The indicator for a currency crisis is assigned one for a year in a country if the EMPI is in the upper quartile of all observations across the panel. Dates for banking crises are obtained from Caprio and Klingebiel (2003). The dummy variable is set to one in the first year of a banking crisis. The data for civil war is adopted from Sarkees (2000) Correlates of War Intra-State War Data. A dummy variable is assigned one for a country during the years of conflict. The data on the quality of the government is from the Polity International IV dataset. The institutional constraints on the power of the political executive are exploited to identify the shock to political governance. A dummy variable is set to one whenever there is an increase in authoritativeness of the regime in a country. I define a neighboring country based on contiguity. Borders along rivers, lakes, and other internal waters are included, whereas maritime boundaries are excluded.

The methodology extends Cerra and Saxena (2008) by adding a dummy variable that indicates whether one of the neighboring countries faces with a crisis, as well as controlling for all sorts of domestic crises. I estimate impulse response functions of the domestic output following different types of shocks in a neighboring country between 1960–2001. I use a univariate autoregressive (AR) model in growth rates, which accounts for the non-stationarity of output, e.g. Nelson and Plosser (1982), and for serial correlation in growth rates. I control for all types of domestic shocks throughout the regressions. The relationship is estimated using an AR(4), as

coefficient estimates are insignificant after the fourth lag. The model is as follows:

$$g_{i,t} = \beta_i + \sum_{j=1}^{4} \theta_j g_{i,t-j} + \sum_{z \in Z} \sum_{p=0}^{4} \gamma_p^z D_{i,t-p}^z + \sum_{s=0}^{4} \phi_s I_{i,t-s} + \epsilon_{i,t}$$

where $g_{i,t}$ is the growth rate of real GDP in country i, and β_is are country fixed effects. $D_{i,t}^z$ denotes the occurrence of domestic crises in country i, where Z is the set of all sorts of crises. $I_{i,t}$ is 1 whenever there is a type of crisis in a neighboring country of country i.

3. Results

3.1. Main results

Fig. 1 illustrates the responses of the domestic output following a crisis in at least one of the neighboring countries using the dataset by Cerra and Saxena (2008). The losses are sizable and highly persistent, except civil wars. When a neighboring country faces with a currency crisis, the output loss in the domestic economy stays around 1.3 percent, after 10 years since the crisis. Similarly, the loss is highly persistent for a banking crisis (1.9 percent) and a twin financial crisis (2.3 percent). The output loss in the domestic economy following negative shock to the executive power in a neighboring country stays around 1.5 percent, whereas it is 3.1 percent in the case of a twin political shock, after 10 years since the shock.

Compared to the findings by Cerra and Saxena (2008), the size of the impact of a crisis in a neighboring country is lower than the size of the impact of a domestic crisis for all sorts of shocks.[3] On the other side, the impact of crises in neighboring countries on the domestic output is estimated after controlling for all sorts of domestic crises separately. However, as Cerra and Saxena (2002) document, crises in neighboring countries may have predictive power for the crises in the domestic country. Consequently, the findings in this study can be interpreted as lower limits, since the domestic economy may face with additional losses through domestic crises which could be potentially triggered by a crisis in a neighboring country.

3.2. Robustness checks

3.2.1. Common period shocks

I now examine whether these results still hold when I control for time-specific global conditions. Following Cerra and Saxena (2008), I include the change in oil prices in the estimation. I use the data for the crude oil price (West Texas Intermediate) in US dollars. Fig. 2 shows that the results are essentially the same.[4]

3.2.2. Dates for financial crises

I also check whether the results robust to the dates for financial crises. I replace the dates for banking and currency crises using the widely-used database by Laeven and Valencia (2012). As shown by Fig. 3, results stay similar.

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[2] Fratzscher (1998) also provides similar evidence for the contagion during the Latin American and the Asian crises in 1990s.

[3] The authors find that a domestic banking (currency) crisis yields around 7 percent (4 percent) loss, whereas the loss is around 9.5 percent in the case of a twin financial crisis, 10 years after the shock. A domestic civil war (a shock to the executive power) leads to an output loss around 3 percent (4 percent), whereas a twin political shock yields a loss around 14 percent, after 10 years following the shock.

[4] I note that the results are not much affected, if the federal funds rate or the growth rate of real GDP in the US are used as proxies for global conditions. Whenever I include those two variables, I drop the US from the regressions.