

Chapter 20

Assessing the Financial Vulnerability of Emerging Markets

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ABSTRACT

The consequences of the recent financial crises during the last two decades showed how important it is to monitor financial performance and try to predict a coming crisis. In an effort to predict a coming crisis, the authors calculate a vulnerability index based on a number of financial and economic indicators. This chapter analyzes the financial vulnerability of sixteen emerging countries as these countries are more vulnerable to financial fluctuations. The findings show that Peru, Russia, Indonesia, and Thailand are less vulnerable to a crisis, whereas, South Africa, Turkey, India, Egypt, and Hungary are more vulnerable to a crisis.

INTRODUCTION

During the past decades there were a number of financial crises including the recent 2008 financial crisis, the 2000 dot-com bubble, the Russian, Asian, and European crisis of 1990's. These crises are a result of many factors as well as some contagion factors which give rise to crises involving multiple countries. Therefore, this chapter investigates the underlying causes of these crises in order to better be able to under-

stand the factors that affect the vulnerability of countries to financial crises. These factors may help us work on an early warning system which may enable us to better predict a coming crisis in terms of the country to be involved and the timing of the crisis. This in turn may result in both the countries and other institutions like IMF getting better prepared to the crisis or even prevent the crisis in the first place.

In this study, the authors focus on the emerging markets specifically as they are more vulnerable

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to financial fluctuations, and the consequences of crises are more severe in terms of economic activity and wealth implications. The authors look at the eighteen emerging market countries from Standard and Poor's Emerging Market Countries list. In an attempt to understand the vulnerability of a country to a crisis, the authors examine country vulnerability levels in terms of numerous indicators from the literature including capital inflows, portfolio and borrowing characteristics, exchange rates, herd behavior, corporate governance standards, debt and equity positions, banking system health, market fear, current account position, remittances, international reserves position, and market risk premiums. Due to data availability, this chapter focuses on an overall number of fifteen indicators. The findings show that South Africa, Turkey, India, Egypt, and Hungary are more vulnerable to a crisis whereas Peru, Russia, Indonesia, and Thailand seem to be less vulnerable.

BACKGROUND

Capital Inflows

Kaminsky *et al.*, (2003) observe the trends of the last 20 years and argue that defaults and devaluations can trigger financial contagions when the three conditions of unholy trinity are present; they follow a large surge in capital flows; they come as a surprise; and they involve a leveraged common creditor. Thus, even if a country is well connected financially or through trade with another country, no financial contagion occurs if these three conditions are not present.

The presence of huge capital inflows is an important requirement for vulnerability since these inflows might come to an abrupt halt in case of a crisis. The halt can generate a liquidity crisis. If the debt is short-term, the resulting outflows worsen the crisis, and result in an increased liquidity crisis, thus, may cause currency devaluation.

Versteeg (2008) focuses on the role of capital inflows and outflows in dealing with a financial crisis. He shows how capital outflow controls implemented by Malaysia in the late 1990's and the capital inflow controls by Chile during the 1990's helped to stabilize these economies during times of financial crises. The case of Chile shows that the importance of having controls to stop investors from exploiting loopholes within the financial structure and help increase the maturity of debt obligations. This also is important for limiting the real appreciation of the currency, especially when the domestic interest rates are high.

Unexpectedness

The element of surprise also plays an important role. If the common leverager is surprised, portfolio re-balancing may take place and may result in panic. However, if it is anticipated, enough time may be available for portfolio re-balancing and as a result, there may not be any panic. In order to measure this effect, the authors analyze Standard and Poors', and Moody's credit ratings for the periods before the crisis and results show that for crises where there are frequent downgrades, contagion did not occur.

Leveraged Common Creditor

Some important implications of Kaminsky *et al.*, (2003) are that countries with more internationally-traded financial assets and more liquid markets should be more vulnerable to a crisis. Small, highly illiquid markets are likely to be under-represented in international portfolios and should be shielded from this type of a crisis. Trade linkage is not considered a significant factor in the spread of a financial crisis. The presence of a common leverager, like the U.S. mutual funds that can sell assets from one country to another when prices fall, is required to spread the financial crisis from one country to another.

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