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Contagion: a fear for African equity markets?

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Abstract

The frontier equity markets of Africa make up an appropriate data set on which to explore the boundary between the benefits of global integration and the problems of contagion. This study looks specifically at determining whether any of the African markets are globally integrated enough with emerging markets to be vulnerable to contagion. Using two different methodologies for measuring contagion, we find evidence that most African markets, with the exemption of Egypt and South Africa, did not suffer from contagion during the crisis resulting from the crash of the Hong Kong market in October 1997.

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1. Introduction

Events in emerging financial markets during the past decade have given rise to a fevered debate about the role of globally integrated capital markets in financial crises. The Mexican peso crisis of 1994, the Asian crisis of 1997 and the subsequent Russian and Brazilian crises of 1998 have provided new data with which to examine the transmission of financial variable movements from one country to another.

It seems clear that emerging markets are becoming more integrated with each other and with developed markets. Bordo, Eichengreen, Klingebiel, and Martinez-Peria (2001) show that

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global crises have become more frequent since 1973, although they have not been proven more severe than any other age. They find that one reason for the increased frequency of crises is an increase in capital mobility. Short-term capital flows have increased over the past several decades, both absolutely and as a share of total capital flows. That integration may be both a blessing and a curse for emerging market economies. It also leaves policy makers in countries with less integrated markets, such as those found on the African continent, in two minds as to whether to encourage capital flows or to restrict it.

Several studies have suggested that increased global integration is beneficial to growth and employment. The reasoning is that when a market becomes financially integrated, companies can access a large new pool of investors. The cost of equity may decline and more investment projects are then viable. For example, Levine (2001) suggests that liberalising restrictions on international portfolio flows tends to enhance stock price liquidity, which in turn accelerates economic growth by increasing productivity growth. In another example, Bekaert, Harvey, and Lumsdaine (2002) show that after integration, equity markets can be larger, more liquid and more volatile, and that the cost of capital declines, credit ratings improve, real exchange rates appreciate and economic growth increases. One conclusion of this work is that integration relies not only on liberalisation but also on the establishment of country funds and/or American Depository Receipts. Another interesting result is that country betas with world markets did not increase 5 years after integration. This suggests that sensitivity to global capital flows can remain low even after integration. Does this mean that there is a point between integration and contagion where an emerging market can experience the benefits of integration without the complications of contagion?

Contagion itself can be a difficult concept to measure. It is generally defined as the spread of market disturbances from one market to another. Dornbusch, Park, and Claessens (2000) separate the causes of contagion into two categories. The first type of contagion is caused by a fundamental spillover resulting from the normal interdependence among economies. Examples of this type of contagion depends on fundamental trade and financial links between economies.

The second type of contagion cannot be attributed to fundamentals and looks to investor behaviour for an explanation. One example is that declines in asset prices cause large capital losses, which induces investors to sell off securities in other emerging markets to raise cash for redemptions. In a similar way, investors who manage portfolios based on benchmark weightings will keep their weightings the same by selling off assets that have increased in value and thus hold too great a proportion of the portfolio. It is this type of behaviour that penalises more liquid markets. It may also be that investors are imperfectly informed and they might assume (correctly or not) that one country has the same problems as another in crisis. They may take the actions of other investors to make this conclusion. These information asymmetries, particularly in circumstances of high fixed costs in gathering and processing country-specific information, could lead to “herd behaviour”.

At a superficial glance, a number of countries could be used as examples of contagion caused by investor behaviour, particularly during the Asian crisis. For international investors to spread contagion, they must be actively investing in the afflicted markets. It would then follow that the spread of a crisis depends heavily on the degree of financial market integration. This reasoning would suggest that the more globally integrated markets are, the higher could be the contagious effects of a shock to another country. Countries that are less financially integrated, either by