interest rates are quickly factored into determining

rates from April to June of 2006. The EM equity and

EM currency indices are made of equally weighted components from the 25 countries listed in Box 1. The

EM currency index is expressed as the inverse of the

exchange rate so that higher index values represent an

Chart 1 shows daily equity prices and exchange

Lessons From Recent Stock Market 'Corrections'

Randall Dodd

Two recent worldwide stock market 'correction' episodes offer useful insights about the volatility of foreign exchange and equity markets. Although the magnitudes of the price drops were not enormous, their importance was greater than indicated by the attention they received in the media and public policy debate.

One occurred in May of 2006 and the other in February of 2007. They did not constitute what is normally called a financial crisis, but they did amount to significant events, even though the media sometimes labeled them "corrections." Both events saw sharp drops in equity prices that stretched across every stock market in the world and demonstrated the high degree of correlation associated with contagion in times of crises. But in neither event did the foreign currency markets exhibit such crisis-like contagion.

This Policy Brief looks at these "corrections" and what they reveal about developing countries' financial stability. The data consists of daily closing prices for the stock market indices in the 25 developing countries listed in Box 1 plus the S&P500 index from the NYSE. The countries were chosen entirely for the availability of data. The data also includes the daily US dollar versus local currency exchange rates for each of these countries.

Box 1. Countries Studied

Argentina	Egypt	Kyrgyzstan	Romania
Bolivia	El Salvador	Mexico	Russia
Bosnia	Georgia	Mongolia	South Africa
Brazil	India	Morocco	Uganda
Bulgaria	Indonesia	Nicaragua	
Colombia	Kazakhstan	Peru	
Ecuador	Kenya	Philippines	

The events of May 2006 were precipitated by statements from the US Federal Reserve Chair that raised concerns about future interest rate increases. Higher interest rates sharply reduce the present value of future earnings and possibly reduce the magnitude of future earning as a result of tighter credit conditions. Remarks by policy makers that raise fears of higher

chart 1. Volatility: May 2006 Events

appreciation of the local currencies.

securities prices.



Note that the direction and timing of the peak and downturn in the three series are very tight. However, the magnitudes of the downturns are very different between developed (i.e. US) and developing currency stock markets. The magnitude is also drastically different between currency and stock prices in both developed and developing countries.

The events of February 2007 look similar in most respects. One key difference is that stock prices in the US and developing countries dropped by a similar magnitude. The currency fluctuations, however, were small in comparison to equity price fluctuations like those in May 2006.

Chart 2. Equity and FX Volatility



Three important lessons can be drawn from this brief analysis. The first is that equity prices are highly correlated across developing countries, and also correlated with major developed country equity market indices such as the S&P500. The correlation across developing countries means that there is a great deal of systemic risk in those equity markets.

Systemic risk cannot be reduced through diversification. This is a critically important factor when considering former US Treasury Secretary, former Harvard University President, current hedge fund advisor Larry Summers' recommendation for developing countries' central banks to shift away from US dollar foreign reserves into high yielding developing country stock market investments. Those high yields need to be assessed in relation to their risks, which are substantial.

The second lesson is that developing country currency markets appear to be behaving significantly different than in the past. In the 1990s, they often acted as catalysts to magnify and spread financial sector disturbances to the overall economy and to other economies. The charts illustrate how they have proven to be resilient to equity price shocks in the more recent episodes.

Although certain countries, such as Turkey and South Africa, experienced decidedly significant exchange rate depreciations during these recent episodes, most developing countries did not. The point is that they are not all suffering from contagion as they did in the past. The reasons for this, in brief, appear to be a shift from dollar denominated foreign borrowing into dollar denominated foreign reserves, strong fiscal and current account balances, and for many countries, a general trend towards currency appreciation. Today, the currency interventions of many developing countries are to prevent their currencies from appreciating further or faster. This implies strong underlying economic fundamentals, reflected by their resilience to these worldwide equity market 'corrections'.

The third lesson is that foreign portfolio investments appear to be adjusting to external shocks, primarily through price changes and not through crossborder capital outflows. When stock prices quickly drop, so that the price discovery process determines the new level, then there is no further economic pressure to sell and run. In this context, investors appear willing to take their losses as temporary and take a forward looking view on their investments, rather than running for the doors motivated by the fear that things can only get worse. At the same time, the lower prices can bring new investors into the market in the opportunistic pursuit of bargain prices. The consequence of shocks is not a massive capital outflow that drives down exchanges rates, but rather a sharp equity price drop. Although the price drop generates significant losses in itself, it also quickly eliminates the motives for capital flight and creates the conditions for continued investment.

These lessons should not be taken as reason for complacency about the stability of international financial markets, especially those in developing countries. There are large global imbalances – of both stock and flows – of unprecedented magnitudes. How these imbalances are reduced or reversed is a great source of uncertainty. While it would be an error to be complacent about these prospects, it would also be wrong to not recognize the changes that have occurred in many developing countries' financial markets and, in turn, fail to consider how they are likely to react to worldwide market disruptions.

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