READING 30: EMERGING MARKETS FINANCE

A- Market Integration and Liberalization

1- The Theory of Market Integration

By financial liberalization, we mean allowing inward and outward foreign equity investment. In a liberalized equity market, foreign investors can, without restriction, purchase or sell domestic securities, and domestic investors can purchase or sell foreign securities. Markets are integrated when returns on assets with similar risk profiles converge.

Suppose the government announces a liberalization in period 1 to occur in period 2. The model predicts that prices will jump up and that the size of the jump is related both to the credibility of the
government’s announcement, and the diversification benefits to be gained from integrating the market. Foreign capital flows in when the market finally liberalizes (in period 2) and the price rises again since all uncertainty is resolved. This last price rise may be small if the announcement was credible. This simple model suggests that variables such as dividend yields and market capitalization to GDP may change significantly during liberalization as they embed permanent price changes. This simple story already reveals complex timing issues. Market prices can change upon announcement of a liberalization or as soon as investors anticipate liberalization may occur in the future.

However, foreign ownership can only be established when allowed by the authorities. That is, capital flows may only occur after the “return to integration” has already taken place, so that foreign investors may not enjoy this return. (Note that we assume that capital inflows exceed capital outflows upon liberalization).

The model suggests that expected returns (cost of capital) should decrease. The reason is that the volatility of emerging market returns is much higher than their covariances with world market returns. Holding the variances and covariances constant, this implies that prices should rise (expected returns decrease) when a market moves from a segmented to an integrated state. However, when a market is opened to international investors, it may become more sensitive to world events (covariances with the world may increase). Even with this effect, it is likely that these covariances are still much smaller than the local variance, which would imply rising prices.

It also makes sense that the liberalization process may be reflected in activity in the local market. As foreigners are allowed to access the local market, liquidity may increase along with trading volume.

There could also be some structural changes in the market. For example, if the cost of capital decreases, new firms may present initial public offerings. Market concentration may decrease as a result of these new entrants. In addition, individual stocks may become less sensitive to local information and more sensitive to world events. This may cause the cross-correlation of individual stocks within a market to change.

2- Measuring Market Integration

Markets can be fully liberalized but not integrated with the rest of the world as a results of various barriers. The degree of market integration is very difficult to measure. Investment restrictions may not be binding, or there may be indirect ways to access local equity markets for example, through country funds or American Depository Receipts (ADRs). Also, there are many kinds of investment barriers, and the liberalization process is typically a complex and gradual one.

There are three different kinds of barriers.
1) First are legal barriers arising from the different legal status of foreign and domestic investors with regard to, for example, foreign ownership restrictions and taxes on foreign investment.
2) Second are indirect barriers arising from differences in available information, accounting standards, and investor protection.
3) Third are barriers arising from **emerging market specific risks (EMSRs)** that discourage foreign investment and lead to de facto segmentation. EMSRs include liquidity risk, political risk, economic policy risk, and perhaps currency risk.

Empirical research using country fund data to examine the differential pricing effects of these types of barriers and finds indirect barriers and EMSRs to have often more important pricing effects than direct barriers.

**B- Financial Effects of Market Integration**

The effect of liberalization and integration can be observed on different levels:

1. **Liberalization and Returns**

Most research studies have found that **after liberalizations: expected returns decrease, correlations and betas increase, and there is no particular impact on volatility.**

2. **Liberalization and Capital Flows**

Research studies have found that **net capital flows to emerging markets increase rapidly after liberalization as investors rebalance their portfolios, but that they level out after 3 years.**

3. **Liberalization and Political Risk**

Country ratings significantly increase (lower risk) with equity market liberalization.

4. **Liberalization and Diversification Benefits**

By removing price segmentation, liberalizations may increase correlations and hence reduce diversification benefits.

**C- Real Effects of Financial Market Integration**

1. **Why Would Financial Liberalization Affect Economic Growth?**

There are a number of channels through which financial liberalization may affect growth:

- First, foreign investors, enjoying improved benefits of diversification, will drive up local equity prices permanently, thereby reducing the cost of equity capital. Consequently, the real variable most sensitive to the cost of capital should be **real investment**. Investment increases post equity market liberalization. If this additional investment is efficient, then economic growth should increase.

- Second, there is now a large literature on how **more developed financial markets and intermediation can enhance growth and how well-functioning equity markets may promote financial development**

- Furthermore, foreign investors may also demand **better corporate governance** to protect their investments, reducing the wedge between the costs of external and internal financial capital, and
further increasing investment. There is, in fact, a large and growing literature on how the relaxation of financing constraints improves the allocation of capital and promotes growth.

2- Measuring the Liberalization Effect on Economic Growth

Taken by itself, financial liberalization leads to an increase in average annual per capita GDP growth of 1.5 to 2.3 percent per year. When they factor in a host of other variables that might also boost economic performance, improvements associated with financial liberalization still remain strong, 0.7% to 1.4% per year. In examining a number of different samples (whose size depends on the availability of control variables), the financial liberalization effect seems robust.

3- Intensity and Simultaneity Problems in Measuring Real Liberalization Effects

a. Intensity of the Reforms

Different measures also point to a strong positive growth effect from liberalization.

b. Financial Liberalization and Macroeconomic Reforms

It is possible that financial liberalizations typically coincide with other more macro-oriented reforms which are the source of increased growth and not the financial liberalizations. However, when Bekaert, Harvey and Lundblad (2002c) add variables capturing macroeconomic reforms, such as inflation, trade openness, fiscal deficits and the black market premium, the liberalization effect remains intact. In some specifications, it does weaken somewhat suggesting that macroeconomic reforms may, indeed, account for some of the liberalization effect.

c. Financial Liberalization and Financial Market Development

Another possibility is that financial liberalization is the natural outcome of a financial development process, and that, consistent with many endogenous growth theories, it is financial development that leads to increased growth. When Bekaert, Harvey and Lundblad (2002c) add a number of banking and stock market development indicators to their regressions, the liberalization effect is reduced only marginally in most specifications but more substantially in a specification excluding the poorest countries. Moreover, they find that financial liberalization predicts additional financial development, but that the decision to liberalize does not seem to be affected by the degree of financial development. Hence, it is likely that one channel through which financial liberalization increases growth is by its impact on financial development.

d. Functional Capital Markets

A final possibility acknowledges the imperfection of capital markets, which drives a wedge between the cost of internal and external capital and makes investment sensitive to the presence of internally generated cash flows. Foreigners may demand better corporate governance and financial liberalization, which may coincide with security law reforms that enforce better corporate governance. Improved corporate governance may lead to lower costs of capital and increased investment.
4- Other Real Effects of Financial Liberalization

Financial integration naturally leads to increased capital inflows. This, in turn, increases asset prices (either rationally or irrationally), improves liquidity, and triggers a rapid expansion in bank credit. The lending boom then leads to a consumption binge, and potentially a real estate bubble. Apart from the appreciation in asset prices, the real exchange rate appreciates as well, aggravating macroeconomic vulnerability. A weak and inadequately regulated banking sector may aggravate this process by lending for speculative purposes, consumption and frivolous investments, including the fueling of a construction boom. When inflated assets are used as collateral to justify further borrowing, a boom–bust cycle is clearly in the making. The consensus view appears to be that liberalization dramatically increases financial sector vulnerability in many countries and that a weak banking sector played a large role in both the Mexican and Asian crises.

While this interpretation of how foreign capital can wreak havoc in the real economy of developing countries is widely accepted, it is surprising that empirical evidence for this view is very scarce.

D- Contagion

1- Currency Crises and Contagion

a. Predictable Currency Crises?

There are two main explanations for why a currency may experience speculative pressures that can lead to a crisis and devaluation.
The first explanation, simply argues that if governments follow policies inconsistent with the currency peg, a speculative attack is unavoidable. Speculators will sell the local currency and buy foreign currency. The central bank will lose foreign reserves defending the peg until a critical level of low reserves is reached, at which point the central bank will give up. **Whereas initial models focused on expansionary fiscal policies, expansionary monetary policies can also lead to speculative attacks.** Of course, this model has the strong implication that speculative attacks should be partially predictable. In fact, growing budget deficits, fast money growth and rising wages and prices should precede speculative attacks. If prices rise while the nominal exchange rate remains unchanged, the real exchange rate will appreciate. Hence, real exchange rate overvaluations should also signal an imminent crisis. The combination of budget deficits and real exchange rate overvaluation may also lead to excessive current account deficits. Consequently, speculative pressures should be predictable from economic data.

The second explanation recognizes that, **sometimes, speculative attacks seem to come out of the blue.** That is, the crises are self-fulfilling, caused by “animal spirits,” as Keynes once phrased it. A significant group of investors simply starts speculating against the currency, provoking a large capital outflow that leads to the eventual collapse of the exchange rate, thereby validating the negative expectations regarding the survival chances of the peg. The authorities have no choice but to change their policies and accept the devalued currency, even though there are ex ante no fundamental reasons for dropping the peg. The empirical prediction of these models is very strong, in that a currency crisis is essentially unpredictable; government policies will only become expansionary after the currency has been attacked and devalued.

Overall, there appear to be macro-economic signals that predict currency crises.

**b. Currency Crisis Contagion**

It is from the perspective of the self-fulfilling attack literature that contagion seems easiest to understand. This literature defines contagion, in the context of currency crises, as the effect on the probability of a speculative attack, which stems from attacks on other currencies.

When speculators attack one currency successfully, they may well try another. However, it is important to realize that contagion may also be truly rational and, perhaps, predictable, for a variety of reasons:

- **Trade is a strong linkage** between countries that has an obvious currency component.
- A related channel of apparent contagion is an income effect—reduced growth and lower income levels after a crisis reduce the demand for imports from other countries.
- A third channel is the “**wake up call.**” It may be that the second country experienced similar negative macroeconomic conditions or followed similar inconsistent policies.
- In addition to these channels, two other channels by which crises spread: a credit crunch (banks affected by a crisis in one country reduce lending to other countries) and a forced-portfolio recomposition or liquidity effect (investors that suffer losses from a crisis in one country sell assets in other countries).
2- Contagion and Equity Markets

Contagion in equity markets refers to the notion that markets move more closely together during periods of crisis. A first problem in the literature is then to define what constitutes a crisis, especially given the extreme volatility of many emerging equity markets. Empirical research has had various supportive but inconclusive evidence of increased correlation at times of crises; it really has depended on the type of crisis.

E- Other Important Issues

1- Corporate Finance

Corporations in emerging markets provide an ideal testing ground for some important theories in corporate finance. For example, the impact of legal institution on return on capital. Also, it is often argued that the existence of a sufficient amount of debt, ADR listings, coverage by research analyst and the presence of large non-management blockholders, helps mitigate the agency problems that arise as a result of the separation of ownership and control. Note that the degree of corporate governance in emerging markets is weak and the use of corporate takeovers as a disciplining mechanism almost nonexistent.

2- Fixed Income

Considerable theoretical and empirical research has focused on understanding sovereign yield spreads.

- The first branch of research tries to capture the strategic aspects of when a country should borrow and default and findings suggest that the threat of political and economic sanctions enforces the debt contracts between developing and developed nations. However, these models do not take a stand on what the sovereign credit spread should be.

- A second branch of research is cast in continuous-time, and focuses on the likelihood of default and the determination of credit spreads in particular countries and derives a relation between sovereign yield spreads and the cost of sanctions. They show that the ability to punish the sovereign borrower leads to a lower sovereign spread.

- The final branch of research examines the cross-sectional relationship between fundamental variables in the economy and the size of the sovereign spreads. Findings show that country risk ratings are positively associated with real per capita GDP, real per capita GDP growth, and the investment to GDP ratio. They find that ratings are negatively related to population growth. Given the strong negative correlation between ratings and sovereign spreads, these models provide a way to link the fundamental characteristics of an economy to the sovereign spread.

3- Market Microstructure

The particular trading arrangements in an equity market may directly affect two key functions of that country’s secondary stock market: price discovery and liquidity.

- First, the trading process should lead to “fair” and correct prices; in other words, no investor should be able to manipulate market prices in his or her favor.
- Second, trading should occur at a **low transaction cost, high speed, and large quantities should trade without affecting the price.**

These issues are the topic of the field of market microstructure. It is clear that the large cross-sectional heterogeneity of emerging markets and the formidable changes they have undergone over time should make them an interesting laboratory for market microstructure research.

**4- Stock Selection**

Stock selection is complicated by potentially extreme information asymmetry problems.

However, research findings confirm the profitability of strategies based on **value and momentum** and **show that the returns cannot be explained with traditional asset pricing models.** There is also evidence that the profitability of these strategies is robust to the assumed transactions cost of a large institutional investor.

**5- Privatization**

In most emerging markets, **privatization was intended to increase the productivity** of state-owned economic enterprises (SOEs), and to help **reduce government budget deficits.** In some cases, governments actively sought to promote capital market development through privatization.

Privatization programs impact emerging capital markets through various mechanisms. The common component of privatization that impacts capital markets is the **transfer of productive resources from the public sector to the private sector.** This transfer may allow investors to achieve benefits through **diversification** and may **affect the cost of capital in emerging markets.**

For most emerging market governments, the implementation of a privatization program **reverses decades of state-led economic development.** Successful privatization of politically sensitive industries may convince investors to **reduce the ex ante perceived risk of government interference** in investment decisions and expropriation of productive assets. As a result of sustained privatization efforts, the **sovereign risk premium** inherent in the government’s fixed income liabilities may be **reduced.** As this chain of events ripples through the economy, **local market entrepreneurs eventually benefit in their ability to obtain debt financing at lower cost.**

**F- Conclusion**

Although it is generally difficult to make inferences in such a setting, a few robust findings emerge: the liberalization process has led to a very **small increase in correlations** with the world market and a small **decrease in dividend yields.** This decrease could represent a **decrease in the cost of capital** or an **improvement in growth opportunities.**

Thus, it is remarkable that we have so far **failed to find negative effects of foreign investment** on emerging markets. For example, although policy makers often complain about foreigners inducing excess volatility in local markets, our empirical tests never reveal a robust increase in volatility after liberalization.