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## International Equity Returns, Country Growth, and World Economic Recovery

It has been customary when analyzing business cycles to assume that the variables generating the process remain the same. From cycle to cycle, the length and intensity differ, giving each cycle its own distinctive signature. The present cycle, however, may be prolonged beyond the normal chronology if the developing countries as a group grow at an accelerated rate, and if their capital markets become linked to the rest of the capital markets in the world.

An economic expansion is sustainable until the profit rate on new investment falls or turns negative. If capital markets become truly international, the profit rate on new investment may be able to stay high longer than usual, because new investment can move abroad.

Conventional business cycle theory takes into account these international capital flows, but does not give them a causative role in the process of transmitting growth. Foreign direct and portfolio investment are cast in a secondary role. Prosperity spreads from one country to another first by way of the trade balance: the growing economy runs a trade deficit, which puts purchasing power into the hands of its trading partners, which in turn helps their economies to grow. Capital movements are "accommodating", i.e., they finance trade imbalances. To a lesser extent, capital flows also facilitate transfers of technology, and channel capital to places where its opportunity cost is higher.

This view was satisfactory as long as national capital markets were separate, and as long as trade in goods was more important than trade in currency and financial instruments. Now trade in currency and financial instruments may dominate trade in goods<sup>1</sup>. Protectionism and restrictions on capital movements are both prevalent, but obstacles to trade in currency and financial instruments are easier to circumvent. In the developing countries this point is becoming widely understood. Until recently most developing countries attempted to restrict or prohibit capital movements; many also attempted to maintain overvalued exchange rates, while holding domestic interest rates below the rate of inflation<sup>2</sup>. When capital markets were separate, such policies could succeed, at least partially. Nowadays they do little more than spur capital flight.

Applying financial theory to the international capital market, we hypothesize that the continued growth of foreign economies will result in

1. Excess equity returns for investors.
2. Increased international capital market efficiency.
3. Foreign growth rates that are greater than the required rates of return for international equity investment, resulting in a sustained rally in foreign stock markets.

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## International Equity Returns

The dollar reached a fifteen-year peak against the yen and the major European currencies in February, 1985. Over the next fourteen months it fell more than 30% versus those same currencies. In the United States, international mutual funds scored annualized gains as high as 123% due to the decline of the dollar and the rise in European and Japanese stock markets<sup>3</sup>. From December 1984 to March 1986 assets of these funds rose from \$ 1.1 billion to \$ 12.7 billion<sup>4</sup>.

What should the managers of these funds do now? They can gamble that the dollar will keep falling, and that the stock markets in the other industrial countries will continue to rise. That strategy may work for another year, but eventually these managers will have to find new investment opportunities. Their search for undervalued stocks has already encouraged them to invest in countries they had never previously considered. They are starting to invest in equities in developing countries.

Some developing countries have stock markets that are active and well-established. Others have informal networks that perform the same function. What will happen when international portfolio diversification spills over into these stock markets? Can U.S. investors earn extraordinary returns?

Trading volume in these markets is low by U.S. standards, and in each market there are only a few stocks that U.S. mutual fund managers could consider accumulating. They will begin by buying only the blue chips in each market. It will be risky enough to buy a Brazilian or Korean stock; there will be no need to buy shares in a less-known company. Local investors will sell their holdings to foreigners, and use part of the proceeds to buy shares in less-known companies.

This ripple effects of foreign buying in these markets could be far-reaching. Large, established companies that have not yet gone public would be encouraged to do so. There would also be a larger market for new issues and start-up ventures. Many studies have shown that in the U.S. domestic capital markets investors purchasing new issues have been able to earn excess returns<sup>5</sup>.

The really major benefit, however, would be a large increase in liquidity and improved local capital market efficiency. Investors that own large businesses or farms would find it easier and less costly to rearrange and diversify their own portfolios. Many would presumably rather hold diversified portfolios of passive investments. If they see an opportunity to monetize a part of their holdings at a good price, some may seize it.

## Improved Capital Market Efficiency

The bull market in international investment will promote capital market efficiency in developing countries. Mutual fund portfolio managers are looking for new stock markets, where good companies may be selling at low multiples. Obtaining information on these companies may not prove as difficult as one might expect. Since investors will not invest if they cannot be sure of getting timely and accurate financial reports, and if they cannot be sure of getting their profits out, foreign companies and governments will attempt to provide information to alleviate investor hesitancy to buy equities. This will increase the efficiency of the markets.

Developing countries wishing to attract capital, or to retain their own internally-generated savings, will have to face the issue of currency convertibility for capital ac-



count transactions. Investors will accept business risk and exchange rate risk, but they will not countenance convertibility risk. Making this change will be painful for the governments of developing countries because taxing capital flows is politically appealing. Wealthy domestic and foreign investors pay these taxes.

Not every developing country will ease capital account controls; and not every developing country will enjoy an inflow of foreign money into its stock market. After controls are eased by developing country governments, local firms will be able to sell securities more easily. The emergence of sophisticated financial intermediation will result in capital markets becoming more efficient and more attractive to foreign investors. Because attracting foreign capital will make the capital stock of developing countries divisible, transferable, and easier to value, expansion of these economies should occur.

### **Growth of Investment Flows**

The wealth and cash flows that become eligible for financial intermediation in the developing countries are surprisingly large. For 1986, total GNP of the developing countries as a group will be approximately \$ 4.6 trillion<sup>6</sup>. Using a capital/output ratio of 3, the value of the capital stock in these countries is approximately \$ 13.8 trillion<sup>7</sup>.

Total claims on the capital stock of these countries are small by comparison. Total LDC foreign debt is approximately \$ 1 trillion, and the value of all publicly traded shares and debt instruments is probably less than \$ 1 trillion. Publicly traded shares account for only a small fraction of total ownership. In Mexico, for example, the total market value of all publicly traded equities was \$ 1.901 billion as of June 30, 1986<sup>8</sup>. In comparison, the capital stock of the country is worth at least 100 times that amount. If \$ 2 trillion is the value of all claims on the capital, the debt ratio (or more precisely securitization ratio) is less than 15%. This means that most income producing properties in the developing world are unlevered; and it also means that most going concerns are making little or no use of formal financial intermediation. In many countries money-lenders are still prevalent. This also means that savers in these countries have a narrow range of financial assets to choose from; understandably enough, many savers buy tangibles or send their savings abroad.

What if some of this illiquid wealth could be securitized and offered on local stock markets? The United States capital stock is 52% securitized; i.e., marketable securities worth 52% of the capital stock are in circulation<sup>9</sup>. If the LDC securitization ratio could be raised to 50%, \$ 4.9 trillion worth of marketable securities would be brought into existence. These would be denominated in local currencies and would be traded on local stock exchanges.

This \$ 4.9 trillion would not be new wealth. It would be transferable claims on existing wealth, packaged in more convenient and dynamic form. The social benefits of creating this new block of marketable securities would be immense. First, the securitization process would help equalize the real rate of return on capital across countries: investors in the capital-rich countries would be able to earn higher returns; and profitable firms in the developing countries would not languish for lack of financing. Second, all savers, not just the ones who live in industrial countries, would be able to rearrange their portfolios more easily. Third, the growth rates of developing countries would rise, as they attracted capital from abroad.

High growth rates of developing country economies are the justification for increased value of foreign equity securities. Using Gordon's common stock valuation model, it

can be shown that when the growth rate of a company's dividend exceeds its risk adjusted cost of equity, the value of its shares rises to infinity<sup>10</sup>.

The Gordon formula is

$$P = \frac{D}{K - G}$$

where

D is the expected dividend,

K is the required rate of return on the security

G is the expected growth rate of the dividend,

and

P is the price or value of the security.

After analyzing the factors affecting companies in developing countries we suggest that many of these companies will experience growth rates of earnings and dividends greater than the required rate of return. A firm's growth rate depends on the retention rate of income and the return on equity, which in turn depends on the firm's debt-to-equity ratio. Developing country firms can be expected to show high growth rates because their retention rate is high and they use little funded debt. In addition, declining interest rates in the United States and lower oil prices (resulting in less inflation) will reduce the required rates of return for equity investors. Both of these factors will result in higher values for foreign securities.

### **Sustaining the World Economic Recovery**

Can this process of securitization generate enough new opportunities to sustain the world economic recovery that began in 1983? Will this process make the present recovery longer and more diffuse? The previous world recovery, from 1975-79, lasted almost five years, before running into the second oil shock, structural barriers, and credit crises. The current recovery may have a better fate: international capital market linkages may make it possible for it to carry on longer.

Trade in goods alone will not be sufficient to sustain the upswing in economic growth. LDC purchases from the United States and Europe are relatively modest. In 1984 the industrial countries exported \$ 319.2 billion to the developing countries<sup>11</sup>. For purposes of comparison, gross saving in the U.S. alone was \$ 696.7 billion in that year<sup>12</sup>. The issue, however, is not only the magnitude of trade flows, but how fast they can grow. If the developing countries were able to import 20% more each year from the industrial countries, their total imports would not be running at a \$ 1 trillion rate until the early 1990's; and it is optimistic to think that the developing countries could increase their imports that rapidly.

Trade in financial instruments offers more potential, and more easily might become profitable enough to sustain the recovery in the industrial countries. How might this happen? Suppose that several developing countries relaxed controls on capital transfers, and permitted the establishment of forward markets in their currencies. This would make it less risky for foreign investors to buy stocks and bonds issued in these countries. Suppose that in these countries \$ 500 billion worth of financial assets was in circulation prior to decontrol. The average yield on these instruments would be high



because of capital scarcity in these countries. Three effects could be expected:

1. The value of existing financial assets would rise, because foreigners would bid up their prices until yields were closer to international standards; so capital would flow into the developing countries.
2. Local investors would sell some of their holdings to foreigners, and reinvest in foreign securities, to obtain the benefits of international diversification. Local investors might also repatriate part of their offshore holdings and buy local higher-yielding securities.
3. Local companies would sell securities, to lower their cost of capital. As their interest expense declined, their profits would rise, and they would be able to expand.

How much new liquidity would this process create? It is plausible that stock and bond prices could rally 20% in one year. Several rallies of more than 100% have already occurred<sup>13</sup>. If the initial \$ 500 billion worth of securities appreciated 20%, it would become worth \$ 600 billion, and if \$ 50 billion of new securities were floated during the same year, the total amount in circulation would reach \$ 650 billion, an increase of \$ 150 billion.

Only a portion of these marketable securities would have to be sold to bring about this repricing. Capital inflows from the industrial countries would not have to be great to trigger a rally. As prices of financial assets rose, holders would reap windfall gains in wealth.

What would be done with this new liquid wealth? Some local holders would sell and send the proceeds abroad, while outsiders would buy, hoping for higher returns than they can earn at home. During a given year some developing countries would experience net outflows, while others would experience net inflows, as growth prospects and rates of return fluctuated. Both the industrial countries and the developing countries would gain through increased efficiency in capital allocation. Risk capital would go where its expected return is highest, and risk averse capital would be able to achieve more complete diversification.

The orders of magnitude of these flows are as follows: – Suppose that of the \$ 150 billion increase in value of marketable securities, half were invested abroad. For \$ 75 billion to leave, \$ 75 billion must have been present; let us suppose that this amount came from abroad; i.e. foreigners and locals swapped securities worth \$ 75 billion. The foreigners would then earn higher returns, and the locals would enjoy greater diversification. If the average yield differential is 5%, holders in the industrial countries would earn \$ 3.75 billion more income each year as a result of the swap. This income stream could be capitalized, and pledged to obtain loans to reinvest in additional high-yielding securities. The process could continue for many years, until the LDC capital stock is more fully securitized.

## Summary

In 1986, share prices in Brazil, India, and South Korea have already rallied, though capital market controls are still partially in place. We suggest that similar rallies will occur in other countries, because a growth process has been initiated. Price appreciation will continue in developing country stock markets because the expected growth

rate is higher than the rate of return that investors require to hold securities of this risk category, and because capital markets within developing countries are becoming more efficient.

## Footnotes

- 1 P. F. Drucker, "The Changed World Economy," *Foreign Affairs*, Spring 1986, p. 768.
- 2 J. C. Edmunds and W. Renforth, "The Costa Rican Solution: An Innovative Approach to Export Promotion," *The Caribbean Review*, Spring 1985, pp. 27-45.
- 3 "How Does Your Mutual Fund Measure Up?" *Barrons*, May 19, 1986, pp. 43-83.
- 4 Data supplied by Lipper Analytical Services, New York, July 8, 1986.
- 5 R. Ibbotson, "Price Performance of Common Stock New Issues", *Journal of Financial Economics*, September 1975, pp. 235-272.
- 6 "The Rising Stars," *Forbes*, May 5, 1986, pp. 106-112.
- 7 P. A. Samuelson, *Economics. An Introductory Analysis*. 9. Edition, New York etc. 1973, p. 742.
- 8 Data supplied by Morgan Stanley Capital Markets International, New York and Geneva, July 8, 1986.
- 9 Salomon Brothers, *Prospects for Financial Markets*, December 18, 1985, pp. 47 and 65.
- 10 D. Durand, "Growth Stocks and the Petersburg Paradox," *Journal of Finance*, September 1957.
- 11 International Monetary Fund, *Direction of Trade Statistics*, 1985 Yearbook.
- 12 Salomon Brothers, *op. cit.* p. 64.
- 13 "The Rising Stars," *Forbes*, *op. cit.*

## References

- Barrons*, "How Does Your Mutual Fund Measure Up?" (May 19, 1986).
- Bergstrom, G. L., "A New Route to Higher Returns and Lower Risks." *Journal of Portfolio Management*, (Fall 1975).
- Drucker, P. F., "The Changed World Economy." *Foreign Affairs*, (Spring 1986).
- Durand, D., "Growth Stocks and the Petersburg Paradox." *Journal of Finance*, (September 1957).
- Edmunds, J. C. and W. Renforth, "The Costa Rican Solution: An Innovative Approach to Export Promotion." *The Caribbean Review*, (Spring 1985).
- Forbes*, "The Rising Stars," (May 5, 1986).
- Grantham, J., "You Can't Fool All of the People All of the Time." *Journal of Portfolio Management*, (Winter 1986).
- Ibbotson, R., "Price Performance of Common Stock New Issues". *Journal of Financial Economics*, (September 1975).
- International Monetary Fund, *Direction of Trade Statistics*, 1985 Yearbook.
- Salomon Brothers, *Prospects for Financial Markets*, (December 18, 1985).
- Saumelson P. A., *Economics. An Introductory Analysis*. 9. Edition, New York etc 1973.
- Swanson, J., *Investing Internationally to Reduce Risk and Enhance Return*. New York: Morgan Guaranty Trust Company, 1979.