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Can Investors Profit from Devaluations?

INTRODUCTION

The recent devaluations in Asia have drawn attention to the risk investors face from investing in foreign stock markets. Investors in those countries have suffered losses through both devaluations in the currency, and through declines in the local stock markets. As a result, some Asian markets have declined by 90% in dollar terms in the course of a few months. These are devastating losses. Investors who are already in the Asian markets must decide whether to continue to invest in these markets despite the losses they have already sustained, and those who were not invested in the region prior to the drops in these stock markets and currencies must
determine whether these drops are buying opportunities, or whether they should avoid the Asian markets altogether.

What has been amazing about the Asian collapse has been the speed and severity of the declines. The only time the United States' stock market suffered a similar collapse was during the Great Depression when the Dow Jones Industrials fell by 89% between 1929 and 1933. German investors suffered real losses of over 90% during the hyperinflation of the 1920s as did Japanese investors during the post-war inflation of the 1940s. Finally, Hong Kong's Hang Seng index fell by 93% in the 1973-1974 bear market when housing and other prices collapsed. Although 90% collapses in stock market values are not unprecedented, declines of this magnitude rarely occur as quickly as they have in East Asia during the past six months.

So are the Asian devaluations a buying opportunity, or a warning? To answer this question we will look at 30 cases of devaluations which have occurred since 1980 to determine whether investors who bought at the time of the devaluations or right after profited from their investments one year later. We find that in some cases, devaluations can provide buying opportunities for 2 investors, though not always, and that a few simple investment rules can help investors determine whether to take advantage of the devaluation, or not.

THE EFFECT OF DEVALUATIONS ON THE ECONOMY

Every currency has at one time or another devalued. The primary reason for a devaluation is that the government had maintained a fixed exchange rate over a period of time which became unsustainable. Fixed exchange rates eliminate exchange rate risk as long as the exchange rate remains fixed. If the supply of a country's currency exceeds the demand for the currency, the currency must decline in value. If a country imports more goods than it exports, there will be pressure on the currency to devalue, but if the trade deficit is offset by capital inflows into the country for investment purposes, the country can continue to run the trade deficit without being forced to devalue. If the capital inflows dry up, the country may be able to avoid a devaluation by buying its own currency in the market to replace the lack of capital investment, but once currency reserves run out, devaluation becomes inevitable.

If speculators suspect that the government will be unable to defend its currency, they may short the currency, trying to profit from the devaluation, and the speculators may end up pushing the currency over the edge, precipitating a devaluation. Speculators take advantage of these

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situations because their risk is minimal. Since a revaluation is unlikely, the most they would likely lose would be their transaction costs, but if they are right, then they can make very large profits. George Soros made over $1 billion when Great Britain devalued in 1992.

If the country which devalues has borrowed heavily in a foreign currency, usually dollars, then the cost of their debt can skyrocket, forcing firms into bankruptcy or into default. These problems can push the economy into a recession during which firms will lose money, pushing down stock prices. On the other hand, the devaluation can be an opportunity for other firms. The devaluation can allow the government to roll over debt which may have been immediately due, and can force governments to make structural adjustments in their economies, often under guidance of the International Monetary Fund, which would have otherwise been politically difficult. Moreover, the 3 devaluations make exports cheaper, and imports more expensive, a combination which can spur demand once the problems of restructuring have been overcome. Clearly, devaluations provide both problems and opportunities, but how are investors affected?

DEVALUATIONS PAST AND PRESENT

Devaluations, speculative attacks on currencies, hot money flows, and financial collapses have occurred throughout this century. The Bretton Woods system of fixed exchange rates which followed World War II was designed to eliminate the financial chaos caused by the competitive devaluations of the 1930s and the “hot money” flows which it was felt contributed to the financial problems of the 1930s. Before Bretton Woods’ system of fixed exchange rates ended in 1973, there were periodic speculative attacks on currencies, contributing to devaluations of the British pound and other currencies. The speculative attacks by hedge fund managers on currencies today are nothing new, but are part and parcel of the global financial system.

The current round of devaluations in Asia started with the devaluation in the Thai Baht last summer and has continued into 1998 with almost every East Asian country being forced to devalue with the exception, so far, of China and Hong Kong. The Indonesian Rupiah has been the hardest hit, declining by over 85% at its worst levels, and the Malaysian Ringgit, the Thai Baht and the Korean Won declined by over 50% at their worst levels. The Philippine peso fell by over 40%, and the Taiwan and Singapore Dollar have each fallen by around 20%.

Similar declines have occurred in the local stock markets. Indonesia, Malaysia, the Philippines, South Korea and Thailand have all seen drops of over 50% in their stock market indices from their all-time highs, while Singapore’s index fell by 40% and Taiwan’s by 30%. Add the currency losses to the stock market losses and investors have suffered terribly as a result of the collapses in East Asian stock markets and currencies. Nevertheless, the question remains, should investors put money into these markets? Or is the worst yet to come?

STOCK MARKETS AND DEVALUATIONS

Our research shows that in most cases, devaluations should be treated as buying opportunities, not reasons to sell stocks in the countries which have suffered the devaluations. Yale Hirsch noted this relationship in the 1969 edition of the Stock Trader’s Almanac. He showed that

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devaluations of the dollar in the Spring of 1933 and February 1934, of the British pound in 1931, 1949 and 1967, and of the French franc in 1958 were followed by bull markets in the year which followed. Another example of this was the stabilization of the German mark in 1948, and it should be noted that the bull market of the 1950s, which reversed the weak behavior in stock prices which had persisted from 1929 to 1949, followed the stabilization of the world's currencies in September of 1949.

There are several reasons why a devaluation should be bullish for stocks in the long run. The first reason is that a devaluation is likely to cause stocks to become oversold. Fearing the worst, investors panic and sell stocks at any price. As a result, stocks decline to irrationally low levels which make the stocks bargains for bottom fishers. Second, the devaluation makes the country's exports cheaper enabling the country to increase their exports over time. The combination of panic and profit opportunities allow stocks to move back up in price.

On the other hand, if domestic companies have borrowed heavily in foreign currencies, the debt burden of the country can lead to bankruptcies among domestic companies. Moreover, governments must restore faith in their currencies to entice foreign investors to begin investing in the country again. This usually means following reform recommendations made by the International Monetary Fund which increase competition and open up the economy. Failure to make these structural reforms can lead to further declines in the currencies and stock markets until markets are convinced that governments and corporations are serious about addressing and resolving their financial problems.

Because of uncertainties over how the government and firms will respond to the devaluation, the degree of risk to investors after a devaluation is extremely high, but is this always so? Let's see what the historical evidence shows on the performance of stock markets following devaluations in the world's major stock markets in the past 20 years

THE EVIDENCE ON DEVALUATIONS

To study the effect of devaluations on stock markets, we looked at every devaluation that occurred in countries with a stock market since 1980. We want to note that the focus of this analysis is on devaluations and not depreciations. Excluded from this list are many of the industrialized European countries because their currencies have floated since the 1970s. A devaluation is a sudden decline in the value of the currency on the order of 10% or more in a single month, and it is often followed by further devaluation of the currency in the future. Since countries such as the United States, Japan and Germany allow markets to determine the value of their currencies, no sudden devaluations have occurred in their currencies in the past 25 years, although their currencies have moved up and down significantly over long periods of time.

In order for a devaluation to occur, the currency must have been fixed relative to other currencies over a period of time. Hence, the British pound devalued against the European currencies in September 1992 when it left the system of fixed exchange rates set up by members of the European Monetary Union. Nevertheless, governments in countries which do float can try to reverse the appreciation of their currency as has happened in Japan and the

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United States.

After analyzing the devaluations which have occurred over the past 20 years, we found certain patterns in the behavior of the stock markets and in order to better analyze the problem, we have divided the data set into three groups. The first group consists of countries whose currencies either stabilized or even appreciated after the devaluation; the second group includes countries whose currencies continued to depreciate after the initial devaluation; and the third group includes countries whose stock markets had been in a bull market prior to the devaluation. A bull market was said to have occurred if foreign investors had a positive return in the six months prior to the devaluation of more than 10 per cent. Finally, we include a fourth group which includes two countries, the United States and Japan, which did not devalue, but acted to reverse long-term appreciations in the value of their currency.

In each case we have asked three questions. How much did investors lose in the six months prior to the devaluation? How much would investors have made if they had invested at the end of the month in which the devaluation occurred, and owned stocks for the next twelve months? Finally, could investors have increased their profits by investing in the stock market three months after the devaluation and owning the stocks for the next twelve months?

In each case we assume a single buy-and-hold decision by investors. We make no attempt to time the market and pick the bottom of the decline in either the stock market or the currency. It should be noted that all returns are calculated using price indices. Dividends would have further increased returns to shareholders, increasing investors' total returns.

COUNTRIES WHOSE CURRENCY STABILIZED OR APPRECIATED AFTER THE DEVALUATION

Our first group includes those countries whose currency appreciated or stabilized after the devaluation. Even if stock bounce back after the devaluation, continued depreciation of the currency could wipe out any stock market gains which occur. Of course, it is not possible to know whether the country can avoid further depreciation once the devaluation has occurred, but the returns in these countries were significantly different enough from the second group of countries that we felt it useful to separate the countries into these two groups.

The table below shows the size of the devaluations of the currencies in the six months prior to the actual devaluation and the appreciation that occurred in the year after the devaluation.

Country	Devaluation Date	Change in Currency 6 Mo to Devaluation	Change in Currency 1-Yr After Devaluation
Australia	March 1983	-9.11%	8.37%
Australia	July 1986	-16.42%	16.68%
New Zealand	March 1983	-10.39%	2.67%
New Zealand	July 1984	-23.38%	6.01%

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Thailand	November 1984	-15.03%	3.64%

The second table shows the returns to local investors and to foreign investors, as measured in dollars, in the six months prior to the devaluation, the twelve months after the devaluation, and what happened to investors who waited until three months after the devaluation to invest in the stock market.

Country	Domestic Return, 6-Mo Before	Domestic Return, 1-Yr After	Domestic Return, Wait 3-Mo	Dollar Returns, 6-Mo. Before	Dollar Returns, 1-Yr After	Dollar Returns, Wait 3-Mo
Australia	1.91%	46.38%	8.91%	-7.38%	58.63%	7.27%
Australia	4.50%	80.70%	80.26%	-12.66%	110.85%	89.72%
New Zealand	14.54%	75.46%	53.00%	2.64%	80.14%	48.57%
New Zealand	-11.14%	39.68%	34.19%	-31.92%	48.08%	58.73%
Thailand	8.80%	2.01%	-6.90%	-7.56%	5.73%	-0.86%
Average	**3.72%**	**48.85%**	**33.89%**	**-11.38%**	**60.69%**	**40.09%**

As can be seen by the data, none of the stock markets in this group had been in bear markets prior to the devaluation, and the losses to foreign investors, even after the devaluations occurred, were small. None of these countries faced major financial crises as a result of the devaluations. Investors were able to make significant returns in the twelve months that followed, averaging 60% if they invested when the devaluation occurred, and 40% if they waited three months. In these cases, there was no benefit to waiting for the currencies to stabilize to take advantage of the devaluation. Those who immediately invested in these countries benefited from the bull markets which followed the devaluations without having to suffer losses due to continued depreciations of the currencies.

COUNTRIES WHICH DEPRECIATED FOLLOWING THE DEVALUATIONS

The second group includes countries which saw large declines in the value of their currencies before and/or after the devaluation occurred.

Country	Devaluation Date	Change in Currency 6-Mo to Devaluation	Change in Currency 1-Yr After Devaluation
Australia	February 1985	-14.00%	-0.26%
Finland	October 1982	-17.91%	-2.79%

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Hong Kong	October 1982	-15.35%	-11.98%
India	March 1993	-17.10%	-0.45%
India	September 1995	-7.38%	-4.89%
Indonesia	September 1986	-31.11%	-1.03%
Italy	September 1992	0.48%	-22.07%
Mexico	December 1982	-50.26%	-32.94%
Mexico	December 1994	-36.34%	-28.64%
Norway	November 1992	3.63%	-14.62%
South Korea	January 1980	-16.55%	-12.87%
Spain	March 1980	-8.68%	-15.24%
Spain	September 1992	4.84%	-24.45%
Sweden	October 1982	-21.82%	-4.90%
Sweden	November 1992	-15.53%	-19.02%
Thailand	July 1981	-10.09%	0.00%
United Kingdom	February 1981	-7.93%	-17.60%
United Kingdom	September 1992	-11.15%	-5.35%

In a couple cases, as with Italy, Norway and Spain, the currencies had been appreciating in the months prior to the devaluation, so that the currency actually appreciated in the six months leading up to the devaluation, even though the currency devalued significantly during the month of the devaluation, and continued to depreciate during the following year. These devaluations were often accompanied by financial crises which required refinancing of foreign debts, or restructuring
of the economy, often under IMF supervision. The size of the devaluations gives testimony to the extent of the problems these countries faced.

Now, let's see how investors fared in the countries whose currencies devalued and continued to depreciate.

Country	Domestic Return, 6-Mo Before	Domestic Returns, 1-Yr Later	Domestic Returns, Wait 3-Mo	Dollar Return, 6-Mo Before	Dollar Returns, 1-Yr Later	Dollar Returns, Wait 3-Mo
Australia	8.05%	32.55%	42.09%	-7.08%	32.21%	54.74%
Finland	5.93%	60.81%	67.00%	-13.04%	56.34%	52.08%
Hong Kong	-41.67%	12.09%	11.63%	-50.62%	-1.34%	-6.81%
India	-46.78%	65.70%	83.46%	-55.88%	64.97%	83.29%
India	6.73%	-6.92%	4.82%	-1.15%	-11.48%	2.64%
Indonesia	-0.41%	23.88%	18.50%	-31.39%	22.60%	17.85%
Italy	-27.69%	63.37%	38.79%	-27.34%	27.32%	19.80%
Mexico	19.47%	262.55%	300.35%	-40.58%	143.13%	178.03%
Mexico	5.00%	16.96%	67.63%	-33.16%	-16.54%	51.41%
Norway	-20.43%	60.61%	71.09%	-17.54%	37.14%	53.99%

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South Korea	-4.57%	-0.16%	5.50%	-20.36%	-13.01%	-8.24%
Spain	-7.30%	21.14%	18.11%	-15.35%	2.68%	-13.02%
Spain	-24.47%	48.88%	50.04%	-20.81%	12.48%	20.93%
Sweden	24.22%	90.48%	65.76%	-2.88%	81.45%	51.12%
Sweden	-9.38%	43.44%	38.99%	-23.46%	16.16%	35.83%
Thailand	-12.04%	-3.09%	20.09%	-20.91%	-3.09%	20.09%
United Kingdom	7.67%	4.18%	6.93%	-0.87%	-14.16%	-16.89%
United Kingdom	2.94%	24.90%	23.34%	-8.53%	18.22%	20.84%
Average	-6.37%	45.63%	51.90%	-21.72	25.26	34.32

The results are impressive. On average, investors who bought stocks during the month of the devaluation made a 45.63% return in local currency and a 25.26% rate of return in dollars. This is significantly higher than investors receive in any given year in the stock market. Although domestic investors received a rate of return similar to countries in the first group, because of continued depreciation in the currency, foreign investors received “only” a 25.26% rate of return on average. Although this is significantly lower than the 60% rate of return from the first group which we analyzed, it is still an impressive return by any measure.

It should also be noted that in these cases, investors benefited from waiting to invest in the markets after the devaluations had occurred earning, on average, a 34% rate of return in the year following their entry into the stock market. Whereas investors in the first group of countries received lower returns by waiting three months to invest their money, investors in this group received a higher return by waiting. Amazingly, there was not a single case of losses to investors in local currency who waited three months after the devaluation to invest. One reason for this is that devaluations and continued depreciations cause inflation to occur in that country creating paper, but not real profits. This fact is supported by observing that despite the gains in local stock market indices, foreign investors still lost money in some of the cases. Nevertheless, on average the returns were significant. Investors who were willing to invest in the uncertain environment which followed the devaluation were rewarded handsomely.

COUNTRIES IN BULL MARKETS PRIOR TO THE DEVALUATIONS

The principal criterion for belonging to this group is that foreign investors had profited prior to the devaluation because the market had increased in value by an amount greater than the size of the devaluation. The four cases where this occurred are listed below.

Country	Devaluation Date	Change in Currency 6-Mo to Devaluation	Change in Currency 1-Yr after Devaluation
Hong Kong	January 1981	-6.76%	-9.04%
India	July 1991	-27.84%	-0.05%

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Italy	January 1981	-16.08%	-19.00%
South Africa	February 1986	-5.44%	-13.65%

As can be seen in the table below, these countries failed to provide significant returns to investors after the devaluations occurred. In three of the four cases, foreign investors lost money by remaining in the markets after the devaluation. Although there is no discernible pattern in the returns to domestic investors, the absence of high returns is obvious. If a stock market has been in a bull market prior to a devaluation, the devaluation confers no benefit on domestic investors, and poses the risk to foreign investors that continued depreciation in the currency following the devaluation will create foreign exchange losses which exceed any gains which might occur in the local stock market.

Country	Domestic Return, 6-Mo Before	Domestic Return, 1-Yr Later	Domestic Return, Wait 3-Mo	Dollar Return, 6-Mo Before	Dollar Return, 1-Yr Later	Dollar Return, Wait 3-Mo
Hong Kong	36.13%	-10.74%	-7.08%	26.94%	-18.82%	-14.14%
India	66.17%	67.06%	49.92%	19.90%	66.17%	50.03%
Italy	86.07%	-10.25%	-29.34%	56.15%	-27.32%	-39.90%
South Africa	20.96%	6.56%	2.98%	14.38%	-7.98%	0.58%
Average	52.33%	13.15%	4.12%	29.34%	3.02%	-0.86%

REVERSALS IN CURRENCY APPRECIATIONS

We look here at two special cases in which even though a currency did not devalue, the government made a concerted effort to reverse the appreciation in their currency. The two cases are the United States Dollar in March 1985 and the Japanese Yen in June 1995. These currencies had been appreciating significantly until those dates, only to be followed by a depreciation of 22.67% in the Japanese Yen against the Dollar in the twelve months after June 1995, and a decline in the Federal Reserve's Dollar Index of 31.25% in the twelve months after March 1985.

In both cases, stock markets in the two countries rallied after the reversal in the currencies. The Nikkei 225 had fallen by 13.22% in the six months prior to June 1995 and rallied 20.02% in the twelve months which followed the reversal. The Standard and Poor's 500 index had risen 8.77% in the six months prior to March 1985, and continued to rally another 26.13% after the reversal in the value of the dollar.

Although these two countries do not provide a large enough data set to provide any statistically significant results, the results reinforce the evidence above that a currency devaluation in the currency is generally a bullish rather than a bearish event for investors.

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CONCLUSION ON DEVALUATIONS: TO INVEST OR NOT TO INVEST

The evidence presented above makes it clear that devaluations are bullish not bearishstock market events. The combination of panic selling in the currency and the stock markets, and profit opportunities which arise from devaluations in local currencies, enable stock markets to bounce back significantly in the year following the devaluation. The exception to this rule is stock markets which had been in a bull market prior to the devaluation, as measured by whether foreign investors had earned a return of 10% or greater in the six months prior to the devaluation. In those cases, investors made no significant gains in the year which followed.

Domestic investors averaged over a 40% rate of return by investing in their own stock markets when the devaluation occurred. Foreign investors' returns, as measured in dollars, depended upon whether the currency continued to devalue or not. Foreign investors in countries whose stock markets had not fallen dramatically and whose currencies stabilized after the devaluation received returns, on average of about 60% in the year that followed. Even investing in countries hard hit by the devaluations and whose currencies continued to depreciate managed to give foreign investors an average return of 25%. Waiting three months after the devaluation to invest was the best strategy for foreign investors since this returned an average of over 35% for all of the cases where stock markets had not been in bull markets prior to the devaluations.

Foreign investors who had been in the markets prior to the devaluations suffered heavy losses, averaging 11% for the first group of countries and 21% for the second group. Based upon this analysis, however, those who had suffered these losses would have been advised not to sell out. Since the money had already been lost, the best way of "getting the money back" would have been to stick it out in the stock market in which the devaluation had occurred. In fact, investors would have been advised to add to their stock market positions, rather than reduce them, in order to increase their returns.

There are, of course, any number of ways which investors can take advantage of devaluations to increase their returns. Institutional investors can invest directly into these stock markets through individual companies. The leading blue chip companies would be the safest investments to make in these stock markets. Individual investors can invest either through country funds which are traded on the New York and American Stock Exchange, or through American Depository Receipts. Again, investing in the largest blue chip companies which have ADRs listed in the American market would be the safest investment if the individual investor decided not to purchase a country fund.

Whether the current Asian devaluations provide profitable returns to investors in the year to come remains to be seen, but the historical evidence shows that the returns to investors who went into these stock markets when the devaluations occurred are more likely to be positive than negative by the end of 1998.

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