The EMA "*Phoenix*": soaring on market "hype"

Like the legendary Phoenix *which had burned itself to death only to rise from the ashes with the full freshness of youth, depressed emerging markets often confound investors with an unexpected burst into a bull run. The upswing is almost invariably triggered by a turnaround in "market hype". Tracing the cyclicality of that hype offers great opportunity for medium-term investors.*

For foreign investors, the promise and risk of emerging markets are both long- and short-term in nature. From a long-term perspective, emerging markets offer a potential for superior earning growth, associated with rapid industrialization, expanding domestic markets and changing social and legal structures. From a shorter-term standpoint, the hallmark of emerging markets is their ongoing "discovery". The process begins with figuring out which of the "pre-emerging" markets are about to emerge and continues until markets have matured.

However, compared with the information explosion in developed economies, emerging market data, both at the micro and macro levels, are meager and inaccurate. Moreover, given the continuous flux of these economies, there is considerable disagreement about the risks as well as prospects facing their markets. The result is that in the ***short and medium term***, emerging markets are destined to be affected more by the ups and downs of ***investors' "hype"***, than by changes in their so-called "fair value".

Value and hype

Fair value is a long-term concept, involving the use of past trends to project a future trajectory. For equities, such projection could be derived from two basic factors: the long-term earning potential of the underlying stocks and a corresponding "normal" rate of return (adjusted for risk) to discount this potential into its present value.

Estimated in this way, the market's fair value is a slowly changing magnitude. The market's price, on the other hand, is much more volatile, oscillating sharply above and below its "proper" fair value. The difference between the market's price and its fair value derives from two principal factors.

1. Inaccuracies in estimating fair value. The determination of fair value depends on one's own theoretical framework and subjective hunches about the future. Moreover, the necessary data for such computations are not freely available in emerging markets. This means that fair value is often not an objective magnitude, but rather a ***wide range of opinions***, so measurement is inherently inaccurate.

2. Market inefficiencies and investors' irrationality. Of course, markets will deviate from their fair value even if the latter could be objectively and accurately measured, and the divergence could persist for a long period of time. One principal reason is market inefficiency, which arises when investors try to not only to read the market, but also "out-guess" what other investors think about it.

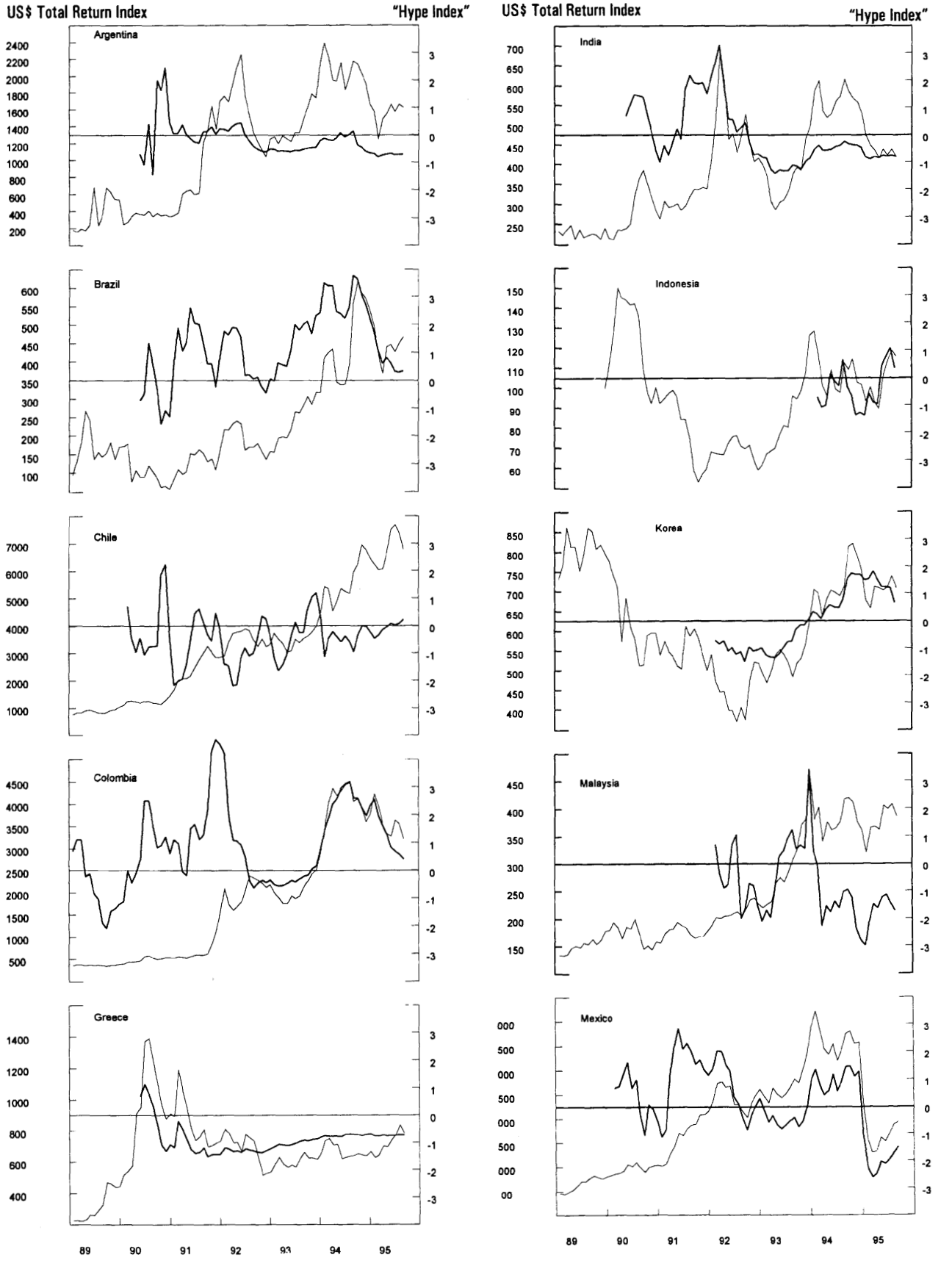
The other, and perhaps more important reason for under- and over-valuation is investors' irrationality, or "hype". Retail investors often behave as a herd, jumping into a rising market near its cyclical peak and bailing out just before it has bottomed. The main cause is the irrational victory of greed over fear in rising markets, and of fear over greed in falling markets. Fund managers generally do better balancing these twin drives. However, their constant attempt to "beat the average" forces them not to venture too far from the herd, so their actions often reinforce rather than counteract market excesses.

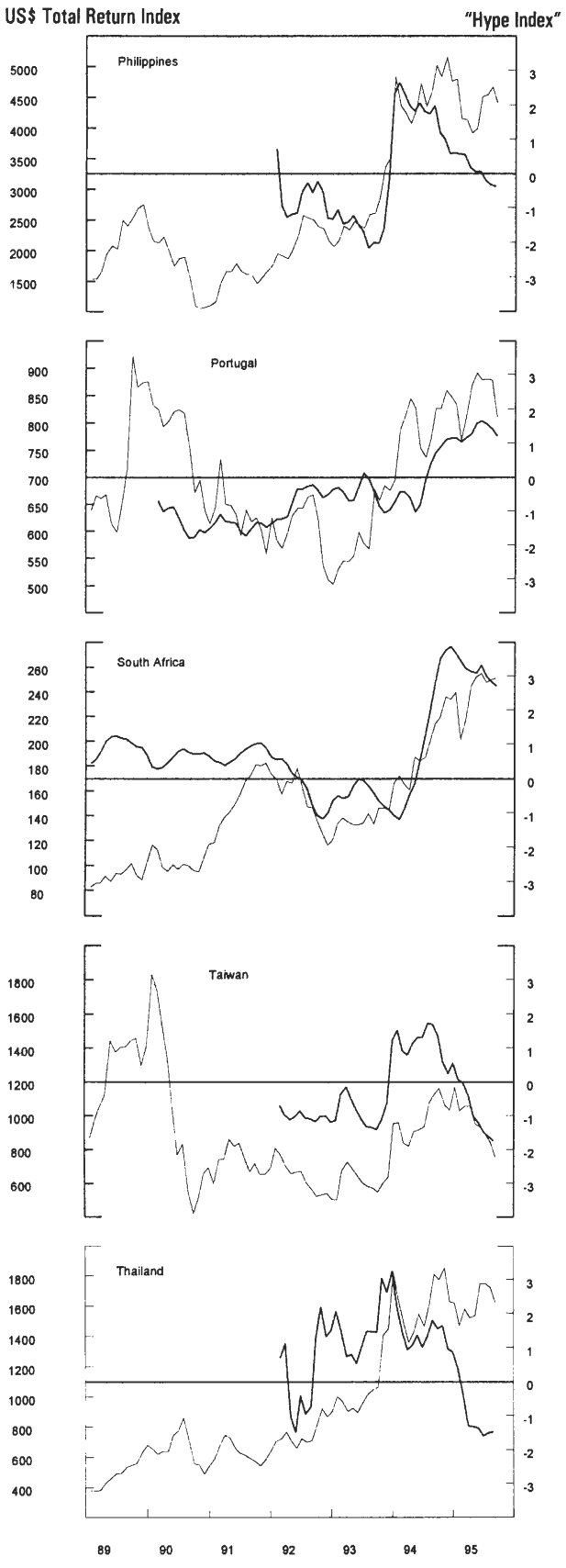
Although both market inefficiency and investors' irrationality cause equity prices to deviate from their fair value, the nature of their impact is different. While the former is generally irregular and hard to predict, the latter tends to be ***self-reinforcing, cyclical and hence easier to foresee***. For this reason, a proper reading of market "hype" could offer a major opportunity for the alert investor.

The EMA *Phoenix*

Building on these general principles, we have developed an alternative asset allocation model for emerging markets. Unlike EMA's existing model, which is aimed at the long-term investor by picking cheap markets with good fundamentals, our new *Phoenix* model -- termed after the legendary sand bird -- is directed at medium-term investors, selecting markets which are ***just ready to surge.***

The first step in constructing this model is to estimate the fair value of each market, based on prevailing earnings per share, long-term projections for earning growth and an approximation of the currently available "normal" rate of return. The next stage is to compute a "Hype Index". This is done by taking the ratio between the market's price and its fair value and expressing it as a normalized deviation from average.


US$ Total Return Index
"Hype Index"
Argentina
Brazil
Chile
Colombia
Greece
India
Indonesia
Korea
Malaysia
Mexico
89
90
91
92
93
94
95


US$ Total Return Index
"Hype Index"
Philippines
Portugal
South Africa
Taiwan
Thailand
89
90
91
92
93
94
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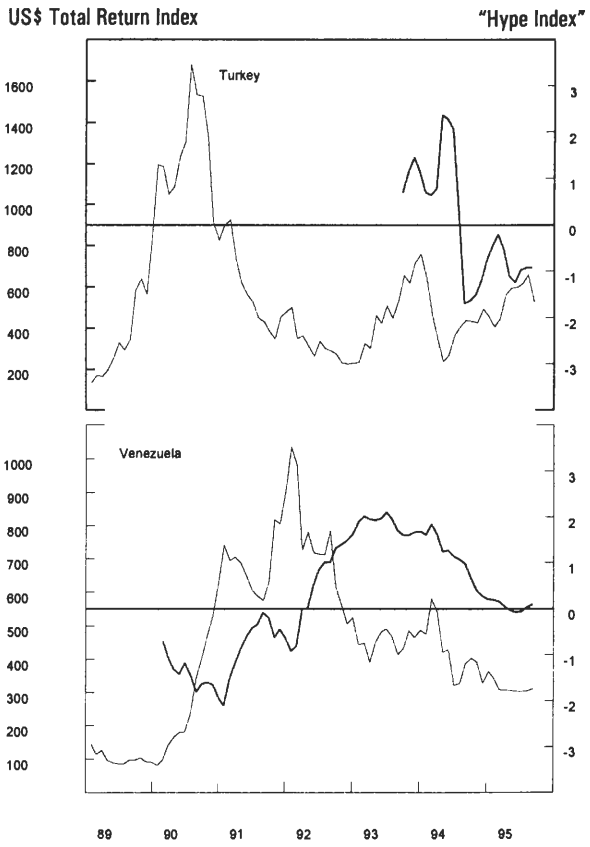

US$ Total Return Index
"Hype Index"
Turkey
Venezuela
89
90
91
92
93
94
95

The charts on pages 11-12 above contrast for each of the 17 countries currently included in our *Phoenix* model, the market's $ total return index against its respective "Hype Index".[1] In general, the "Hype Index" oscillates within 1.5 to 2 standard deviations above and below its mean. Occasionally, much larger deviations can be observed.

Strictly speaking, movements in the "Hype Index" are affected by the irrational cyclicality of investors' sentiment, as well as by secular inaccuracies in measuring fair value and the irregular impact of market inefficiencies. All of these effects are evident in the charts. Some countries, such as Brazil, Chile, Colombia and Mexico, show very pronounced cyclicality. In others, like Argentina, Greece or Portugal, the cyclicality is "contaminated" by prolonged periods in which the "Hype Index" lies above or below its average -- possibly because of market inefficiencies or inaccuracies in our measurement.

However, the cyclical nature of investors' "hype" is clearly paramount, and as the charts indicate, this "hype" is closely correlated with ***changes*** in the market's total return index. This correlation becomes highly useful when market "hype" reaches ***extreme lows***. When that happens, the cyclical nature of the "Hype Index" means that investors are approaching the point in which their greed will finally overcome their fear. At this stage, the market's depressed sentiment limits the risk of any further downside, while providing a large upside potential. When the "Hype Index" finally begins to recover, its surge could be very rapid, overshadowing any changes in fair value and market inefficiency. The net effect is usually a large rise in stock prices.

Picking the right markets

The *Phoenix* asset allocation model is based on two rules. First, we have chosen "entry" and "exit" points. The entry point represents an ultra low reading on the "Hype Index". The exit point is a slightly higher but still negative value for the index. A country becomes a potential buy once its "Hype Index" drops below the entry point. When the "Hype Index" recovers above this entry point but is still below the exit point, the country remains a buy only as long as the index continues to trend upward. Once the "Hype Index" surpasses the exit point, the country is no longer considered a potential buy. The idea is to buy when "hype" is very depressed and hence highly likely to recover, and sell when the risk of reversal is still minimal.

What makes this strategy work is our ability to choose among many markets -- currently 17 and hopefully more in the future. *Phoenix*'s second rule determines allocation on the basis of "hype": the greater the market's pessimism, indicated by the ***negative magnitude*** of the "Hype Index", the greater the share of assets allocated to that country. However, not all potential buys need be included. When several markets qualify -- but some with a "Hype Index" ***far more depressed*** than others -- it is in fact less risky to concentrate only on the former and ignore the latter. This is reflected in our allocation algorithm which ***over***-emphasizes the weights of markets with a very depressed "Hype Index" at the expense of those whose index is only "mildly" depressed. The model also provides for "dry seasons", without any buy candidates. When no country in our universe qualifies, the model's recommendation is to stay away from emerging markets, parking one's assets in US T-bills.

Simulation

Because of data deficiencies, the model begins with only part of the countries, adding the rest as the necessary data become available.[2]

The table on pages 14-15 provides details from a simulated *Phoenix* run. Countries designated as "Phoenix best buy" represent potential buys with "Hype Indices" fulfilling rule one. For each month, these countries are listed from the best to the worst. The following column in the table gives the actual percent allocations for the month based on rule two, and as we explained above, these sometimes do not include all potential buys.

Usually, the *Phoenix* allocation comprises one or two countries. Occasionally, the number rises up to four (for instance in August and September 1995), or drops to zero when the model recommends to stay away from emerging markets altogether (for instance, between March and July 1990 and in February 1994).

The model's statistics are charted in the figure on page 16 and summarized in the table.

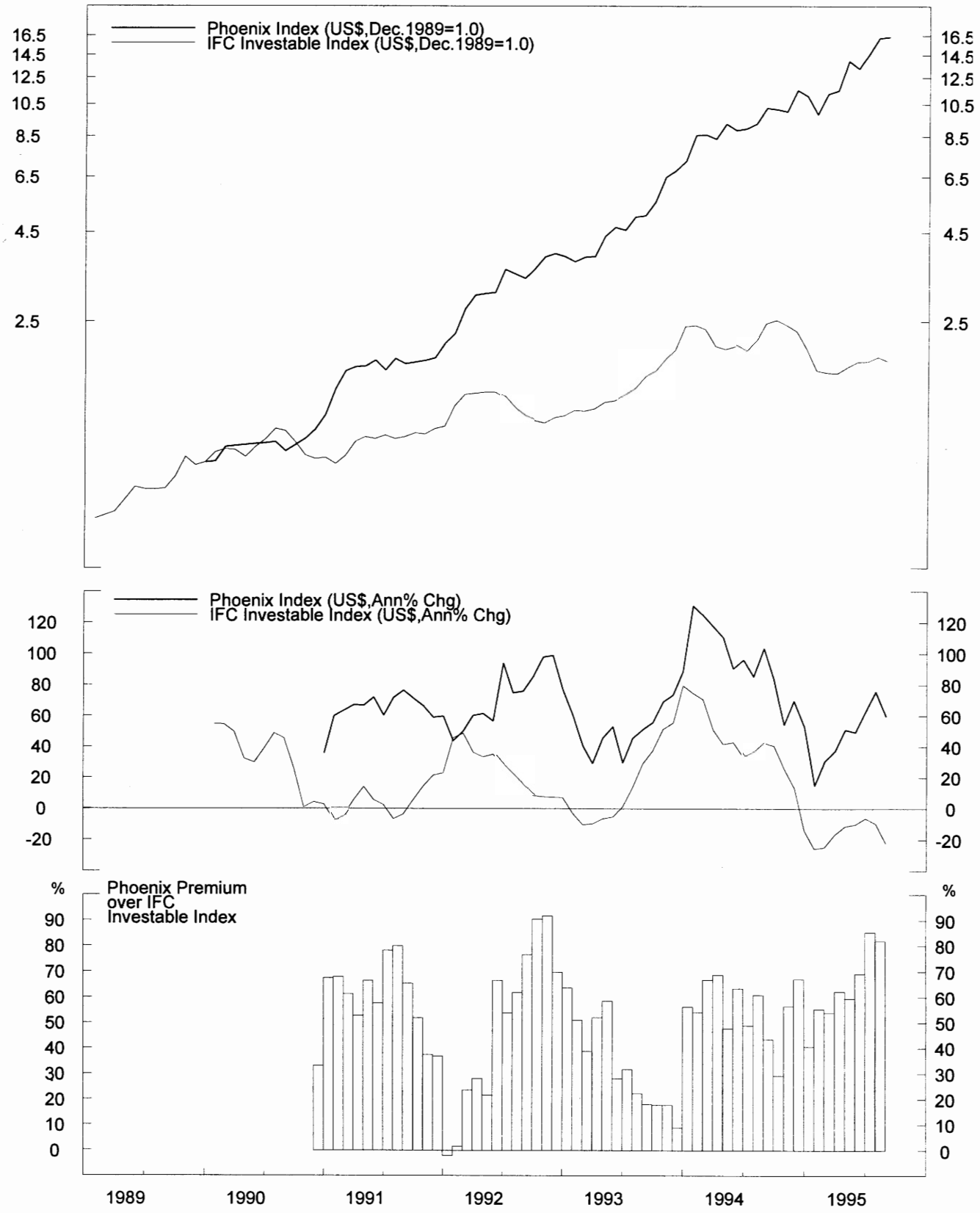
[1] Computations of the latter are based on real-time data. For instance, Mexico's "Hype Index" in December 1992 is calculated with data available at that time and not subsequently.

[2] ***1989***: Colombia, South Africa; ***1990***: Argentina, Brazil, Chile, Greece, India, Mexico, Portugal, Venezuela; ***1992***: Korea, Malaysia, Philippines, Taiwan, Thailand; ***1994***: Indonesia, Turkey.

Month	*Phoenix* best buy for the month *(decending order)*	*Phoenix* allocation for the month *(% share of total portfolio)*	*Phoenix* index at end of month *(Dec 1989=1.00)*	*Phoenix* portfolio turnover *(% of total)*
Jan 1990	Colombia	Colombia 100	1.005	100
Feb 1990	Colombia	Colombia 100	1.105	0
Mar 1990	-- Stay out of emerging markets --	US T-bills	1.112	100
Apr 1990	-- Stay out of emerging markets --	US T-bills	1.120	0
May 1990	-- Stay out of emerging markets --	US T-bills	1.127	0
Jun 1990	-- Stay out of emerging markets --	US T-bills	1.134	0
Jul 1990	-- Stay out of emerging markets --	US T-bills	1.141	0
Aug 1990	Portugal, Venezuela	Portugal 96.3; Venezuela 3.7	1.074	100
Sep 1990	Venezuela, Portugal	Venezuela 51.6; Portugal 48.4	1.119	47.9
Oct 1990	Portugal, Venezuela	Portugal 94.4; Venezuela 5.6	1.165	46
Nov 1990	Venezuela, Brazil, Portugal	Venezuela 57.5; Portugal 21.3; Brazil 21.2	1.238	73.1
Dec 1990	Venezuela, Portugal, Greece	Venezuela 60.6; Portugal 39.4	1.359	21.2
			1990 % chg: 35.9	***1990 avg: 40.7***
Jan 1991	Venezuela, Portugal, Brazil	Venezuela 100	1.607	39.4
Feb 1991	Chile, Venezuela, Portugal	Chile 68.1; Venezuela 31.9	1.808	68.1
Mar 1991	Chile, Venezuela, Portugal	Chile 100	1.857	31.9
Apr 1991	Chile, Portugal, Venezuela	Chile 100	1.866	0
May 1991	Chile, Portugal, Venezuela	Chile 90; Portugal 10	1.938	10
Jun 1991	Portugal, Greece	Portugal 97.9; Greece 2.1	1.816	90
Jul 1991	Portugal, Greece	Portugal 99.9; Greece 0.1	1.960	2
Aug 1991	Portugal, Greece	Portugal 100	1.894	0.1
Sep 1991	Portugal	Portugal 100	1.915	0
Oct 1991	Greece, Portugal	Greece 99.2; Portugal 0.8	1.937	99.2
Nov 1991	Greece, Portugal	Greece 89.5 Portugal 10.5	1.969	9.7
Dec 1991	Portugal, Greece	Portugal 85.3; Greece 14.7	2.171	74.8
			1991 % chg: 59.7	***1991 avg: 35.4***
Jan 1992	Greece, Portugal	Greece 77.1; Portugal 22.9	2.313	62.4
Feb 1992	Chile, Portugal, Greece	Chile 99.5; Portugal 0.4: Greece 0.1	2.717	99.5
Mar 1992	Chile, Portugal, Greece	Chile 99.8; Portugal 0.1; Greece 0.1	2.974	0.3
Apr 1992	Chile, Greece, Portugal	Chile 100	3.011	0.2
May 1992	Chile, Greece	Chile 100	3.037	0
Jun 1992	Greece, Chile	Greece 99.9; Chile 0.1	3.525	99.9
Jul 1992	Greece, Chile	Greece 100	3.426	0.1
Aug 1992	Chile, Greece	Greece 100	3.330	0
Sep 1992	Malaysia, Greece, Chile	Malaysia 100	3.543	100
Oct 1992	Malaysia, Korea, Greece	Malaysia 99; Korea 1.0	3.834	1
Nov 1992	Greece, Taiwan, Korea	Greece 100	3.917	100
Dec 1992	Philipines, Greece, Korea, Taiwan	Philipines 65.5; Greece 34.5	3.836	65.5
			1992 % chg: 76.7	***1992 avg: 44.1***

Month	*Phoenix* best buy for the month *(decending order)*	*Phoenix* allocation for the month *(% share of total portfolio)*	*Phoenix* Index at end of month *(Dec 1989=1.00)*	*Phoenix* portfolio turnover *(% of total)*
Jan 1993	Malaysia, Philipines, Greece, Korea	Malaysia 99.7; Philipines 0.3	3.714	99.7
Feb 1993	Malaysia, Greece, Korea	Malaysia 100	3.823	0.3
Mar 1993	Malaysia, Chile, Philipines, Greece	Malaysia 78.0; Chile 21.8; Philipines 0.2	3.841	22
Apr 1993	Malaysia, Chile, Philipines, Korea, India, Greece	Malaysia 100	4.387	22
May 1993	India, Korea, Philipines, Greece, Malaysia	India 89.8; Korea 10.1; Philipines 0.1	4.654	100
Jun 1993	Philipines, India, Greece	Philipines 99.7; India 0.3	4.566	99.6
Jul 1993	Philipines, India, Greece, Korea	Philipines 100	4.990	0.3
Aug 1993	Philipines, India, Taiwan Greece, Korea	Philipines 100	5.035	0
Sep 1993	Philipines, Taiwan, India, Greece	Philipines 100	5.515	0
Oct 1993	Philipines, Taiwan, India,Greece	Philipines 100	6.483	0
Nov 1993	Philipines, India, Taiwan, Greece	Philipines 100	6.793	0
Dec 1993	India, Greece	India 100	7.231	100
			1993 % chg: 88.5	***1993 avg: 37.0***
Jan 1994	India, Greece	India 100	8.572	0
Feb 1994	-- Stay out of emerging markets --	US T-bills	8.594	100
Mar 1994	South Africa, Greece	South Africa 100	8.364	100
Apr 1994	Malaysia, Greece	Malaysia 100	9.233	100
May 1994	Malaysia, Greece	Malaysia 100	8.871	0
Jun 1994	Malaysia	Malaysia 100	8.963	0
Jul 1994	Malaysia	Malaysia 100	9.251	0
Aug 1994	Malaysia	Malaysia 100	10.246	0
Sep 1994	Turkey, Malaysia	Turkey 100	10.145	100
Oct 1994	Turkey, Malaysia	Turkey 100	10.019	0
Nov 1994	Turkey, Malaysia	Turkey 100	11.530	0
Dec 1994	Malaysia, Indonesia	Malaysia 100	11.088	100
			1994 % chg: 53.3	***1994 avg: 41.7***
Jan 1995	Malaysia, Indonesia	Malaysia 100	9.847	0
Feb 1995	Malaysia, Mexico, Indonesia	Malaysia 100	11.230	0
Mar 1995	Mexico, Malaysia	Mexico 99.8; Malaysia 0.2	11.490	99.8
Apr 1995	Mexico, Indonesia, Malaysia,Thailand	Mexico 100	13.944	0.2
May 1995	Mexico, Malaysia,Thailand, Indonesia	Mexico 100	13.255	0
Jun 1995	Mexico, Thailand, Malaysia, Indonesia	Mexico 100	14.603	0
Jul 1995	Mexico, Thailand, Taiwan, Malaysia, India	Mexico 99.9; Thailand 0.1	16.243	0.1
Aug 1995	Mexico; Taiwan, Thailand, Malaysia	Mexico 82.8; Taiwan 15.4; Thailand 1.5; Malaysia 0.4	16.371	17.1
Sep 1995	Taiwan, Malaysia, Mexico,Thailand, Turkey	Taiwan 68.8; Malaysia 30.8; Mexico 0.2; Thailand 0.2	***ytd % chg: 47.6***	83.9
				ytd avg: 22.3

The EMA Phoenix



The overall record is rather impressive:

- From its starting date in December 31, 1989, the *Phoenix* has recorded a ***63.7% compounded rate of return***. This compares with ***12.3%*** for the IFC emerging markets investable index, yielding an ***average annual premium of 45.8%***.

- Over this period, the model ***never looses money on an annual basis***, and with the exception of two months (January-February 1992), ***always beats the IFC benchmark by a wide margin***. (The inferior results for January 1992 occurred when *Phoenix*'s annual return was 43.9%.)

- Despite the narrow emphasis on one to four markets at any one time, ***the risk of short-term losses is actually very small***: the *Phoenix* experiences only four monthly declines in excess of 4%, compared with nine for the IFC index. Also, the *Phoenix* index did not drop for more than two months in a row, whereas the IFC index experienced up to six months of straight monthly declines .

- Because of its rapid turnover, the *Phoenix* carries higher transaction costs than those generated by long-term investment strategies. However, ***compared with the model's returns, these transaction costs are in fact rather low***. The last column in the table on pages 14-15 suggests an average monthly turnover of only 37.5%, which should limit monthly transaction cost to a ceiling of 1.5% for retail investors and far lower for fund managers.

Strategy

The promise of *Phoenix*'s contrarian strategy is well illustrated by its allocations since early 1995. Emerging markets entered a period of gloom in the wake of the Mexico crisis and many began talking about "submerging markets". It is exactly this kind of negative, and largely irrational sentiment which makes the *Phoenix* work. Emerging markets will undoubtedly face serious hurdles in the future, but the ***prospects*** for such difficulties have not been materially altered by the Mexican crisis as such. Investors, however, have over-reacted, letting their fears far outweigh their greed. By February 1st, the *Phoenix* already identified Mexico as a potential buy, but since Malaysian "hype" was even more depressed, kept Mexico out of its allocation. By March 1st, however, Mexico accounted for practically 100% of the model allocation, and the investment paid handsomely -- some 44.6% over the next five months. In August, Mexico's share dropped to 83%, yielding to better potential in Taiwan, and in September this was finally reduced to nil. As of September 1st, the *Phoenix* allocation was split between Taiwan (69%) and Malaysia (31%).

The *Phoenix* model is currently in its experimental stage. Over the next few months, we plan to add it as an additional service to our subscribers.