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Developments in Global Portfolio Management

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Foreword

The Investing Worldwide seminars are AIMR’s foremost conference for senior managers and analysts who are responsible for managing, analyzing, and selecting securities for global portfolios. Investing Worldwide VIII: Developments in Global Portfolio Management, the most recent in the annual series, was held February 26–28, 1997, in Bermuda. The focus of the seminar was on the critical decisions today’s managers face as they carry out global portfolio management.

More and more managers are thinking globally and acting globally, but the opportunities and risks in global investing constantly shift. In addition to the usual risks and potential rewards, global investors today must make their decisions in the face of questions about the European Monetary Union, the avalanche of privatizations, an unprecedented entry into the arena of emerging markets from Eastern Europe, and worldwide demographic changes.

This proceedings contains the presentations given at the conference on general topics—techniques for global asset allocation, incorporating political analysis in the investment process, and selecting appropriate benchmarks. It also includes the workshop presentations that addressed issues of importance in analyzing specifically the developed markets, the emerging markets, or the pre-emerging markets.

We are grateful to Thomas L. Hansberger, CFA, of Hansberger Global Investors, who served as the moderator of the conference, and to all the authors of presentations in this proceedings: Paul A. Abberley, Lombard Odier International Portfolio Management Ltd.; Bruno Bertocci, Stein Roe & Farnham; Marc Faber, Marc Faber Limited; Robert Lloyd George, Lloyd George Management Limited; Steven A. Schoenfeld, Barclay’s Global Investors; John C. Stannard, CFA, Frank Russell Company; R. Charles Tschampion, CFA, General Motors Investment Management Corporation; D. Sykes Wilford, CDC Investment Management Corporation; and Marvin Zonis, University of Chicago and Marvin Zonis + Associates.

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Political Risk in the World Economies

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Because the state must provide the crucial economic, financial, legal, and political infrastructure for the operation of any market economy, political risk considerations need to be part of every investment decision. The model presented here to assess political risk uses 10 variables that have historically been highly predictive of political instability; the presentation reveals the Top 10 and Bottom 10 of mid-1997.

International investors appear to be ignoring considerations of political risk in their asset valuations. This strategy could be dangerous. States play an immense role in economic life, so the fates of governments are immensely significant to all international investors. This presentation reviews the role of political risk analysis in investment markets and discusses the key drivers of a political risk stability model that I developed two years ago. The political risk rankings produced by the model of the 10 most stable and 10 least stable of 65 countries and some notes on China and Russia follow.

Political Risk Analysis

Market prices suggest that political risk is not a particularly relevant factor in the minds of international investors. For example, the spreads for sovereign debt—not only of Italy and Spain versus France and Germany but also of the emerging markets—have all narrowed. Furthermore, the November/December 1996 issue of the Financial Analysts Journal contains an article in which the authors conclude, "Trading on the basis of the political-risk measure alone has no ability to produce abnormal returns."1

Political risk has apparently diminished over time. For example, the danger of nationalization has virtually disappeared. So, someone who considers political risk to be primarily the danger of nationalization will not want to spend money on insurance against nationalization or take the risk of nationalization into account in asset decisions. And in fact, the evidence from the equity and fixed-income markets is that the markets have discounted this risk.

Another sign that investors are downplaying political risk is foreign direct investment. The total global flow of foreign direct investment increased from US$50 billion in 1985 to US$300 billion in 1995. Combined with the massive flow of funds into international equity markets, as well as into sovereign bonds, foreign direct investment is moving immense amounts of capital around the world—into projects, mergers, acquisitions, and foreign operations.

Evidently, investors have rapidly forgotten the Mexican peso crisis of December 20, 1994.

Those in the international investment game should not forget. Despite the collapse of the Soviet Union, despite the absence of communism, and despite the disappearance of the risks of nationalization, political risk poses major dangers to investments. The reason is that the state, especially in emerging markets, plays a determinative role in the economy of countries.

The simplistic view of the relationship of the state to the economy is that the more the state gets out of the business of the economy, the greater the economy will flourish. The reality is, however, that a country cannot have a successfully functioning market without significant state intervention. As Economics 101 teaches, markets produce the greatest output economically because markets are about allocating and distributing goods by price, and if goods are allocated and distributed by price, they are allocated and distributed by the criteria of efficiency. The result is to increase output and minimize inputs, which increases profits and, therefore, increases the total growth of the economy. In order for that condition to pertain, however, the state must play certain critical roles: maintaining currency stability, controlling inflation, establishing the legal framework in which transactions can occur, preventing monopolies, regulating banks, and regulating securities markets. In short, the state must provide the crucial infrastructure—economic, financial, legal, and political—for the operation of any market economy.

In emerging markets, the state plays an even more significant role than that of providing infrastructure. For example, emerging markets—especially those in which the state previously controlled much of the economy—have far more regulations governing economic activity than do nonemerging markets. Emerging markets thus provide massive room for bureaucratic interpretation and, therefore, for massive corruption, which reduces rationality in the operation of the economy. States that are privatizing and are seeking to break up monopolies replace their ownership of firms with new regulations that govern the behavior of those firms. As a result, privatization leads to more regulations, more rules, and more government interference in the economy than existed before the privatization occurred. The same is true for trade. As free trade increases, governments increase the regulations that they impose on imports as a way of guiding the economy in the absence of the tariffs and quotas that were eliminated in the course of supporting free trade.

**Political Risk Model**

If states play an immense role in economic life, why is the concern for political risk virtually disappearing? One reason is that getting a good handle on political risk has seemed impossible. Various models have been constructed, but the results and the interpretations can be baffling. Therefore, I set out two years ago to develop a model to predict political instability. The model is backed by 35 years of theoretical investigations into political stability.

To develop the model, we began with 22 theoretical propositions about political stability, operationalized those propositions, and tested the model by using 30 historical instances of political instability—from the student unrest in France in 1968 to the Iranian revolution of 1979 to the Mexican peso crisis of 1994. Through a series of regression analyses, we identified 10 variables that seem highly predictive of political instability historically: per capita GDP, rental income, distribution of income, predictability, agriculture, trauma, democracy, competitiveness, quality of life, and human capital.
GDP per capita. The first factor, weighted slightly more heavily than any of the others, is per capita GDP. The proposition is that relatively rich people are less discontented than relatively poor people. Societies that produce rising GDP per capita over time and relatively high levels of GDP per capita over time are likely, everything else considered, to be more politically stable.

Rental income. The second most important factor in the market is rental income, income that countries enjoy but do not work for. Rental income encompasses oil revenues, exports of natural gas and gold, remittances from foreign workers, Suez Canal tolls, foreign aid derived from other countries, and so on. The search by the Western powers for colonies was driven by the desire to capture rental income; the areas with the most natural resources were always considered the most desirable colonies by the imperial states.

The proposition in this model is that few countries that enjoy high levels of rental income in proportion to GDP will ever be successful—in the same sense that it is hard for rich people to raise successful children because if their children do not have to work for a living, they will never develop a work ethic. For example, Saudi Arabia will never be a successful country because smart, young Saudis do not work for a living; they figure out a way to get in on the distribution of the rental income; the areas with the most natural resources were always considered the most desirable colonies by the imperial states.

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Distribution of income. Equality or inequality of income may be an important issue, but it is not highly relevant to questions of political stability. Few people compare themselves in one time period with how they were doing in another period. What is more relevant than income equality/inequality is whether or not the system is distributing economic benefits throughout society—even to the poorest people—because poor distribution of economic benefits leads to political instability.

Infant mortality is an important way of measuring income distribution because, in developing countries in particular, the children who die are not the children of the elite. Their mothers, no matter the country, receive proper nutrition, proper medical care, proper prenatal care, proper delivery methods, proper hospital care for the infant, and so on. Babies of poor people die. So, infant mortality is a proxy for the ability of a system to distribute its benefits throughout the system—or in a more cynical view, to buy off the lower classes.

Predictability. Investors want to commit capital to systems that are highly predictable. (The reason investors are nervous about China and Russia, for instance, is the lack of predictability in those markets.) I measure predictability by changes in wholesale prices, which tend to fluctuate less than consumer prices. The argument is that stability in the rate of inflation is more important than the level of inflation. Of course, a high rate of inflation is virtually impossible to maintain at a stable level over time.

Agriculture. In this century, no state can get rich from agriculture if the agricultural commodity is legal. If the agricultural product is illegal—cocaine, heroin, or marijuana—a state can get rich, as Colombia illustrates, but it is getting rich from rental income, not agricultural products. The reason no state can get rich from agriculture is that no high-value-added agriculture exists. The price of a bottle of wine in comparison with the price of grapes is probably the highest-value-added legal agricultural price, and that difference is trivial in comparison with the value-added price of virtually any manufactured
product. Agriculture as a high percentage of GDP is a sign of a country that is not going to do well.

■ Trauma. From a political point of view, traumas are wonderful. They eliminate resistance to change, focus people’s attention, and unleash energy. Nobody in Germany in 1946 wanted to go through that trauma again. No one was sitting around in Berlin saying, “Oh, basically everything is fine. If we just keep going, making some minor adjustments, Germany will be terrific.” States that passed through trauma some years ago are more likely to be successful today than not. The great economic powers that have grown great since World War II—Germany, Japan, Italy, Hong Kong, Taiwan, Singapore, and Korea—have all suffered massive traumas. Countries that have experienced recent trauma are still wandering around in a depressed haze (in Moscow today, people are too stunned to be doing anything yet), but in time, the state will move beyond the trauma to development. “Invest when there is blood in the streets” may be understood as “invest at a time of trauma.”

■ Democracy. Democracy is important because, in the absence of ideology, the only legitimator of power is democracy, popular choice. And the power of ideology is diminishing in most corners of the earth. Lack of legitimacy is another factor raising political risk in China; since Deng Xiaoping’s economic opening, neither political ideology nor democratic choice legitimates the rule of his successors.

■ Competitiveness. Competitiveness is an important variable: Is the economy prepared to participate in the global economy? Competitiveness in the model is measured by imports plus exports as a percentage of GDP.

■ Quality of life. Another factor helping predict political risk is whether the state is delivering to its people a life that they regard as a life of quality. The way to measure such quality best is the simple variable of life expectancy. Russia is the only industrial country in the world in which life expectancy has plummeted in the past 25 years; life expectancy went from close to 70 years for an adult Russian male in 1970 to 57 years for an adult Russian male in 1995. For comparison, note that in Japan, the average life expectancy for an adult male is 80.

■ Human capital. The crucial variable in the performance of states is no longer physical or material capital. It is human capital—and specifically, human capital mobilized in a market economy.

Country Rankings

The model that uses the factors just described generates political risk rankings for individual countries. To produce country rankings, we run those variables many times in different ways. This section describes the model’s most recent ranking of the 10 most stable and the 10 least stable countries and discusses several interesting scores.

Most Stable

Not surprisingly, Switzerland is #1, with a score of 8.23 on a scale from 1 to 10. The second most stable country in the world from the point of view of the political risk model is Japan. The rest are as follows: France #3, the Netherlands #4, the United States #5, Italy #6, Germany #7, Australia #8, Finland #9, and Spain #10. The specific rankings may be somewhat surprising—Italy’s placement as #6, for example—but most analysts would agree that these countries should be in the Top 10 in terms of stability.

Italy’s placement follows from the definition of stability. Consider, for example, two metaphors for stability. Consider, for example, two metaphors for stability. One metaphor involves balance: In New Hampshire, there is a well-known balancing rock, a huge boulder that appears about to roll off its narrow base, but it has sat on that base for a long time. A different metaphor for stability is an avalanche. An avalanche is an extraordinarily stable system—not in the sense
that it can be controlled but in the sense that its path is quite predictable. The internal components of the avalanche may not be predictable, but for considering its stability, we are less interested in the internal parts than in its overall direction and in when and where it is going to settle. Italy is stable in the sense of an avalanche’s stability rather than the stability of a balancing rock, which, after all, could be knocked off its base with the right pressure.

**Most Unstable**

The country that came out at the bottom of the political risk rankings with a score of 0.38 is Bulgaria—a country that we put in the model only in late summer 1995. Second from the bottom is Zimbabwe, third is Nigeria, fourth is Morocco, fifth is Algeria, Turkey (slightly less unstable than Algeria) is sixth, Pakistan is seventh, Brazil is eighth (which is an amazing output of the model), Iran is ninth, and finally, tenth up from the bottom is Ukraine.

**Russia and China**

Russia and China—two key countries in which investors are interested—were not in the Bottom 10 of unstable countries. These two countries scored 3.21 and 3.61, respectively, which is better than India but not quite as stable as Jordan, which came in at 3.62. Because of their interest to investment professionals, Russia and China’s rankings merit an explanation.

**Russia.** One of the most overrated countries in terms of foreign investment at the moment is Russia. Relatively low levels of capital are actually moving into Russia, but the interest is tremendous and has been growing because the Russian stock market has been going up rapidly. Since the election of Boris Yeltsin, the market has gone up 55–65 percent. Note, however, that this rise follows a period in which the market essentially lost all of its value, so the rise is from a very low base.

The problem with Russia is exactly the problem I began this presentation with: To have a robust market economy, you need a robust state. The problem in Russia is not too much government but rather not enough government. After the collapse of ideology and after the collapse of the Soviet dictatorial regime, no one in Russia is anxious to see another powerful state constructed. Consequently, the Russian government cannot collect taxes, impose a legal system, create a criminal investigation and prosecution system, or successfully pursue war. Russia has fought three wars in recent history against the Islamic people who live to its south. It has lost two of those wars (against Afghanistan and the Chechen people) and is about to lose the third (a war being fought by Islamic forces who oppose the government in Tajikistan). Such losses signify a weak state, and a weak state precludes a robust market economy. In Russia today, six wealthy businessmen control conglomerates that, in turn, control more than 50 percent of the Russian economy. In other words, monopoly or oligopoly power is dominating the Russian economy and preventing its emergence into robust economic growth. If Russia survives, it will survive on the basis of rental income. Russia will be able to export raw materials and use the wealth those rents produce to buy off its population, but it will not produce a viable market economy in the foreseeable future.

**China.** China is in a very different position from Russia. China is not a rich country, but its vibrant economy has been growing more rapidly than any other economy in the world. In the 1990s, the rapid growth of the Chinese economy in the 1980s has begun to pay benefits in the form of rising per capita income. Average per capita income in China has reached US$600, up from US$300 in 1980.

Despite this tremendous growth, I am cautious about the future of China. The reason for my concern, and the
reason China’s low ranking for political stability is appropriate, is because China has no governing ideology and no democracy. The existence of the dictatorial regime in China has no justification other than that it produces economic growth, and the reality is that the economic growth it is producing is not spread throughout the society. The overall unemployment rate in China is estimated by the government to be 11–12 percent, but the unemployment rate in the cities is estimated by outside observers to be more than 30 percent; that is, only two out of three people in the labor force are able to find work. Moreover, China has yet to go through the political turmoil that will follow from a state that, in the absence of ideology, has created massive unemployment after generating tremendous expectations. Some very unstable times may lie ahead.

Conclusion

Can investors do anything with these ideas? For managing risk, the point is not to look at the output of this or any other model and simply avoid countries below some arbitrary number on a political risk scale. The point is to use the insights to understand an investment’s true risk–reward ratio, which investors have not been doing. The flow of funds into equities, the flow of funds into fixed income, and the decrease in the spreads indicate that the time has come to restore considerations of risk in investing in emerging markets. A market crisis will restore those considerations, but waiting for a crisis is dangerous. When will it come, and how hard will it hit? Investors hope for a relatively painless lesson—one on the order of the peso crisis of 1994—but the lesson could be far more painful. Political risk considerations need to be part of every investment decision in emerging markets.
Asset allocation is a simple tool, but investors and managers generally do not apply it correctly. The recommendation here is to go back to basic theory: No one knows the future, so you must use forecasts, not history; for truly global allocations, forecast excess, not total, returns; make guesses and establish a sense of how good the guesses are and in which direction they tend to go; and let your optimizer do what it is supposed to do without constraints.

As asset allocation is responsible for somewhere between 50 percent (from someone who is belittling it) and 90 percent of portfolio earnings. If it is such an important determinant of returns, why does everyone want to know each other’s latest stock pick? No one comes up to you at a cocktail party and asks, “What is your asset allocation?” Either asset allocation is very difficult to understand, or it does not give us much value as it is currently being implemented. This presentation revisits the theory of asset allocation, focusing on some of the theoretical issues, and lays out certain approaches that will help portfolio managers and investors apply asset allocation correctly.

Theory
Asset allocation theory today has changed little from the theory developed 40 years ago, but now, for the first time, probably, since asset allocation theory was developed, investors and analysts can do asset allocation properly. What business school taught about asset allocation was largely wrong, which is why we use it so poorly and get so little value from it.

In the basic concepts of modern portfolio theory, the risk of a portfolio can be lower than the risks of any of its components because of diversification. But what does “diversify and get rid of risk” truly mean? Mathematically, investing in both assets A and B is less risky than investing in either one of them separately only if assets A and B are not or only slightly correlated. Simply put, reduction in risk depends on a sufficient number of weakly correlated assets in the portfolio.

Investment managers focus on asset allocation because they want the maximum return possible for taking on a given level of risk; that is, they always want to be on the efficient frontier, shown in Figure 1. Investors do not want to be below the efficient frontier; investors with portfolios below the curve are taking risk needlessly and getting no

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1Mr. Wilford is now a managing director at CDC Investment Management Corporation.
return for it. Investors can move along the efficient frontier, trading off the risk in the portfolio for the return that might result. Asset allocation supposedly helps find efficiency on this frontier. The problem is that the efficient frontier is a moving target.

A different, and simpler, way to think about modern portfolio theory is in terms of diversifiable risk. For any portfolio, risk can be separated into diversifiable and nondiversifiable risk, as shown in Figure 2. If managers add enough assets to their portfolios, they can get rid of diversifiable risk, which is also known as bad risk. They cannot get rid of nondiversifiable risk, also known as good risk. Why should some risk be bad and some be good? Good risk is the risk managers get paid to take. Bad risk is the kind of risk the market will not pay a manager to take. A manager can get lucky, of course, and have bad risk turn out to be good risk because the manager is on the right side of a distribution, but good risk is the kind of risk the market will pay a manager to take ex ante.

Figure 2 also shows locally diversifiable and globally diversifiable risk. Theoretically, even in a local market, managers can get rid of a lot of risk, but if the market is taken as the whole world, they can get rid of more risk.

How many portfolios, however, are globally diversified? For example, in Spain, Spanish investors say, “Why should I invest outside Spain? I do my optimizations, and they tell me to buy Spanish bonds.” In Germany, the Germans say, “Why should I invest outside Germany? I should buy German bank deposits.” And they do; about 80 percent of their investments are in fixed-income securities or deposits. In the United States, people say, “I should buy the S&P 500 Index because it always
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In some markets, investors may own only the fixed-income market; in others, they might own bank deposits; in the more adventurous, such as the United States, they hold some domestic equity. The Spanish have some logic behind their position; over the past 30 years, Spain had the highest real rate of return on investments, and from a risk-adjusted standpoint, the return was probably coming from Spain’s fixed-income market. The German and U.S. positions are not so logical.

The reality is that people have a local focus. Most people tend to ignore diversification in general, but even if they do diversify, it is local. Part of the reason is probably the difficulty of accessing foreign markets in the past and the resulting exorbitant transaction costs for international investing. Twenty years ago, a U.S. investor could hardly consider a stock in, say, Italy; the transaction costs associated with simply getting one’s hands on such a stock were prohibitive. Today, however, global markets are as accessible as local markets—at least through indexing. So, the question remains: If global markets are as accessible as local markets, why so little global diversification? One or two aspects of the concepts of global diversification and asset allocation may help explain why people tend to stay home rather than invest globally.

**Use Excess Return Space**

Global efficiency should be in excess return space, not total return space. Theory discusses risk relative to the no-risk alternative. For years, the risk-free rate meant the credit-risk-free rate, but that is not necessarily correct. The risk-free rate is the known rate for the investor’s horizon—the one-year rate for an investor with a one-year horizon. This definition makes sense if one thinks about risk as what an investor has to pay to go look for return. Why should investors pay money for something from which they will not get excess return? So, the efficient frontier should be developed on a graph of risk and return that pictures returns in excess of the risk-free rate, not total returns, which is misleading.

Several years ago, I gave a presentation on this concept to the portfolio managers at Bankers Trust, and they said it does not matter whether one is talking about excess returns above the risk-free rate or total returns: “Anybody can simply make the adjustment.” So, I told them to go build an ECU (European currency unit) portfolio, a German mark portfolio, a Japanese yen portfolio, and a U.S. dollar portfolio, optimize them, and bring them back. When the exercise was done—the same optimizations, same risk targets, and same volatility assumptions—the result was four different portfolios, each of which was “globally” efficient. How can four different portfolios be the efficient portfolio? It is impossible. But investment managers produce them because of the currency problem.

Global efficiency should be currency independent, not currency dependent. And as soon as analysts move into excess-return space, returns are 99 percent currency independent. In excess-return space, “globally efficient” is also no longer home-country dependent. So, an efficient portfolio in U.S. dollar terms looks the same as an efficient portfolio in Spanish peseta terms, with the exception of the currency hedges to bring the portfolio back to the excess return above the risk-free return, which is different for the Spanish, the German, and the U.S. investor.

Stressing the use of excess returns may seem pedantic and unimportant, but it is critical for performing asset allocation correctly. Otherwise, not only are the portfolios wrong, but future performance has no comparison with the past.

**The Past and the Future**

In local or global portfolios, and even in excess-return space, portfolios carry certain risks and returns that change...
over time, as the next series of figures will show. **Figure 3** is a graph of risk and return in excess-return space for various asset classes and markets for the five-year period beginning in January 1975. It reveals some interesting information about where investors obtained excess returns for the risk they were taking in this period. The figure compares the MSCI (Morgan Stanley Capital International) country indexes, the MSCI World Index, U.S. stocks (the S&P 500), and U.S. 10-year government bonds; risk, or annualized volatility, was measured as standard deviation of return. The riskiest market, but it sure provided return, was the United Kingdom. Japan was a winner in providing reasonable risk for high return. The MSCI World and the S&P 500 indexes were low risk and low return. For this five-year period, the choice assets were Japan and maybe Germany. France and the United Kingdom were pretty good. The worst allocation was U.S. government bonds; they were low risk but had negative returns.

**Figure 4** shows the next five-year period, 1980 through 1984. Suppose that, on the basis of the 1975–79 period, an investor had invested in the United Kingdom. How would that investment have done? The equity was still high risk, but the return for the period was low, less than 2 percent. Germany at least gave a return for the risk taken during this period. The S&P 500 was lower risk with some return. U.S. government bonds simply became more risky for negative returns. Japan still looks like the place to invest: Five years before, Japan was a great place to invest, and it was a great place to invest this five-year period. So, to get ready for the next five years, in typical recommendation terms, “based on the last five years of data, Japan is recommended.”

Look at the next five years. In **Figure 5**, Japan shows up as still the one place an investor can consistently go. France is now performing and, in hindsight, should have been bought. And all of a sudden, U.S. government bonds and the S&P 500 have started to look good.

Finally, **Figure 6** shows the final five-year grouping, 1990 through September 1995. The place to be was the S&P 500 and U.S. government bonds. The one asset that was always up in the past periods, Japan, gave up everything in

**Figure 3. Risk versus Reward, January 1975–December 1979**
this period that it had returned in the previous 15 years.

Today, U.S. investors ask, “Why should I invest anywhere but in the S&P 500 and U.S. government bonds? Look what a great return they have provided.” Even if this analysis were extended to 1997, low risk and high return dominate in the United States. Of course, an investor could have said the same thing for Japan in January 1990. So, one of the lessons from this exercise is to go back to basics: The past does not predict the future. If investors simply look at the past as an indicator of the future—whether using five years, three years, or moving averages—they will choose markets just before they go down. A good rule could be: All looks bright just before the hurricane hits, at least in markets.

Figure 4. Risk versus Reward, January 1980–December 1984

Figure 5. Risk versus Reward, January 1985–December 1989
An Approach to Theoretical Correctness

The theorists said that, in a perfect world, investors should diversify everywhere, all the time, instantaneously, into everything. The theory assumes no transaction costs and no frictions. Of course, frictions and transaction costs do exist in the world, and investors cannot ignore them. What does it mean, then, to diversify a portfolio everywhere, all the time—in a friction-free world or in a world with friction?

The meaning starts with a basic principle: Investors have portfolios because they do not know the future. No one is prescient. If investors knew the future, the perfect portfolio would be one bet, because they would know the outcome.

The power of portfolio theory is that it allows investors and managers to deal with the world of uncertainty, risk. Because the concept of looking at the past, which we know perfectly, to build a portfolio is dead wrong, investors must begin by setting expectations about the future in building a portfolio. Theory demands that investors make a guess about the future. When investors or managers make such guesses in building their portfolios, what is critical is not the guesses but how wrong they can be—a little wrong or a lot wrong—which depends on the distribution of expected returns—that is, the volatility of what will happen next. Figure 7 shows the distribution patterns for being a little wrong and a lot wrong. How wrong investors will be has everything to do with how good they are at forecasting, not how volatile the actual market is. An excellent forecaster will probably...
be a little wrong; a poor forecaster will be a lot wrong. In portfolio theory, however, that difference does not matter much because it is taken into account in the correlation matrix of risks.

When we in the industry use the last five years to get the volatility for the next five years, we are forgetting what the theorists were talking about 40 or 50 years ago. We do it because measuring how wrong we could be is bad for cocktail party discussions and because it is difficult to do. So, we make forecasts about future expected returns, and then we turn around and estimate how wrong we could be (future variance) based on something in the past. No wonder the resulting portfolios appear to be irrational!

Once we have our guess about the future and have some idea of how wrong we could be (the standard deviation of our guesses), we are also interested in whether we guess everything wrong in the same direction. In portfolio theory, it does not matter that one is wrong if one is consistently wrong; portfolio theory allows us to adjust for being wrong in a consistent manner. Knowing that any guess will be wrong, what the investor needs to do to create an optimal portfolio is have an idea of how wrong the guesses will be and how closely associated those guesses will be in “wrongness” space.

Nothing in the theory says that actual historical correlations must be used or that actual historical standard deviations must be used. If we use forecasts of the future from sample data and then plug in perfect guesses about future correlation and volatility, the portfolios are worse than if we had done it theoretically correctly. So, knowing what may happen in the future regarding correlations and volatilities of underlying actual prices will not build better portfolios. The idea that we do not know what prices will be but do know that volatility in the future will look like volatility in the past is wrong.

The correlation data needed for portfolio allocation should reflect the errors in our forecasts of the future. For example, when I get the German mark wrong, I tend to get the French franc wrong the same way. My models are so interlinked that they tend to be wrong the same way. That link is what matters, not whether the forecasts are actually right or wrong.

Consider the following forecasting approaches. The DOLS (dynamic ordinary least squares regression) line in Figure 8 is the output of a sophisticated quantitative forecasting system for global asset allocation. It is a Bayesian error-learning system and is based on variable autoregressive principles. The model is in excess-return space, so anything above the dotted line is great and anything below that line is losing money relative to cash. The model is theoretically correct in excess-return space, but it uses a historical variance–covariance matrix for the optimization, which is common practice in the industry. The returns shown are the kinds that yield a Sharpe ratio over a five-year period of about 1.0. The results are real; I did not cheat with statistics. Most managers would be pleased with the model output.

The DSUR line in Figure 8 is based on an estimation procedure called “dynamic seemingly unrelated regressions.” It reflects the performance of a portfolio created with exactly the same input data as DOLS but, instead of some historical measure of volatility and correlation, the correctly measured errors of the forecasts. The DSUR cumulative return is five times as large as the DOLS cumulative return, yet the forecasts are basically the same. The only difference between the two lines is that the DSUR one is theoretically correct.

Knowing the future volatility and correlation does not help significantly to improve returns because the theory is based on the assumption that one does not know the future of anything. We simply have guesses about the future; we are either good guessers or bad guessers, and there is a relationship between the guesses we make. When
people talk about correlation, what they should say, theoretically, is the correlation of their guesses and the errors in their guesses.

Asset allocation is a simple tool, but investors and managers ended up doing it wrong because obtaining measures of volatility and correlation that were not based on history was difficult. The technology has changed, however, and today, analysts can create methodologies so that when they make guesses about future returns, they can talk about the consistency of the direction of their errors, consistency in the volatility associated with those errors. So, technology allows correct application of the theory.

When the new technology, such as off-the-shelf optimizations, is used incorrectly—not done in excess-return space, expected returns are used but not expected variances and correlations—it reinforces investors’ biases against global investment as well as global asset allocation. The resulting portfolios do not look appropriate, and managers attempt to sell the product by putting constraints on the optimization. “Constrained optimization” sounds good, but it is the worst kind of error. In the financial markets, investors and managers want robust solutions. When we constrain our optimizations, we are guaranteeing that we do not have robust solutions. When we are wrong, we are going to make big mistakes.

**Conclusion**

To do asset allocation correctly, start with a premise that no one knows the future. Forecast excess returns, make guesses, have a sense of how good a guesser you are and in what direction those guesses line up, and then do not constrain the system. Let it do its duty.

Consistency—in excess returns, expected returns, volatility, and correlations—is the key. You do not have to have the fanciest model in the world. You do not have to have the most sophisticated system to use portfolio theory effectively. Go back to the basics.

In global asset allocation, as soon as you operate in excess-return space, the model will come up with portfolios that have lots of global assets. In a global optimization, portfolios look the same to European and U.S. investors, who can then simply use the cheapest contract in the world, the currency forward contract, to translate the returns to home-country currency. Going back to the basics of modern portfolio theory allows you to not know the future but still provide your clients with good returns.
Global Equity Analysis: Country, Industry, or Company Selection?
Bruno Bertocci
Principal
Stein Roe & Farnham

Country, industry, and company selection are inseparable in the global arena. One useful analytical approach is to separate the local industries from the global industries, value local markets after the companies that belong to global industry groups have been excluded, and compare companies only within their appropriate groups—local companies with local peers, global companies with global competitors.

In the United States, analysts often select individual securities within the context of their industry. On a global basis, country, industry, and company selection decisions are completely intertwined. For two key reasons, country selection outside of the United States often leads to unintended industry concentrations. First, most non-U.S. equity markets are concentrated in a few industries. Second, global industries—industries that cross borders so the location of the company is not important—exist, and they are distributed very unevenly among the world’s markets. This presentation discusses these issues and outlines an approach to global investing that recognizes these characteristics.

Industry Concentration

The U.S. equity market is the most diversified market in the world. The market represents many industries and, within each industry, many competitors. The largest market capitalization in the U.S. market is General Electric (GE), and it is barely more than 2 percent of the U.S. equity market. A key characteristic of the U.S. market is that investors can usually identify several companies in the same industry and compare them with each other. As a result, most U.S. equity investors and analysts are comfortable with the idea that when one is making a choice among several stocks, one examines companies in the same industry and analyzes the differences between them in terms of stock valuations and other characteristics.

Non-U.S. markets, in contrast, are often very concentrated. Most non-U.S. markets contain one or only a few stocks that take up a significantly higher proportion of market capitalization than GE does in the United States. A good example comes from the Netherlands, where KLM Royal Dutch Airlines makes up a huge proportion of the equity market. In Asia, Telekom Malaysia dominates the Malaysian market. Fiat makes up a lot of Italy’s equity market.

Not only do a few large companies tend to dominate in non-U.S. markets, but often an industry has only one competitor, so identifying stocks in the same industry to compare with each other is much more difficult than in the U.S. market. No other stock in the Netherlands can be compared with...
Royal Dutch; Telekom Malaysia has no competitors; no other significant automobile companies exist in Italy that can be compared with Fiat.

One of the factors that tends to increase company or industry concentration in non-U.S. equity markets today is privatization. About 20 percent of the U.K. equity market, for instance, consists of companies that former U.K. Prime Minister Margaret Thatcher privatized; these companies did not exist 10 years ago. Most developing markets have utilities, banks, and other companies that have been recently privatized. These institutions are often enormous companies, and their entry into the private equity markets changes the structure and dynamics of the markets.

Even if a market is not dominated by one company, non-U.S. markets tend to be dominated by one or two industries. Figure 1 shows this kind of dominance for the Finnish, Spanish, and Hong Kong equity markets. In the Finnish market, forest products make up more than 15 percent and Nokia, a telecommunications and electronics company, makes up more than 25 percent. An investor who likes Finland is basically making a statement about liking the forest products industry and liking Nokia. In Hong Kong, a quarter of the market is bank stocks and about another quarter is real estate, so those sectors drive that market. In Spain, utilities and banks are about half of the market. Every non-U.S. market has a few extremely important industries and companies.

The industries in which competition takes place across borders are extremely unevenly distributed across countries. Figure 2 contains four examples. Note that data processing is about 5 percent of the U.S. market but is basically nonexistent in Singapore, is less than 2 percent in Italy, and so on. Global food and household products companies—Nestlé or Procter & Gamble, for example—have no market-cap weight in Singapore and very large weight in the Netherlands.

Figure 1. Industry and Company Dominance in Non-U.S. Markets

![Diagram showing industry and company dominance in non-U.S. markets](image)

Source: Based on data from FactSet (January 1997).
Investing Worldwide VIII: Developments in Global Portfolio Management

(through Unilever). Japan has no energy resources and thus no energy resources industry. In the United States, on the other hand, about 9 percent of the market consists of energy companies. These companies were founded in the United States, but they compete across the globe and explore for resources in every possible corner of the world. Telecommunications is another example; Singapore Telecom occupies almost 40 percent of the Singapore equity market, but the industry is a smaller portion (in some cases, a much smaller portion) of the other markets.

History, natural advantages, geography, climate, and many other factors create concentrations in some industries and the absence of certain other industries in national equity markets. These factors drive the development of companies and sectors in the markets. Because most global markets are concentrated in a few industries, a country

Figure 2. Distribution of Four Global Industries

Source: Based on data from MSCI via FactSet (January 1997).
selection will result in an industry concentration whether the investor wants it or not. The investor could explicitly omit an industry in a market, of course, but then the investor is making a specific bet against that industry. Either way, because of various industries’ dominance in certain markets, going into a non-U.S. market is a bet for or against the dominant industry. To avoid making industry decisions while selecting countries and to avoid making country decisions while selecting industries are quite difficult.

**A Global Approach**

The literature does not provide conclusive evidence about the relative importance of country and industry effects on stock returns. First, the data are extremely difficult to decompose. Analysts have a hard time deciphering whether they are analyzing country returns or industry returns. Second, most of the data contain large standard deviations. Multicollinearity is also a big problem in statistical analysis of returns because the factors that are being measured are closely related and cannot be separated using statistical analysis.

One solution is to view industries as either global—those that compete in global markets—or local—those that operate within their local markets. Global industries are not tied to the fortunes of any one home country but to the global economy and to industry dynamics. For instance, in the steel industry, steel is priced in dollars and competition takes place across borders. To the most efficient, lowest-cost producer of steel, the location of the company’s factory does not matter; the company will export steel out of its country no matter what the state of the country’s economy. Many other industries—gold, semiconductors, petroleum, and so on—operate similarly in global sectors. Companies that compete in global industries are borderless. Their operating characteristics are independent of local economic conditions. Companies that operate in local markets are closely tied to their domestic markets. They cannot escape the economic effects of the local economy on business conditions.

The products of global industry groups are often commodities, and demand for the products is global. Pharmaceutical companies are a classic example of a global industry group. Several pharmaceutical companies are located in Switzerland, but little of their product is sold there. They sell all over the world. Technology companies are another example; Microsoft first sold Windows 95 in New Zealand. Natural resources are clearly a commodity: The price of oil is the same in London as it is in New York. The automotive industry is a classic global industry; automobile factories are all over the world. Honda is the third largest auto manufacturer in the United States and competes head-on with General Motors Corporation and Ford Motor Company.

Local industries are typically locally regulated. The products are those that cannot be shipped easily, and the demand is local. Utilities are perhaps the most classic local business; all utility regulation is local, and the product cannot go far. Banking is a classic local business. Most of a bank’s deposit base is local, the regulations are local, and the interest rate environment in which the bank operates is local. Construction is typically a local business.

The distinction between global and local industries can be used to manage portfolios. First, divide the universe into local and global companies using logical criteria—the competitive nature of the industry and export dependence. This division of the universe permits logical comparisons among and within equity markets. **Figure 3** illustrates the approach using South Korea and Japan. An important business in Korea is gas distribution. The government encourages businesses and individuals to switch to the use of natural gas in order
to curtail pollution. In making a decision about whether to own, for example, Seoul City Gas or Samchully, two of the largest gas distribution companies in South Korea, the framework is South Korea. An investor can compare these two companies directly on the basis of valuations or any other factors. They compete head-to-head with each other, and there is no need to compare those companies with utilities outside Korea.

On the other hand, if an investor is considering Samsung Electronics, one of the world’s largest manufacturers of semiconductors, the framework must be outside Korea. For comparisons, investors must go to other companies in that same industry—direct competitors of Samsung, such as NEC Corporation, Texas Instruments, or Intel—irrespective of where they are located.

To find the true valuation of a local market, the next step in this approach is to recalculate each local market’s key valuation ratios excluding the equities of the companies in global industry sectors. For example, to find the local valuation of the Dutch market, one would strip out Unilever, Royal Dutch, and Philips Electronics N.V., then calculate the valuation of the market.

Next, in making a choice between stocks, compare local companies with the local market and compare global stocks with global industry competitors. Comparing local companies can be as much an art as a science, because every local market has some industry or sector that is unique to that market. For example, no such thing as a plantation sector exists outside the Malaysian equity market. Such sectors give a unique flavor to each market.

Comparing global stocks within global sectors is the final step. As discussed, it is a natural, logical way of picking among global stocks. Look at the industry around the world. Do not worry about where the companies are located; look for the company that is most competitive and has the best valuation relative to its worldwide competitors.

**Conclusion**

Investors should base global country and industry decisions on the true nature of the respective markets: Separate the local industries from the global industries; carry out comparative analyses only within the appropriate group (local versus local); and value local markets excluding the companies that belong to global industry groups. We believe that this approach leads to relevant and useful insights about companies’ relative valuations.
Benchmarks for Global Portfolios

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The importance of portfolio benchmarks as tools for evaluating the success of an investment strategy should not be overlooked. In particular, benchmarks play the vital role of defining a portfolio’s neutral or low-risk position. A good benchmark is, first of all, suitable for the strategy being measured; it is also clear, simple, understandable, and unambiguous. In addition to a discussion of indexes as benchmarks, this presentation describes the factors to be considered in benchmarks for pension funds with multiple managers, hedged benchmarks, and style benchmarks.

The importance of a portfolio benchmark in the measurement of an investment program is often underrated. In defining a new mandate for a manager, the choice of benchmark is often left until last, at which point both parties are perhaps satisfied to settle for some convenient solution—for example, using a benchmark that everybody else uses. A choice may be made irrespective of the nature of the portfolio mandate or the special risk factors or constraints involved. Such automatic benchmark choices can be a mistake. The benchmark is extremely important—not only to the client and the manager separately but also to their mutual understanding of the contract between them and the future success of their relationship. The portfolio benchmark defines the neutral position of the investment strategy (in terms of market risk), and because most benchmarks can be reproduced in a passive portfolio, the benchmark forms the passive low-cost alternative to active management. Therefore, benchmarks need to be chosen with care. Moreover, anyone using a benchmark (the focus in this presentation is on global benchmarks in particular) needs to understand the individual characteristics of the various index options and how their construction will affect their effectiveness as benchmarks. This presentation contains a review of what makes effective benchmarks in theory and a discussion of three benchmarks in practice.

Benchmarks in Theory

For their investment benchmarks, funds and managers should avoid using a series of targets, each of which might be quite valid on its own but which, like random signposts, all point in different directions. This type of benchmark structure neither defines an effective strategy nor helps in decision making. Rather, an effective benchmark might be defined as “an independent hurdle rate, forming an objective test of the effective implementation of an investment strategy.” In other words, the benchmark sets a hurdle, and meeting the benchmark performance means achieving that hurdle and carrying out a successful strategy.
Note that what is being measured by the benchmark is "an investment strategy." So, the fund or manager must have a strategy that has been logically thought through and must clearly understand what the strategy is. A good benchmark needs to be relevant to the strategy and to the markets in which it is applied.

The next need is an "objective test" of whether the strategy has been successful. The hurdle concept is useful here. In a hurdle race, a runner can still win the race if he or she knocks down a couple of hurdles. But the chance of winning is small if the runner knocks them all down. Investment managers hope to jump over all the hurdles, realize they will sometimes miss, but know they cannot always miss and still win the race.

To be a good objective measure, a benchmark must be clear, simple, clearly understood by all who are using it, and unambiguous. That last point is particularly important: If two people can arrive at different interpretations of the same benchmark, problems are bound to follow.

**Benchmark Structures**

The terms "index" and "benchmark" are often used interchangeably, but they are not the same, and an understanding of the difference is important. An index is a mechanism for showing how a market has changed based on, say, the prices of the underlying securities. A benchmark is a tool for evaluating the success of a process. Indexes are often used as benchmarks, but benchmarks may not always make valid indexes. Benchmarks are often derived from a standard market index. Sometimes, managers add a value-added target rate above the index return—that is, a target of the index plus some percentage. For example, a pension fund might view an investment manager as an aggressive, concentrated, high-risk manager, so it may require the manager to beat the index by 1.5 percent. Selecting a value-added target is an important subjective decision, and both client and manager should think realistically about the practicality of such a hurdle rate. For instance, 1.5 percent does not sound like much, but in fact, it is not an easy goal for even a quite concentrated portfolio to meet. A 2 percent target is demanding, and few portfolios will consistently outperform a benchmark by 3 percent. Also, when setting the percentage, client and manager need to think about the amount of risk in the portfolio and how the portfolio fits into the overall strategy.

Another facet of benchmark construction is the weighting of individual components of the index (stocks, industry groups, etc.). An investment benchmark might be a market-weighted composite index (i.e., weighted based on the market capitalization of each stock). Alternatively, it might be weighted by some other factor such as GDP (say, by country) or use some simple equal-weighting formula. In the U.K. market, several pension funds judge themselves against an average fund proxy, and indexes have been built on the basis of weightings of the average fund in the market. Such indexes can indicate how well a manager is doing relative to the aggregate of all the other funds in the market but do not really take into account special factors, such as the pension fund's liability structure, unique constraints, or objectives. This limitation is becoming more recognized in the United Kingdom, and as a result, the industry is moving toward a more U.S.-like model, in which individual pension fund benchmarks are based on objectives, liabilities, and so forth.

Finally, a benchmark might be simply some reasonable representation of the peer-group return. Comparing against the peer group gives an objective test of how well a fund is doing in relation to other international bond or equity portfolios.

Sometimes, a fund has two benchmarks. In this case, ensuring that the two benchmarks are not conflicting is important. For example, in one situation I came across, the pension fund gave its
Managers the joint goals of beating the Morgan Stanley Capital International World Index when the index is going up and beating cash when the MSCI is going down. In principle, that objective sounds reasonable, but in practice, it led to compromise and did not motivate the intended behavior. The manager carried a relatively high cash weight, presumably to cushion performance in the event that the market did go down. As a result, the fund tended to underperform the index for long periods and the strategy was, by definition, unsuccessful. For this particular pension fund, leaving the cash objective out would have made more sense. The inherent volatility of international equities is better balanced by reasonable diversification elsewhere in the portfolio (i.e., as part of the strategic asset allocation decision) than by some unrealistic notion that a manager can, with perfect foresight, suddenly liquidate an equity portfolio immediately ahead of a market fall.

In some cases, a dual benchmark makes sense. For example, adding a peer-group benchmark to an “index-plus” hurdle would indicate that beating the competition is the secondary objective. That approach is sensible; it is what a manager is trying to do anyway. So, primary and secondary benchmarks are workable as long as they are reasonably homogeneous in terms of the sample and are leading the strategy broadly in the same direction.

Benchmark structures need to weigh simplicity against perfection. The market may well be very diverse, and the manager may want to include every single stock in the benchmark, but in practical terms, such a goal may not be achievable. In most cases, managers and clients can settle for reasonable exposure to a market and an index that has sensible construction rules (rules that deal with new issues, income, and so on). If no index exists, creating one may be worthwhile, but that situation will not often arise. If multiple indexes are available, the manager needs to sit back, judge the strengths and weaknesses of each, and see how they fit the portfolio’s general objectives.

Materiality is important. For example, even if a client fund has a spread of liabilities across the world, creating an index that has 1 percent exposure here and 2 percent exposure there is impractical. At the end of the day, those small percentages within the overall benchmark are irrelevant in terms of the total return, but they will significantly complicate the benchmark calculation. Furthermore, they are difficult for a fund manager to match on any kind of practical basis. Less than a 5 percent exposure is generally not worth including in a fixed-weight benchmark.

The portfolio benchmark cannot reflect every minute component of a manager’s strategy. Here again, materiality (the law of large numbers) comes into play. A manager with a multifaceted strategy needs to pick the key components and reflect those in the benchmark. Of course, the aim is to be as accurate as possible, but a perfect benchmark is of little benefit if it is impossible to interpret and use.

In choosing a benchmark, managers and clients need to make sure it fills their basic needs. Instead of simply following the herd and using a benchmark because everybody else does, managers need to review and question the purpose of the benchmark. The aims are to not compromise the strategic objectives and not add the benchmark as an afterthought.

**Index Characteristics**

Even though indexes and benchmarks are not precisely the same, an index often forms the vital ingredient in a benchmark. When choosing an index for a benchmark, therefore, managers and clients want the index to be as follows:

- **Practical.** An index needs to be practical, in that it provides a basis that adequately reflects the portfolio mandate and provides a manager with something the manager is capable of
beating through good investment management.

- **Investable.** A manager must be able to buy the securities that make up the index. The question of investability is particularly important in the emerging markets, but surprisingly, many developed markets also have fairly low proportions of investable securities. So, investability is a factor in all indexes.

- **Representative.** An index should be as representative as possible of the underlying market. Factors such as market capitalization and industry group coverage are particularly important.

- **Complete.** In some markets, including every security is simply not possible, but the more complete the index, the more useful it is.

- **Widely recognized.** Sometimes, broad recognition of an index is better than perfection in the index. A perfect index that has just been developed may be attractive, but if nobody else is using it, gaining acceptance of the index, as well as gathering the underlying information, may be difficult. Following the herd is all right as long as the herd is going in the right direction. But managers and clients must always be cautious of following the herd. Be prepared to stop and sniff the wind now and again to make sure you and the herd are still going in the right direction.

**Index Construction**

Some of the issues to keep in mind when considering indexes are weighting, frequency of reconstitution, how income and new issues are handled, and ease of replication.

- **Weighting.** Is the index capitalization weighted or equal weighted? To say that a capitalization-weighted index is preferable may seem obvious today; portfolios perform on a cap-weighted basis, so a cap-weighted index is the most objective test of how well a portfolio has done. Many examples still exist, however, of indexes that are not weighted according to capitalization. One such index is the Dow Jones Industrial Average, and it is used extensively throughout the world as an indicator of market performance.

- **Reconstitution.** In theory, an index would be reconstituted every month or even every week, but in practical terms, such frequency is impractical. If reconstructions are too frequent, the index itself will be constantly changing, and stocks may move into the index and then move back out again. Such movement causes severe practical problems for both passive managers trying to track the index and active managers using the benchmark as a performance proxy. So, frequency of reconstitution is a question of balance. Most indexes are rebalanced about once a year.

- **Income.** This issue is relatively minor compared with weighting and reconstitution, but how income is handled is still important. If income is substantial—as it is for a bond index—and it is reinvested quarterly, the method for recognizing income and including it in the total return can have an impact on the effectiveness of the index as a measurement tool.

- **New issues.** In the normal course of events, new stock or debt will be issued and must be incorporated in the relevant index. The index’s rules for treating new issues are important. Once again, the best solution is a balance between accurately reflecting changes in the underlying market, on the one hand, and creating significant turnover and administrative hassle, on the other.

- **Ease of replication.** This factor is becoming more and more important as indexing increases in the emerging markets. Ease of replication is vital to benchmarks for indexing.

An examination of European equity indexes highlights some of the important aspects to be considered when choosing indexes for benchmarks. Although this study focuses on Europe, a similar review would apply to any market and any strategy. **Table 1** provides some information on the European subindexes.
of MSCI, the Financial Times/Standard & Poor’s Actuaries World Index (FT/S&P-AWI), and the Salomon Brothers Broad Market Index (BMI). The table demonstrates that indexes can be more different than one might expect. Note that the BMI Europe is much bigger than the MSCI Europe in terms of the number of stocks in the index. The relative sizes of these two indexes comes as a surprise to most people. Of course, many of those 1,800 securities in the BMI Europe are tiny (in terms of market exposure, 1,000 of them may make up less than 5 percent of the index), but they do have some impact. The FT/S&P-AWI Europe is roughly in between the other two.

Given the differences among indexes, how does a fund choose the appropriate index for a benchmark? It depends on the fund’s strategy. For example, if the index is to be used to benchmark a global index fund, the fund will want the index to have as broad a coverage as possible. If the fund is using a sampling methodology based on an index, then that sampling methodology will itself cause some error relative to what the markets are doing. In that case, the most appropriate index for the fund might be the BMI. If the fund simply wants some exposure to the global markets in its broader asset allocation, then the MSCI Europe is probably fine.

The choice of an index may also relate to what other managers in the region are using. The MSCI Europe has a longer history than the other two indexes and is widely used in the United States, whereas the FT/S&P-AWI is the more popular index in Europe and some other parts of the world. Many index choices are driven by history. The BMI, which is a very “pure” index in terms of coverage and investability, is not used nearly as widely as the others.

Available float, the amount of stock “available” to investors, can affect even markets that analysts do not perceive as having an issue of cross-ownership (one company holding another’s stock), and the amount of float can have a major impact on the country distribution from one index to another. Figure 1 shows available float for Europe and the major countries included in European indexes. Most stocks are freely available in the United Kingdom; some government holding and cross-ownership exists, but not much. On the other hand, the free float of less than 70 percent in Germany and in France is a surprise to most people. The reasons are somewhat different in the two countries. In Germany, the reason is mainly cross-ownership. Deutsche Telecom, for example, has only about 26 percent free float, and it is one of the largest stocks in the market. In France, the lower available float is more a result of government holdings. So, indexes that adjust for cross-holdings, such as the BMI, tend to have more capitalization exposure in the United Kingdom than in Germany or France, as the distribution of countries presented in Figure 2 shows. Therefore, a fund that wants to use a regional or a global index as a benchmark needs to know how

Table 1. Comparison of Indexes

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<th>MSCI Europe</th>
<th>FT/S&amp;P-AWI Europe</th>
<th>BMI Europe</th>
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<tr>
<td>Number of stocks</td>
<td>574</td>
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</tbody>
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such issues as cross-holdings are handled in order to judge the suitability of the index for a particular need.

**Benchmarks in Practice**

As this discussion about applying benchmarks unfolds, keep in mind the points made so far: First, indexes are not, by themselves, benchmarks; they are the building blocks of benchmarks. Second, the benchmark is a hurdle rate, something the fund or manager expects and hopes to achieve for the long term even though it will not be achieved from time to time. Third, the benchmark must be practical, unambiguous, and meaningful.

This section considers three benchmark examples—a benchmark for a pension fund with multiple managers, a hedged benchmark, and a style index.

**Multimanager Pension Fund**

A multimanager, multiasset pension fund will illustrate the use of benchmarks in a pension fund. This fund is about as complicated as one might find. It has specialist managers, which is the norm in the United States and is becoming popular in other markets. It includes...
balanced managers: Balanced management is the predominant way of measuring money in the United Kingdom and other major markets but is not so common in the United States. The pension fund also uses index funds. Finally, the fund has a centralized process by which it sets the asset allocation for the fund. That is, the fund itself has performed an asset/liability study, determined its risk tolerance, objectives, and so forth, and has as a starting point a “strategic benchmark” that reflects its preferred allocation in terms of the various asset classes available for investment.

Suppose we are professionals working for this pension fund and we are trying to (1) build a framework for evaluating decision making in the fund, (2) set benchmarks in a consistent way across the fund, and (3) evaluate our strategic decisions. We start by identifying what we want to know to evaluate our decisions. Clearly, we want to know the portfolio return. We also want to know the value added by our managers: Are they achieving the added value that justifies the active management fees we are paying? (It is at this point that the notion of a hurdle rate enters the picture.) Most importantly, we want to know the impact of each portfolio’s performance at the total fund level.

Taking this sort of overall approach avoids bogging us down in details about relatively unimportant portions of the fund—portions representing, say, less than 2 percent of assets. Materiality is important. Even though small exposures (e.g., venture capital) can be useful in a pension fund, the important point is not to spend 50 percent of our time evaluating something that is only 2 percent of the assets. When we look at our individual portfolio returns, whether they are in balanced or specialist portfolios, we want to think in terms of the total value added at the total fund level.

Next, if we have a rebalancing policy, we want to know if it is working: Are we rebalancing too often, not often enough? Do we have ranges on either side of our target allocations? Are they too narrow? Are they too wide? Do we hold too much cash in the fund (our benchmark probably holds no cash). Finally, at the end of the day, we want to know how well we are doing relative to other funds in the marketplace. We may be unhappy with our relative performance; we may be happy to be “underperforming” other pension funds because we have a different liability structure; we may be happy that we have more in bonds, less in equities, and so forth. At any rate, we need to know how our performance compares with other pension funds.

The result of dealing with these strategic questions is a multilevel framework for analysis. Each question fits broadly into one level of this framework as follows:

- **Total fund level.** At the top of the pyramid, our analysis involves how well we have done in aggregate compared with our strategic benchmarks and (if of interest) other pension funds.
- **Broad asset-class level.** If we have a balanced manager at this level, we evaluate how well that manager has done in asset allocation decisions, how well in selecting within the individual sectors, and the aggregate added value. At this level, we can also compare the broad contribution of the various segments of the fund (specialist, balanced, indexed, etc.) and measure the impact of rebalancing policy.
- **Portfolio level.** Finally, at the bottom of the analysis pyramid is the portfolio level. The analysis required at this level involves, for example, the specialist managers with local or regional assignments—for example, a domestic equity portfolio.

At each level, by comparing the portfolio return against our benchmark, (perhaps breaking value down by using attribution techniques), we can find out whether value has been added and relate that result back to the original decisions made within the investment process.
Suppose the following were our results for a quarter:

<table>
<thead>
<tr>
<th>Result</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total fund return</td>
<td>2.4%</td>
</tr>
<tr>
<td>Policy benchmark</td>
<td>1.9</td>
</tr>
<tr>
<td>Management effect</td>
<td>0.5</td>
</tr>
<tr>
<td>Allocation</td>
<td>0.3</td>
</tr>
<tr>
<td>Selection</td>
<td>0.2</td>
</tr>
<tr>
<td>Average fund return</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Our policy benchmark is just under 2 percent, so the total fund return shows that we have added value to the extent of about 50 basis points. Of that return, before breaking out currency in our attribution analysis, 0.3 percent came from differences in asset allocation between the portfolio and the benchmark and 0.2 percent came from security selection (basically, buying good stocks and bonds that allowed us to beat the assigned index). These results are good to know, but what is going on below—that is, within the fund? Is the allocation a result of the balanced manager? Do we perhaps have a tactical asset allocation manager that we need to measure? Is our rebalancing policy effective? At the selection level, which managers have contributed to the return? Do certain managers have particular strengths and weaknesses?

In order to answer these questions, we need not only a benchmark at the total fund level but also a series of benchmarks below that level that are consistent with the total fund. To measure a complete fund in this way, therefore, we need to build a workable “benchmark structure.” Such a benchmark structure is provided in Table 2, where we have defined for each of the broad segments a target asset allocation mix consistent with the total. This process is complex but not difficult. Once we have it in place, we can identify the strengths and weaknesses in the portfolio and where the value is being added. The key to success is to ensure that our benchmark structure at the total level is consistent down through all the levels. Once it is, then we can start to answer the questions noted.

A practical issue arises if we are looking at, say, a European index as the aggregate fund benchmark but are measuring certain countries within Europe separately. For example, we might pick a more broadly based market index for the United Kingdom (such as the FT/S&P-PAWI), because it is a relatively large market in Europe, than we would pick for Europe as a region. If so, we will have a mismatch between the specialist manager level and the total level that we need to be aware of. Such a factor might not invalidate our analysis, but it is important to be aware of the impact such dual benchmarks may have.

### Hedged Benchmarks

Hedged benchmarks have evolved in the past 5–10 years as a result of research conducted on long-term currency movements plus the need of some investors to create portfolios that are fully hedged against certain base currencies. One conclusion of the research is that over 10–20 years, and taking into account purchasing power parity, if currency premiums,
the short-term fluctuations, and so forth, are eliminated, the net return to currency is about zero. Some practitioners argue, therefore, that investors should not take on currency risk; others argue that if investors do not take on currency risk, if they completely hedge that risk away, they may miss opportunities in the short term. The swings that occur in currencies can be dramatic, so those U.S. investors, for example, who are totally hedged back into dollars will underperform significantly when all the other currencies appreciate. In short, a massive debate has been going on for some time about currency hedging. At any rate, those who do decide to hedge strategically will need a hedged benchmark.

Suppose we want to build a hedged benchmark. The first step is to focus on the goal of evaluating the portfolio without the currency risk. At first, we might think that the approach is simply to eliminate the exchange rate movement. An important part of building a hedged benchmark, however, is recognizing that when we hedge, we cannot hedge away the complete movement in exchange rates because of interest rate differentials between markets. A second point is that in any hedging exercise, we need to hedge back to some base currency. Hedged benchmarks have to be uniquely calculated by country; if we have, say, the JP Morgan World Bond Index hedged back into dollars and the JP Morgan Index hedged back into German marks, we cannot convert one to the other without going back to first principles. Additional issues to consider when building a hedged benchmark are (1) whether to be totally or partially hedged and (2) the impact of forward premiums on the hedged return. Suppose we have a portfolio of hedged yen bonds; that is, we have used either the Salomon Brothers or the JP Morgan Index and hedged a U.S.-dollar-based portfolio against the yen to eliminate half the currency exposure. Table 3 shows how this hedged benchmark works, illustrates some of the interactions that occur within a hedged portfolio, and shows how difficult interpreting even a simple hedged portfolio is.

The first point to make is that the hedge is 50 percent. We have decided that we are concerned about the yen volatility, so we have created a position in our policy benchmark to hedge half of that volatility away. Our benchmark position is 24 percent, and we sell yen forward at the rate of about 12 percent of the portfolio. The offset weights of the yen forward sale and the matching U.S. dollar forward purchase are the same, but we expect the yen to fluctuate relative to the dollar. So, we will end up with an unrealized gain or loss in yen, which will offset some of our currency exposure, roughly half of it.

The approach looks fine in theory, but in practice, a “forward premium” exists because of differential interest rates between Japan and the United States. Because interest rates in Japan are significantly lower than in the United States, the expectation is that the yen will appreciate relative to the U.S. dollar over time. Even if it does not, the forward currency market will assume it is going to. When we, as U.S. investors investing in Japan, hedge, we cannot hedge away the anticipated interest rate change, which will give rise to a difference between the yen

<table>
<thead>
<tr>
<th>Table 3. Hedged Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor</td>
</tr>
<tr>
<td>Hedged yen bonds</td>
</tr>
<tr>
<td>Yen bonds</td>
</tr>
<tr>
<td>US$ foreign exchange (purchase)</td>
</tr>
<tr>
<td>Yen foreign exchange (sale)</td>
</tr>
</tbody>
</table>

*Yen currency return is –3.4%.
currency return and the return on a yen forward currency position. So, if we hold a forward currency contract, if it was a purchase position, we will lose money to the extent of 4.6 percent—which is significantly more negative than –3.4 percent. The difference is the premium. If we are holding a long position, that premium is a bad thing; if we are holding a short position, it is a good thing because we make more money from it. Most of the negative return is from the currency effect; only about 0.2 percent is positive appreciation of the bonds themselves. In short, we are hedging away some of the downside risk in the yen. This hedging increases the overall return (because the yen is weak) and has a bigger impact because of the premium. That reduction is more than one might expect from merely taking away half the currency exposure. Indeed, if we had hedged completely, we would have made money from our hedge because of the premium.

This example may imply that a hedged benchmark is fairly straightforward; with multiple-asset portfolios in multiple markets, however, it becomes a lot more complicated. Managers being evaluated against a hedged benchmark need to be aware of the benchmark and understand how it affects their decision making. As always, the benchmark needs to match the strategy.

**Style Index**

A style index is simply a mechanism for evaluating a particular kind of strategy that may be a subset of a broad market strategy. Based on their beliefs and theories, various types of investors pick stocks based on such characteristics as growth versus value and/or capitalization sizes. By defining indexes that represent those different types of stocks, funds or managers can produce evaluation tools for these managers. In general usage, the term “investment style” describes various methods of investing in or selecting stocks. In this presentation, however, the focus is on indexes representing growth and value investing.

Choosing the characteristics for a style index exemplifies the need to balance intellectual purity—identifying an index that *precisely* represents a particular investment management process—against the need to be practical. Suppose we want to differentiate between the performance of our growth managers and that of our value managers. First, some stocks may well be neither growth nor value, but we have to put them somewhere; otherwise, we end up with two indexes that do not add up to the whole. Second, many, many different kinds of growth disciplines exist. Fewer kinds of value discipline exist, but they may also be different in nature. No single index will represent every single discipline. Thus, we need to compromise and be practical in this situation. We need an index that is reasonably complete and representative but also practical. For differentiating value and growth stocks, the Frank Russell Company recommends using the ratio of price to book value. P/B is not a perfect measure, but it does provide certain advantages: It broadly reflects earnings growth in a company and the extent to which that earnings growth is reinvested; it is broadly stable over time; it is readily available; and it applies widely across markets.

Some other characteristics can be used in individual markets. For example, dividend yield is a good indicator of style in the United Kingdom; it identifies divergence in performance of low-yield portfolios relative to high-yield portfolios. It does not fill the bill in other markets, however, and to provide consistency for analyzing global portfolios, using a consistent approach makes the best sense.

The construction methodology applied by the Frank Russell Company when using P/B as the determinant of an index begins with sorting all the stocks by descending P/B. Then, as the initial step, we divide the index in half by market cap and identify the median P/B.
number. At this stage, all the stocks above the median are growth stocks and all below are value stocks.

This approach is fine in theory, but in practice, we run into ambiguous situations. For example, British Petroleum is a huge stock, and it is right on the border between value and growth. In addition, although British Petroleum is an oil company, it is also a conglomerate of different businesses that, individually, probably show growth and value characteristics. To arbitrarily define such a conglomerate company as either growth or value in the absence of a clear indication based on P/B would be a leap of faith. So, the Russell methodology accepts that stocks near the median may be part growth and part value. We use a smoothing methodology to define the boundary between growth and value stocks. Consider the stocks, like British Petroleum, with P/Bs slightly above the median. As the P/B falls, the value weight gradually increases; as the P/B approaches the median, the value and growth weights both approach 50 percent; then, as the P/B falls below the median, the value weight continues to increase. At the third quartile break and below (that is, low P/B), the stock is designated as being 100 percent value.

This approach also avoids what is often referred to as the “whale in the bath” syndrome. Take our British Petroleum example. Suppose the price of British Petroleum sharply deteriorates and its P/B consequently suddenly falls below the median. Without the smoothing methodology, this whale of a stock would suddenly go from growth to value and, as a result, several (maybe many) “minnow” stocks would be forced the other way. Such a result calls into question the practicality of the index structure and makes the index very difficult to replicate.

**Conclusion**

The three most important points about choosing a benchmark are as follows:

First, everything about the selection of the benchmark must be driven by the strategy it is to measure.

Second, a benchmark provides a basis on which to make good decisions. Investing is about evaluating risk and return; the investment process provides a framework for that evaluation; and a benchmark is an instrument for evaluating risk and return. If managers are to measure the impact of their decisions effectively, they need the framework and instruments to be consistent with those decisions—which brings us back to the first point: Consistency between the decisions and the benchmark is essential if the benchmark is to be effective as a tool in decision making.

Finally, the first point must be balanced by the need to choose a benchmark that is realistic and practical. To build a complex benchmark that is intended to be philosophically perfect may be tempting, but a complex benchmark may be very difficult to use and may not measure the strategy effectively.
Implementing Global Tactical Asset Allocation in Developed Markets

R. Charles Tschantion, CFA
Managing Director, Investment Strategy and Asset Allocation
General Motors Investment Management Corporation

General Motors Investment Management Corporation is using four outside managers and an internal portfolio in its approach to global tactical asset allocation. The internal GTAA portfolio is actively managed and driven by quantitative models. The overall model combines traditional and not-so-traditional components to provide small increments of added value to benchmark returns and to enhance risk control. In addition to providing details of the modeling, the presentation outlines how GTAA is implemented to achieve the desired benchmark and TAA exposures.

General Motors Investment Management Corporation (GMIMCo) believes that tactical asset allocation (TAA) can be used effectively to manage a global portfolio. Based on this belief, we are dedicating US$1 billion to global TAA using five managers—four external managers and an internal fund. We are also in the process of conducting a related “experiment” with an additional US$500 million of pension assets to be managed collectively as a group portfolio by the five managers. The challenge of this experiment will be to get the managers to work together to produce value not only beyond the benchmark return, although that is the primary objective, but also beyond the returns from a naive strategy of taking the collective bets of the five managers and merely applying them to the group portfolio. In other words, we are trying to achieve some synergy. If this experiment succeeds, we hope to take the signals, the information, and the insights from managing this US$1.5 billion and use them to develop value-added TAA exposures for the entire US$65 billion GM pension fund. We intend to get together once a quarter with these managers and discuss where they should place the tactical bets against the benchmark.

We are only in the start-up phase of this experiment. In October 1996, we hired four outside managers to manage US$200 million each in a global TAA (GTAA) mode. In February 1997, we funded an internal portfolio with the same amount of money. We do not know, of course, exactly how many managers would be the best number; we chose five managers to achieve the benefits of diversification without the redundancies of too many managers. Having 2 firms provides no real diversification power; having 10 is apt to be redundant. Table 1 shows the correlations of excess returns from March 1989 through January 1996 between the internal manager
and three of the four outside managers (one did not have a sufficient track record to examine correlations). The correlations are based on combining a backtest of manager results and real returns from the start of the program. These low correlations indicate that we have been reasonably successful in choosing managers that do not perform like one another. In one pair, in fact—Manager 1 and Manager 2—the correlation is slightly negative.

The balance of this presentation provides details of the process GMIMCo is using to manage the internal GTAA portfolio.

The Internal GTAA Portfolio

The GMIMCo approach for its internally managed GTAA portfolio is active and driven by quantitative models. We believe we have put in place an approach that will not be taking any extreme departures from the benchmark but, instead, will take many little positions that will have a good information ratio over time and thus add reasonably significant value. The models we are using rely heavily on the theoretical concept that an equilibrium risk premium exists in stock and bond markets in the long term. That is, the models assume that the markets are basically efficient in the processing of risk and return over the long run but may deviate from equilibrium in the short run and, therefore, provide opportunities to add value if one can identify those deviations. The models also assume that the equilibrium levels are not constant over time, that they change. So, the process is dynamic; the models try to incorporate new information and new risks in terms of establishing that equilibrium level. We also believe, in line with the capital asset pricing model (CAPM), that higher-risk investments will have higher expected returns and higher actual returns over time.

In the GTAA process, the long-term equilibrium views on the market and our views on short-term disequilibrium are combined, based on our confidence in the views, into a single set of expected returns. This set is put into an optimizer together with an asset covariance matrix and certain constraints to produce final model allocations. Figure 1 illustrates the pieces that are combined to produce the integrated model.

Views

The process of generating the GTAA positions begins with establishing views on the various global markets. We are currently using four models to generate short-term views—that is, whether disequilibrium exists in a market. The models look at earnings yield gaps, earnings revisions, foreign currency attractiveness, and relative real bond yields. The earnings yield gap model takes current stock earnings yield less the long bond yield in each of the G–7 countries (Canada, Italy, France, Germany, Japan, the United Kingdom, and the United States) and compares that figure for each country with the country’s history of that

| Table 1. Correlations between GTAA Managers’ Monthly Returns, March 1989–January 1996 |
|---------------------------------|------------|-------------|-----------|
|                                 | Manager 1  | Manager 2   | Manager 3 | GMIMCo   |
| Manager 1                       | 1.00       | –0.05       | 0.38      | 0.16     |
| Manager 2                       | 1.00       | 1.00        | 0.07      | 0.28     |
| Manager 3                       | 1.00       | 1.00        | 0.43      |          |
| GMIMCo                          |            |             |           | 1.00     |

Note: Composite of simulated and live returns.
relationship. This simple model works in all seven countries. We do not use the model findings in cross-sectional analyses to determine which is the better country to invest in. Instead, we take the capitalization-weighted score of all of the country models, and if it favors equity over bonds, then we tilt the overall 60/40 mix more in favor of equities, and vice versa. So, the earnings yield gap model is used to make the broad global stock and bond decision.

For intra-equity decisions—to calculate which countries we should overweight or underweight—we use a cross-sectional model, the model of earnings estimates revisions. This model calculates the ratio for each country of the four-month cumulative number of earnings estimates that were raised versus the four-month cumulative number of estimates that were lowered. This model also has worked in all the G-7 countries, but we have data for only six and a half years, so our confidence in the results is not as high as for the other models, which have more years of data.

The model related to relative real bond yields first calculates the spread of the current real bond yield in each country with respect to the median real yield in existence in that country over the past two years. These spreads are then examined cross-sectionally to determine the weighting of the various countries’ bond markets.

So, these three models deal with, respectively, the overall stock and bond mix, the country mix for the equities, and the country mix for the bonds.

The fourth model is a foreign currency attractiveness model, which provides a cost–benefit analysis of hedging each currency. We view the costs and benefits in terms of the premiums and discounts an investor pays in hedging. For example, a U.S.-based investor would capture a great premium right now by hedging the yen back into the U.S. dollar because of the interest rate differential. We compare that benefit with the expected change in the spot rate, which we try to capture by comparing the real cash yields in the different countries.

We are currently using only these
We are considering additional models if they provide the prospect for adding value. The two shown are possibilities: One involves putting in the views of the external managers who are managing against an identical benchmark; the other is a model to enhance the country allocation for bonds based on relative yield-curve slopes and real cash returns.

As with picking the members of a group of outside managers or the securities in a portfolio, we want pieces, our short-term view models, that are not generally going to behave like one another over time. If we are successful in obtaining such diversification, when the models do give us the same signal, it is reinforcing, and when they give us different signals, it is risk reducing.

In selecting models, we focus on four basic characteristics. First, we try to make sure a model is simple and transparent—that is, that it has a direct link to capital market and economic theory. These models are not regression models; they are basically models that deal with a factor, either in a time series or cross-sectionally, and allow the analyst to make judgments about that kind of output.

Second, we look for models that have substantial predictive power. We did extensive out-of-sample tests of each of the view models and found that they do, individually, have predictive power.

Third, we look for models that have consistency over time and across borders. Again, we found that the view models generally apply to all the major developed markets. The only exception is the bond market model, which provides useful signals in only six of the G-7 countries. The model does not work for Italy, so we do not include Italian bonds in our selection set.

Finally, as noted previously, we want each model to add input to the overall process without creating much redundancy. Having additive models with low correlations with each other reduces our tracking error risk while maintaining whatever alpha-generating potential we have.

### Integrated Optimization

Our approach uses a combination of classic optimization and a model developed by Robert Litterman and Fisher Black of Goldman, Sachs & Company to generate the final allocations. Figure 2 depicts the flow in a traditional optimizer in Panel A and the flow in the Black–Litterman model, a sort of reverse-engineered optimizer, in Panel B.

In a traditional optimizer, the expected returns and the covariance matrix, which includes the volatilities of individual returns and the correlations of those returns with each other, are plugged into the optimizer, which then produces optimal weights as output. The Black–Litterman model begins with determining what the market weights are—that is, what the weights are in the benchmarks; then, using the same covariance matrix used in the traditional optimizer, it produces the expected returns as output. The model makes the assumptions that the markets are in equilibrium, that the CAPM works, that people have priced the market capitalization in the markets correctly, and therefore, that the returns the model produces must be the ones the market is expecting.

The views from the four models, the asset covariance matrix, and the constraints are then used as inputs to the optimization to modify the equilibrium returns generated by the Black–Litterman model, and this set of modified expected returns is the input into a traditional optimizer to generate tactical allocations. Naturally, the equilibrium expected returns with no views yield benchmark allocations; the views provide the appropriate modifications to expected returns to modify those allocations. For example, if the views indicate that Asset A will outperform Asset B by more than the equilibrium spread, the first part of the process would raise the expected return of A above equilibrium and lower the expected return of B below equilibrium.
The traditional optimization process would thus shift the weighting toward Asset A and away from Asset B.

The incorporation of equilibrium returns into our GTAA process provides a level of risk control not found in traditional optimization. In a traditional optimization process, if our earnings revision model, for example, said we should overweight Japan and the United States and underweight Germany, we would raise our expected returns for Japan and the United States in the model and lower our expected return for Germany and then run those revisions through the optimizer to find out what the weights would be. Because there is no tie back to global equilibrium, that process can come up with some outrageous solutions; the optimizer may all of a sudden say it wants to be 80 percent in the United States, 20 percent in Japan, and totally out of Germany. With our process, we never get to those extremes because the returns are modified together with the risks and covariances. Thus, running the single set of expected returns generated by this approach will wind up tilting our allocations, not by extreme weightings against the benchmark, but by 1–2 percent.

Also incorporated are some traditional constraints. For example, we limit the extent of our global stock/bond bets to no more than 15 percentage points either way; so, for example, we can go only as high as 75 percent and as low as 45 percent in equities against the 60/40 benchmark. We also limit our departure from the 50 percent hedged position in foreign currencies of the benchmark to ±20 percent; so, we can become as much as 70 percent hedged or as little as 30 percent hedged. In addition, we have individual country constraints: Currently, we are prohibiting our managers from shorting markets and have set a limit of 10 percentage points around the market weighting for the larger developed markets and a limit of ±5 percentage points for the smaller markets. We have similar market constraints on the bond markets, and the individual currencies cannot be more than ±5 percentage points from their benchmark weights. The constraints provide risk

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Figure 2. Traditional and Black–Litterman Optimization Flows

Panel A. Traditional Optimization Flow

- Expected Returns
- Covariance Matrix

Optimizer

Optimal Weights

Panel B. Black–Litterman Expected Returns Implied by Equilibrium

- Benchmark Weights
- Covariance Matrix

Optimizer

Expected Returns

*Cap-weighted benchmark equivalent to optimal weights under the CAPM.
controls to our overall approach.

**Integrated Model Backtest**

We performed a backtest of the integrated model, totally out of sample, for December 1989 through September 1996 and produced the results shown in Figure 3. Transaction costs would, of course, erode these alphas, so we separately made estimates of what the transaction costs of this process would be. This estimation assumed the use of futures and country baskets to keep costs low and assumed an overall cost of 15 basis points (bps) annually merely to maintain the overall structure. We estimated that our transaction costs would be 25–30 bps a year on the overall fund, so that estimate should be kept in mind in viewing Figure 3. The 12-month rolling line shows some periods, such as mid-1993, when results are substantially negative, but with a three-year time horizon, the integrated model added significant value in all periods.

This backtest was for only six and a half years, the longest period for which we had data for all the models. Some of the models that we backtested for longer periods gave us confidence that we would continue to find added value if we could backtest the integrated model for a longer period.

The average alpha reflected in Figure 3 (keeping in mind the short period and the absence of transaction costs) is approximately 310 bps a year, with an *ex post* tracking error in attaining that alpha of about 180 bps, which is an information ratio of about 1.7. Taking a substantial, 50–60 percent, haircut on that alpha, we are targeting as a performance benchmark 150 bps in excess return with the expectation of 200 bps *ex post* in tracking error. The resulting information ratio is 0.75.

**Implementation**

The first step in implementing the GTAA is to achieve the benchmark exposures, then we pursue the TAA exposures we want. The matrix shown in Exhibit 1 notes the vehicles we use for implementation by stocks and bonds on one axis and by U.S. domestic and international arenas on the other axis.

We define risk in our internal GTAA process the same way we define it for the outside managers: Risk is underper-

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**Figure 3. Integrated Model Backtest Results: Rolling 12-Month and 36-Month Alpha, December 1989–September 1996**

![Graph showing integrated model backtest results](image-url)

*Note: Returns are gross of transaction costs.*
forming the benchmark. In the GTAA experiment, each of the five GTAA managers is managing against the same benchmark, which is 60 percent of the Morgan Stanley Capital International (MSCI) All Country Index for equities and 40 percent of the Salomon Brothers Global Bond Index for fixed-income investments. For non-U.S. assets, this benchmark is also 50 percent hedged back into the U.S. dollar.

Thus, in implementing our strategy, we have to determine where to take the risk. We do so by setting a risk budget. In this case, our risk budget is the \textit{ex ante} tracking error of 150 bps. We could use the budget 100 percent for taking the models’ views and generating bets or positions that will potentially add value, or we could use part of the budget for tracking error associated with strategies that lower transaction costs but have basis risk against the benchmark. We try to make the trade-off between tracking error and transaction costs. For example, for our domestic or U.S. exposures, to achieve both the initial benchmark exposure and the TAA exposure, we use S&P 500 Index futures because they cost little and have low tracking error to the U.S. stock market. Even though the MSCI U.S. equity component is not the S&P 500, it is so closely correlated that we experience little tracking error against that component.

Similar to U.S. stocks, a deep bond futures market exists for U.S. domestic bonds. So, a hedge combining 5-, 10-, and 30-year bond futures can be used; it has low transaction costs and a reasonably low tracking error. The cost of a basket or a bond index fund to reduce the tracking error would be too high for those vehicles to be used in the U.S. market for benchmark exposure. In the case of U.S. domestic equities and bonds, futures also provide an opportunity to add value from cash management: Because these futures are priced off of LIBOR, if we can invest cash in them to generate an incremental return above LIBOR, that strategy can add some value.

On the international side, we use commingled country baskets to achieve our benchmark positions. Futures are not useful in non-U.S. markets because most of them track stock market indexes in the various countries, such as the CAC in France or the DAX in Germany, which do not match the individual country components of the MSCI well. Also, in some cases, the use of futures

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**Exhibit 1. Implementation**

<table>
<thead>
<tr>
<th></th>
<th>U.S. Domestic</th>
<th>International</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stocks</td>
<td>S&amp;P 500 index futures (to gain benchmark exposure and for TAA)</td>
<td>Commingled country equity baskets (to gain benchmark exposure and plug holes)</td>
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internationally is not possible because, in addition to the tactical bets we want to make in the G-7 countries, we also have to gain the benchmark exposure to all of the other developed markets—Belgium, Spain, and so on—many of which do not have futures contracts we can use. We use the State Street index funds as country baskets because they have been designed to track the benchmarks with low tracking error. The funds have relatively high transaction costs, particularly going in, but because we hold the benchmark positions for the long term, when the cost of rolling over futures is considered, the funds quickly match futures in costs. We also use commingled country baskets to plug the “holes” between international equity and bond positions dictated by our active models and the benchmark positions.

With respect to the tactical bets internationally, we do use futures because the transaction costs of moving money in and out of the country baskets would defeat the GTAA alpha. The low cost of the futures makes up for the medium-to-high benchmark tracking error they have.

**Conclusion**

We are very excited about this approach to tactical asset allocation and believe that it will add value over time. We also hope to have a successful outcome to the group portfolio experiment that we can report in the future.
Impact of the European Monetary Union on European Bond Markets and Portfolios

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EMU should broaden and deepen the European capital markets, improve liquidity, fill out the yield curves in European bonds, and encourage development of a corporate bond market and the introduction of high-yielding government bonds and sophisticated instruments. The major effects of EMU implementation will relate to changes in the relationship between European bonds and U.S. Treasuries, determining where the yield curve should lie, the relationship between EMU and non-EMU European countries, and sovereign spreads. Portfolio managers are likely to see a reduction in top-down investment management, a major increase in bottom-up opportunities, and the emergence of a new analytical breed—the European fixed-income analyst.

The hotels in Europe might be a metaphor for the bond markets of Europe. Travelers to Europe who have stayed in any of the nicer hotels there know that these hotels are elegant, some of them have interesting histories, and they tend to have very nice dining facilities. But if travelers ask someone to direct them to the gymnasium or the pool for some exercise, they will get a look of blank amazement. The hotels in Europe simply do not have such facilities. The European bond markets also can be very interesting; some have long and fascinating histories; many have plenty of character. The one thing they lack is cardiovascular fitness. Compared with U.S. bonds, European bonds lack length, depth, and breadth. For that reason, as a fixed-income portfolio manager, I am encouraged by the prospect of European Monetary Union. Assuming that EMU happens, the EMU process will give the European bond markets their own personal fitness trainer. The markets should shape up in a healthy fashion, which will be very positive for fixed-income portfolio management.

EMU and Market Structure

The first impact of the EMU should be improvement in the structure of the European capital markets. The European bond markets account for about 42 percent of the global bond market, with the U.S. market accounting for about 30 percent of the remainder and the Japanese market, about 24 percent. At the moment, the European bond markets are actually 15 individual markets, but clearly, as more and more countries join the EMU, that market could dominate the U.S. and Japanese markets in size.
The increasing size of the market should have a positive impact on liquidity. **Figure 1** presents a general view of liquidity in 1996 by comparing the U.S. bond market with selected European markets. In 1996, the liquidity in U.S. Treasury bonds was about double that in the German or French bond markets. In the other markets shown—Belgium, Ireland, and the ECU (European currency unit) basket—liquidity is greatly inferior. The hope is that a larger bond market for the euro under EMU will greatly improve liquidity throughout Europe.

The distribution of government debt across maturities varies quite a bit between the United States and Europe. **Figure 2** shows the distributions in 1996.

**Figure 1.** Approximate Relative Liquidity in European and U.S. Bond Markets, 1996

**Figure 2.** Distribution of Outstanding Government Debt: United States and Europe, 1996
by the percentage of the debt in each maturity grouping. Note that the United States has considerably more bonds with durations of 10 years and longer than does Europe. Moreover, Figure 2 does not do full justice to the differences, because the long end of the market in Europe does not necessarily follow the rest of the yield curve. Only certain types of investors use long bonds, so holes exist in the yield curve. To some degree, 30-year bonds in Europe are commodities.

With EMU, the yield curves in Europe should fill out and the various country markets should introduce more-sophisticated instruments—strips, for example. The key reasons are, first, that the individual countries will lose their captive savings pools. They will no longer be able to keep domestic savings and direct them only to their own government bonds, so they will have to compete for capital. The prizes for the winners will be substantial and will come in the form of reduced borrowing costs. Second, everyone will want to produce the benchmark yield curve, and the probability is that the more sophisticated the range of issues, the greater the likelihood of achieving that benchmark status. These sorts of factors should help duration management and term structure management at the portfolio level. Counteracting these positive factors is an initially negative one: Europe will lose a range of bond markets immediately because many of them will be subsumed into the euro, which will reduce the flexibility possible in portfolio management.

Compared with the United States, the European bond market not only lacks length and depth, it also lacks breadth. Lacking the range of sectors that exists in the United States, the market is dominated by government bonds. EMU may provide scope for broadening the market. For example, the potential exists for development of a corporate bond market in Europe, although progress is likely to be slow. One of the constraints on the development of a corporate bond market is the close relationship in Europe between corporations and their banks. Borrowing tends to be in the form of loans, partly because of these relationships and partly because the spreads borrowers can obtain on loans tend to be much narrower than spreads available in the corporate bond market.

Initial progress may come more in the form of securitization, including mortgage- and asset-backed securities, than in direct corporate bond issuance. Many asset-backed bonds have been issued in Europe since 1995, and the trend is likely to continue when the euro is created. But EMU should also increase the demand for corporate bonds. One of the problems historically for corporate bonds in Europe has been the lack of buyers; many European bond investors have been too conservative to buy corporates. That attitude also might change because of the development of more funded pension schemes in Europe. Therefore, professional bond management should increase and pension funds should be interested in taking the risk to achieve the high yields afforded by corporate bonds.

Initially, municipal bonds may be more likely to develop than corporate bonds. A major trend toward political decentralization is occurring; various regions want a greater say in their own future and less reliance on the old nation-state structure. The process is leading to disparity, however, between the responsibilities some of the regions achieve and the money they have to carry out the responsibilities. They often get the increased responsibility they ask for, but because of fiscal constraints, they do not get the money and resources they need. This outcome leads to a growing need for debt financing, and the bond market is the one place these regions can turn to. Another factor is that the role of traditional local finance providers is changing. The environment is much more competitive than in the past, so the old European approach of
If the municipal sector within the euro market does emerge as expected, the question becomes how to analyze those types of bonds. Given a range of municipal bonds, how should the analyst decide where they ought to trade relative to government bonds? Which ones will offer relative value? Moody’s Investors Service suggests a series of factors to examine:

• the structure of government in the particular country,
• the relationship between the municipalities and the central government (what sort of authority and powers does the municipality have?),
• the legal and institutional framework in which that relationship operates,
• economic and demographic factors (is the area wealthy or poor, and what sort of demographic structure does it have?),
• the political climate (is it a region with a stable political background, or is it a more contentious environment?),
• budgetary dynamics of the region (what sort of responsibilities for spending does the locality have?),
• borrowing powers (does the locality have the power to borrow, and if so, in what form?), and
• financial policies and management (does the locality have a track record that reveals whether the area has been competent in its management?).

This type of analysis involves fundamental examination of the issues—a process that is not typically carried out for today’s European bond portfolio, which usually is managed through a top-down process.

The general economic reform in Europe should produce a host of new high-yielding government bond markets—the markets of Eastern Europe. The distinction being drawn in Europe between emerging bond markets and mature bond markets is far too stark at present. Why should the Czech Republic be considered an emerging market and be analyzed completely separately from “mainstream” Portugal? I believe the analysis of the emerging bond markets of Eastern Europe will merge with the analysis of mainstream European bond markets. In time, more markets could be added—from the Czech Republic to Hungary, to Romania, Croatia, the Slovak Republic, and Slovenia, to Bulgaria, Estonia, Latvia, and Lithuania, then to Russia, Ukraine, Belarus, Moldavia, and Kazakhstan. The big unknown is whether the new countries will want bond markets. Their macroeconomic fundamentals imply that sovereign credit will be available, but whether they will actually issue bonds with a decent maturity that could compete with the bonds of mainstream Europe is another question.

**EMU and Market Dynamics**

EMU is likely to change the way markets operate considerably. Key changes relate to the relationship between European bonds and U.S. Treasuries, determining where the yield curve should lie, the relationship between EMU and non-EMU European countries, and sovereign spreads.

**Relationship with U.S. Treasuries**

Nothing is more frustrating than asking someone for a view on German bond yields, being told, “I think they will go higher,” and when asking why, being told, “Well, I am bearish on Treasuries.” The response is all too common, and of course, it is based on common sense: The U.S. Treasury market does dominate much of what happens in global capital markets. One reason may be that, depending on the time horizon examined, correlations are increasing between various bond markets, particularly among the markets of the Organization for Economic Cooperation and Development (OECD). (Some researchers question the idea that correlations...
are increasing, but most practitioners believe that the markets are moving together.)

Macroeconomic sense also lies behind the influence of U.S. Treasuries. Nowadays, analysts are using a single macroeconomic model, one that everyone believes to be correct (and let’s hope they are right!), so there is little argument about what constitutes good fiscal policy, good currency policy, and so forth. Therefore, a convergence in real economic performance has been occurring. The range of inflation rates among countries is much narrower than ever before. So, perhaps the primary key to knowing whether euro bond yields are likely to go up or down is knowing whether U.S. T-bond yields are likely to go up or down. Other factors, however, may also enter the picture.

The correlation between euro bond yields and Treasuries is liable to be less in a few years than the correlation is now between, say, German bonds and Treasuries. The example of Japan is relevant here. The Japanese bond market seems to move on its own fundamentals; it apparently does not slavishly follow U.S. T-bonds. One reason may be the scale of the Japanese market, and the euro capital market will probably be sufficiently large that the direction of its interest rates also will be dominated by its own domestic determinants.

**Determining Where the Yield Curve Should Lie**

If the euro bond market does begin to move separately, then global bond portfolio managers need to address where the yield curve will be in relation to the U.S. Treasury market. Figure 3 shows a comparison of the U.S. and European yield-curve structures (with the ECU market as a proxy for the euro) prevailing in April 1996. The euro curve is clearly below the U.S. curve, but this figure does not reveal where equilibrium lies across the cycle because it must be taken in the cyclical context, in that

**Figure 3. Prevailing U.S. and ECU Yield-Curve Structures, April 1996**

![Graph showing U.S. and ECU Yield-Curve Structures](image-url)
the European economy was weak at the time and, therefore, European bond yields would be expected to be below U.S. yields.

Several analytical approaches suggest that the euro yield curve could well lie beneath the U.S. yield curve. One approach is to recognize that nominal bond yields are simply the sum of three parts—the real yield, the inflation differential, and the risk premium—and compare those three parts between the two markets. This task is not easy, however.

- **Real yield.** Some people argue that the real yield in the United States and in Europe should be the same because the capital market is global in nature and thus efficient. Others contest the efficiency of the market and the idea that real yields should be the same. Moreover, what is the real yield?

- **Inflation differential.** To compare five-year euro bonds with five-year Treasuries, one needs an opinion on what the inflation differential is likely to be over that period.

- **Risk premium.** Where the risk premium is concerned, the European outlook is far less certain than that of the United States.

My very subjective opinion is that these three parts taken together lead to a conclusion that euro yields will be below U.S. Treasury yields over the full cycle.

Another approach is to look at foreign exchange—whether the euro as a currency is likely to be weak or strong. If a portfolio manager makes a bet that the euro will be weak in relation to the U.S. dollar over time, then that manager should be rewarded with a higher interest rate, and vice versa. To address that issue from an economic viewpoint, Table 1 presents some comparative data for Europe, the United States, and Japan. Assuming all the relevant countries are participating in the euro, the European economy, with 39 percent of total GDP, will be the greatest of the three. The savings rate in Europe will be comparable with Japan’s and much higher than in the United States. The debt-to-GDP ratio (which reflects indebtedness) in Europe will probably average somewhere between those of the United States and Japan. In terms of the current account, another indication of how a currency might move, Europe will have a surplus.

The current-account situation in Europe is generally healthy. As Figure 4 shows, in recent years the Japanese surplus has been declining, the U.S. current-account deficit is seemingly bogged down, and in Europe, the surplus has been gradually climbing. Our view is that the healthy current-account situation for Europe will support the euro. Keep in mind again, however, that this factor is cyclical. With a relatively weak European economy, Figure 4 is probably flattering to the current-account situation in Europe.

Another aspect of judging where the yield curve should lie is the potential of the euro to become a reserve currency. Logically, the euro ought to have a role as a reserve currency. If one looks at world trade, identifies the country of origin or the region of origin for all the trade, extracts any trade between Europe, the United States, and Japan, and counts everything that is left, the

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<th>Table 1. Comparative Macroeconomics if EMU Implemented</th>
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<td>Share of GDP</td>
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*Note: Numbers have been rounded.*

*Source: OECD.*
three regions stack up as follows as sources of trade for the rest of the world: Japan 21 percent, the United States 35 percent, and the European Union (EU) 44 percent. The implication is that the euro should have a role as a reserve currency.

An issue related to the euro’s potential as a reserve currency is the question of foreign exchange reserves. According to Goldman, Sachs & Company data, total EU foreign exchange reserves for 1996 were about US$238 billion. The majority, about US$193 billion, was in non-European currencies; U.S. dollars would be the largest component, but some would also be in yen. When the European Central Bank is created, it will need about US$50 billion of that total. The rest would be surplus. On Day 1 of EMU, the central banks of Europe should thus have substantial surplus reserves, most of which will be in non-European currencies, and reserves of that size should no longer be needed because much of the foreign trade will turn into regional trade within the single currency zone. The result could be an overhang of non-European currencies, which could find their way into the market. This circumstance is likely to make the euro a stronger rather than weaker currency over time.

These factors taken together support the notion that the euro yield curve could well lie beneath the U.S. yield curve over time.

**Relationships of EMU with Non-EMU European Countries**

The next impact of EMU to consider is what will happen to those European countries that do not join. What will be the relationship between euro government bond markets and, say, the U.K. bond market if the United Kingdom does not participate? The euro bond market may move independently of the U.S. Treasury market, but within Europe, correlations among bond markets should increase. **Figure 5** shows the pattern of three relationships beginning in December 1987 and ending in December 1996. The Germany–United Kingdom and
Germany–France bond market correlations have been relatively high and stable in recent years. The relationship between German and Italian bonds has been more volatile, but in 1996, that correlation rose.

When EMU is created, an exchange rate mechanism is likely to be introduced for most non-euro currencies, and eventually, a system will be established of virtually fixed exchange rates between the euro and the other European currencies. For example, if Italy does not join on Day 1, Italy is almost certain to have a fixed exchange rate with the euro, which ought to lead to a high correlation between the bond markets of Italy and the EMU countries.

How that situation will affect portfolio management depends on one’s perspective. On the one hand, that high correlation is bad, because low correlations provide more opportunities for strategic positioning. When correlations are low, a manager can look for major moves in relative performance between markets. On the other hand, high and stable correlations create greater opportunities for tactical positioning. If one bond market moves out of line with another and a manager believes that sooner or later the currencies will revert back to their means, the manager can put an anomaly switch on to capitalize on the expected reversion.

**Sovereign Spreads**

One obvious question is: How stable are the sovereign spreads likely to be? The answer, based on the past, is: Pretty stable. Managers are not likely to obtain spectacular returns by selecting “the right country.” **Figure 6** uses the example of Sweden versus the United Kingdom in 1996 for U.S. dollar five-year bond issues. For most of the time, the spread moved within a 10–15 basis point range. If a portfolio manager is willing to put on a bond position, a bond switch, and take it off for a quarter of a point, this spread relationship has enough room for such a strategy. But the relationship is certainly not the sort that will provide substantial returns.

The example given in **Figure 7** of Portugal and Ireland in the German mark bond market shows even less opportunity. Portugal and Ireland are
two seemingly very different countries, but the spread relationship between the two has been highly stable. One lesson from this analysis is that sovereign spreads will need to be analyzed after EMU but the scope to add material value is going to be very small. Nevertheless, country selection has to be done, and the question is how to decide between the various countries.

Typically, managers tend to view currency risk as very different from credit risk, but in sovereign bond analysis, they should not be separated. The reason is seigniorage: If a sovereign state wishes to repay its debts, it can simply print money and pay off the debt. If its currency is convertible, it can even follow that course for overseas debt; it can print notes, exchange them on the foreign exchange markets, and then redeem the hard-currency debt. In that case, all the country is doing is transferring credit risk to currency risk. Because it will remove the ability to follow that approach, the European Central Bank will have a major impact on currency and credit risk after EMU. Seigniorage will no longer exist for EMU countries. Individual countries will lose control of monetary policy, so the option of simply printing money to pay back sovereign debt will no longer exist.

Whether the end of seigniorage matters in the real world is a question of some controversy. Moody’s and Standard & Poor’s apparently have different
views, with one thinking it is significant and the other thinking it is not. If it is significant, then the day a country signs up for the EMU, its credit rating is likely to decline, at least at the margin. The irony is that a country that chooses not to join, and thus retains seigniorage, could end up with a higher credit rating than a country that gives up its monetary policy independence. Portfolio managers will have to decide, as EMU approaches, how the markets will react to the situation. Bond investors may simply assume that the issue is academic, but I suspect that it will have an impact on spreads.

Sovereign credit analysis after EMU will involve a number of new issues in addition to the usual factors. In general, the tougher the EMU environment is, the wider the spreads are likely to be because of pressure on the weaker members. Some questions to consider are as follows:

- To what extent will fiscal sovereignty be retained by individual countries?
- A stability pact is to be put in place, but will it be a serious pact? If it is tough and countries have little fiscal flexibility, the spreads of the weaker currencies and the more indebted countries will suffer.
- How deflationary will EMU be? Everyone at the moment is using EMU as a deflationary project. If it continues to be so used, again, it puts pressure on the weaker currencies and their spreads are likely to widen.
- Will a bailout of the weaker debtors occur? The Maastricht Treaty suggests that no bailouts of sovereign states will take place, but many investors assume that if the question actually arises, support will be given. The question of bailouts could influence the general level of spreads.
- The final issue concerns the possibility of countries leaving the EMU. Even if EMU goes ahead, what happens if countries begin to leave? Spreads could have much greater volatility. The example of Quebec trading in Canadian dollars could be used to see the potential impact of countries leaving the EMU.

**EMU and Portfolio Management**

An improved structure of the European bond markets and the changing market dynamics that EMU will spur have implications for the management of European bond portfolios and the European portions of global bond portfolios.

One way to look at the expected impact of EMU is in terms of efficient frontiers. Figures 8, 9, and 10 reproduce research carried out by Nomura Securities International on the returns of hedged and unhedged bond portfolios. The figures highlight the types of issues that will have to be addressed. They are drawn from the viewpoint of a German-mark-based investor who is looking at a European bond portfolio. Nomura used modeling techniques to examine efficient frontiers before EMU and projected efficient frontiers after EMU. Figure 8 shows the pre-EMU efficient frontiers for unhedged and hedged Euro bonds. The two lines are somewhat different from what one would see from a U.S.-dollar perspective. In Nomura’s analysis, the unhedged efficient frontier is the more attractive, and part of the reason is the expectation of currency gain over time from a German mark perspective. Currency’s role is quite powerful in this example.

For the post-EMU environment, the Nomura researchers made two assumptions. One is that correlations between European countries—outside and inside the EMU—will be higher than before EMU. Nomura researchers also assumed that the euro market itself will be less volatile after EMU than its pre-EMU component parts have been. If the Maastricht criteria have been achieved, the economic results ought to encourage less volatility in the bond markets. Under
Figure 8. Pre-EMU Efficient Frontiers for Hedged and Unhedged Bond Portfolios

Source: Research by Nomura Securities International.

Figure 9. Pre- and Post-EMU Efficient Frontiers: Unhedged

Source: Research by Nomura Securities International.

Figure 10. Pre- and Post-EMU Efficient Frontiers: Hedged

Source: Research by Nomura Securities International.
those assumptions, as Figure 9 shows, the efficient frontier for an unhedged portfolio looks less attractive than it did before EMU. The frontier has moved down almost to the level of the pre-EMU hedged portfolio in Figure 8. The reason for this deterioration is the lack of currency gain. The absence of the foreign exchange dimension under EMU will be a negative for an unhedged portfolio.

Figure 10 draws a different picture. The profile of the currency-hedged efficient frontier has moved up after EMU from its pre-EMU position. The reason for the improvement is simply the lower volatility assumed to follow EMU implementation. Before EMU, the unhedged bond portfolio dominated the hedged portfolio, but after EMU, because of the absence of currency gains and reduced volatility, the hedged portfolio is predicted to dominate, as Figure 11 shows.

In general, although the structure of the bond markets is expected to improve and to provide greater flexibility for duration and term structure management, EMU’s reduction in the number of individual capital markets is likely to reduce top-down investment management opportunities. At the same time, the industry can expect a major increase in bottom-up opportunities from a more vibrant European capital market with more sectors than simply government bonds. These developments are likely to have profound impacts on the management of European bond portfolios. One outcome will be the emergence of the European fixed-income analyst—a rare animal at the moment. Most fixed-income operations in Europe are a top-down exercise with a strong generalist component; the staff is composed of portfolio managers who do a mixture of long-term strategy and portfolio management. The operation may have a trading desk, but although it does some bottom-up investing, it is largely devoted to execution.

Moreover, if the importance of bottom-up investing increases, then a specialist structure, with employees who are doing purely the bottom-up credit analysis, for example, may become appropriate. Such a change could also have an impact on organizational structure, which might then include specialist research teams.

These changes could lead to style differentiation. Presently, the styles in which European bond portfolios are managed are broadly similar. Some firms are better than others, but the techniques they use are similar. If bottom-up capability is added to top-down capability, it is only a matter of time before someone thinks of firing the economist.

Figure 11. Post-EMU Efficient Frontiers: Hedged and Unhedged

![Figure 11. Post-EMU Efficient Frontiers: Hedged and Unhedged](image)

Source: Research by Nomura Securities International.
and simply running money with the bottom-up team. So, one result might be "nondirectional" European bond management, and the range of management styles available in the United States might soon be available in Europe.

Finally, the change in market dynamics will have an impact on global bond portfolios. If a full range of bond types becomes available in Europe, the option of bottom-up management in Europe as well as in the United States will surely transform global bond management. Simply running global bond portfolios from an asset allocation viewpoint will no longer be sufficient. Bond analysis in Europe as well as in the United States will require bottom-up analysis.

The worldwide industry contains a great reservoir of professionals with analytical ability in the U.S. fixed-income area, but those analysts may not have the knowledge of the local borrowers in Europe. In Europe, fund managers tend to know the regions well but may lack the skills to do the new type of analytical work. Therefore, changes in mandates for the management of global bond portfolios will, in turn, present organizational challenges. In theory, firms will want to have bottom-up bond teams for both continents, but having investment personnel spread across centers is more difficult than having them all under the same roof. The investment process itself could come under some scrutiny in the years ahead as EMU develops.

**Conclusion**

EMU will affect European capital markets, market dynamics within those markets, and bond portfolio management—both within Europe and around the world. The first impact of EMU should be improvement in the structure of the European capital markets. The capital markets should both broaden and deepen. The second impact should be on the dynamics of the market. Under EMU, the way the markets operate—the sorts of factors they respond to—is likely to change considerably. On the negative side, portfolio diversification opportunities are likely to decrease, so the scope for top-down portfolio management may be reduced. The bottom-up opportunities, however, are likely to improve considerably, which leads to a third impact: The investment management process itself is likely to change. Indeed, the impact of EMU on the process may be so great that the organizational structure of investment management firms in Europe could be affected. Overall, EMU is likely to be a positive development for the European bond market.

I have made the assumption in this presentation that EMU will start, but I did not assume it will necessarily work. If the whole project ends in tears, no one knows what will happen. The Maastricht Treaty has no mechanism for exit; no allowance is made for the whole thing not working particularly well. What would happen to spreads if countries started to leave or the project looked as if it could not continue and what would happen to the value of the euro in the currency markets if some of the members began to talk about leaving are part of the great unknown.
Indexing Emerging Markets

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Investors define “emerging markets” in practical ways. A criterion that is increasingly important is investability; without it, investors cannot obtain the high returns these markets promise. Today, several families of emerging market indexes allow investment managers to create innovative index-based—but far from passive—strategies for emerging market investing. Indexing can provide diversification, minimal transaction costs, reduced management fees, and consistent long-term returns in line with the asset class.

Regardless of how fascinating, potentially rewarding, and dynamic emerging markets appear to be, investors need to decide how to actually invest in these markets. In ever-changing markets such as those in developing economies, this decision can be a challenge. This presentation reviews the definition of emerging markets—the official definitions and the definitions used in practice—and analyzes the characteristics of the primary emerging market benchmarks. In addition, the presentation addresses the challenges for traditional active managers in emerging markets and the advantages of index-based strategies for emerging markets. It concludes with an overview of index/quantitative portfolio management techniques, with a focus on implementation issues and tactics for using index-based approaches to efficiently access this dynamic asset class.

Defining the Asset Class
Emerging markets can be defined in a variety of ways. Most practitioners start with the definition established by the International Finance Corporation (IFC), the private-sector arm of the World Bank, which coined the term “emerging market” in 1984: An emerging market is a stock market in a low- or middle-income developing country (as defined by the World Bank). The per capita GNP figure changes this definition each year, but as of 1996, a “developing country” was one with a per capita GNP of less than US$9,386. By that criterion, more than 170 countries currently qualify as developing economies; of these countries, more than 60 have stock markets that function well enough that investors can recognize them as real, albeit less-developed, stock markets.

Figure 1 shows a variety of developed countries (on the right) and developing countries (on the left) by 1995 market cap to GNP and GNP per capita. (Note that both axes in Figure 1 are log scales.) Countries with GNP per capita of about US$9,400 are officially not developing countries by the World Bank standard, so Taiwan, for example, is an outlier. In practice, the definition of emerging stock markets is broader than the official economic definition, but even the pure
economic definition does not conform exactly with investment practice.

Another approach is to look at countries in terms of the ratio of their “investable” market capitalization to GNP. Surprisingly, several emerging markets have high market capitalizations as a percentage of GNP; as Figure 1 shows, the percentage for Malaysia, South Africa, and Chile is higher, in fact, than that of most developed markets. But the market cap in the emerging markets is not all investable by foreigners. When markets are screened for investability, these countries generally move down to below 100 percent of GNP. As a result, investors have developed a more practical definition of an emerging market: An emerging market is “a stock market that does not function as well as those in developed markets.”

Investors approach a definition of the emerging market asset class along three paths. The first path is simply to single out the countries that are not “developed”—that is, for a U.S. investor, countries not in the Morgan Stanley Capital International (MSCI) Europe/Australia/Far East (EAFE) Index and for a U.K. investor, countries not in the Financial Times/Standard & Poor’s Actuaries World Index (FT/S&P-AWI). This straightforward path has some problems, however, some of which are created by the index vendors themselves. For example, although Malaysia is firmly in the emerging market category by most definitions, it is in the EAFE Index as well as the MSCI Emerging Market Free (EMF) Index and the IFC Investable (IFCI) Composite Index. South Africa, Brazil, and five other emerging markets are in the FT/S&P-AWI. Israel is a developed market by World Bank standards, but it was put in the EMF in 1993, partly on the basis of a survey of practitioners, and added to IFCI coverage in 1997.

The second path to a practical definition of an emerging market singles out the markets that are simply more difficult to access than developed markets because of statutory restrictions on foreign investments or because of insufficient liquidity and/or substandard trading and settlement mechanisms. Restrictions on portfolio investment can be onerous even in some of the wealthiest and most advanced emerging markets, particularly in Asia—markets such as Taiwan and South Korea. Liquidity and trading mechanisms can create problems; cumbersome scrip-based physical settlement procedures in India and Venezuela are an example, as are the less liquid and premium-priced “alien board”-quoted stocks in Thailand and Indonesia. Such markets have aspects that managers should make clients aware of when suggesting that clients invest in them.
aware of, aspects that might justify a plan sponsor “red flagging” them for exclusion from a portfolio even if they are part of the generally accepted emerging market universe.

A consensus has evolved within the institutional investment community around a third path to achieving a practical definition of emerging markets—that of focusing on “investability.” This approach starts with the broad asset class that can be accessed to some degree—if not 60 markets, then at least 45–50 markets—and segments it by criteria: openness to foreign investors, liquidity, and transactional efficiency. The result is a narrower universe than the original 45–50 but still a diverse universe of 20–30 emerging markets representing all developing regions.

**Emerging Market Benchmarks**

The emerging market universe is defined by three indexes that have become well known to institutional and international investors—the IFC indexes, the MSCI indexes, and the ING Barings indexes. Each index portrays the markets in a consistent way, so an investor or manager can compare apples with apples, oranges with oranges, while having a practical definition of the asset class, namely, the investable universe. And like emerging markets themselves, the indexes evolve and expand regularly to include new markets.

The IFC indexes were the first family of emerging market indexes and have the longest time series. It is a rapidly growing family, which now includes four distinct index series, the broadest of which covers 44 markets. The IFC Global Index (IFCG) is the original index series; it is not screened for investability for foreigners. The IFCI is rigorously screened for investability. The IFC Tradable Index (IFCT) is even more narrowly defined on the basis of liquidity for active trading and derivative use. The newest family member, the IFC Frontier Index (IFCF), and covers the newest emerging markets, many of which are not yet appropriate for institutional investors. The IFCG indexes were launched in 1981, with some history extending back to 1975. The IFC is derived from the IFCG but screened at the market and security level for investability and liquidity. The IFCI indexes are currently the dominant benchmarks for index funds in emerging markets. As of the end of 1996, approximately 75 percent of indexed emerging market assets were tracking the IFCI.

The MSCI emerging market indexes were launched in 1987. The broadest index, known simply as the EM Index, covers 26 markets; the EMF Index covers only investable emerging markets and stocks. The EMF is similar in construction to the EAFE Free Index and MSCI’s other investable indexes for the developed markets, such as the MSCI World Free Index. MSCI recently enhanced the EMF methodology to account for foreign board share prices as well as major free-float considerations. Its primary strengths are that it can be linked to the MSCI developed market indexes—for example, the MSCI All Country World Index covers 47 developed and emerging stock markets using a single methodology—to provide seamless coverage of developed and emerging markets.

The ING Barings Emerging Market indexes (EMI) were launched in 1992 to address the liquidity and tradability concerns of some investors. They have been adopted as benchmarks for some individual funds but have not gained broad acceptance as benchmarks among pension plan sponsors and consultants because they are considered too narrow; they generally cover only about 40 percent of total market capitalization.

An investable emerging market universe as defined by the three indexes contains about half the countries of a full index. **Table 1** shows the 26 markets and their weights in the IFCI Composite and in the EMF at the end of 1996. The indexes cover the same number of countries but are not...
in harmony on which countries are included. Israel is currently in the EMF but not the IFCI; Zimbabwe, which is in the IFCI, is not yet in the EMF. Furthermore, Taiwan was added to the EMF only in 1996. The IFCI plans to expand before the end of 1997 to 31 countries. The five planned additions are Egypt, Israel, Morocco, Russia, and Slovakia. The IFCG universe also includes Nigeria; the IFCF adds a dozen more countries—Bangladesh, Botswana, Bulgaria, Côte d'Ivoire, Ecuador, Ghana, Jamaica, Lithuania, Mauritius, Slovenia, Trinidad and Tobago, and Tunisia.

### Roles of Benchmarks in Emerging Market Investing

The purpose of benchmarks in emerging market investing is no different from their purpose in developed market investing. In many ways, however, benchmarks are even more important in emerging markets because the asset class itself is both amorphous and dynamic. Therefore, the first role of a benchmark in emerging markets is simply to define the asset class.

The second role is to serve as a tool for determining strategic allocations to

### Table 1. Comparison of Country Coverage and Weights: IFCI Composite and EMF as of December 31, 1996

<table>
<thead>
<tr>
<th>Region/Market</th>
<th>IFCI Composite</th>
<th>EMF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total number of stocks</strong></td>
<td>1,225</td>
<td>1,021</td>
</tr>
<tr>
<td><strong>Latin America</strong></td>
<td>33.2%</td>
<td>30.9%</td>
</tr>
<tr>
<td>Argentina</td>
<td>3.9</td>
<td>3.4</td>
</tr>
<tr>
<td>Brazil</td>
<td>11.4</td>
<td>12.3</td>
</tr>
<tr>
<td>Chile</td>
<td>5.2</td>
<td>3.6</td>
</tr>
<tr>
<td>Colombia</td>
<td>1.0</td>
<td>0.7</td>
</tr>
<tr>
<td>Mexico</td>
<td>9.8</td>
<td>8.1</td>
</tr>
<tr>
<td>Peru</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Venezuela</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
<td><strong>East Asia</strong></td>
<td>13.7%</td>
<td>17.2%</td>
</tr>
<tr>
<td>China</td>
<td>0.7</td>
<td>0.6</td>
</tr>
<tr>
<td>Philippines</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>South Korea</td>
<td>2.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Taiwan</td>
<td>7.3</td>
<td>8.9</td>
</tr>
<tr>
<td><strong>South Asia</strong></td>
<td>32.8%</td>
<td>33.0%</td>
</tr>
<tr>
<td>India</td>
<td>1.9</td>
<td>5.4</td>
</tr>
<tr>
<td>Indonesia</td>
<td>4.5</td>
<td>5.5</td>
</tr>
<tr>
<td>Malaysia</td>
<td>22.9</td>
<td>16.6</td>
</tr>
<tr>
<td>Pakistan</td>
<td>0.5</td>
<td>0.6</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>2.9</td>
<td>4.8</td>
</tr>
<tr>
<td><strong>Europe/Mideast/Africa</strong></td>
<td>20.4%</td>
<td>19.7%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>0.5</td>
<td>1.3</td>
</tr>
<tr>
<td>Greece</td>
<td>1.5</td>
<td>1.2</td>
</tr>
<tr>
<td>Hungary</td>
<td>0.5</td>
<td>0.4</td>
</tr>
<tr>
<td>Israel</td>
<td>—</td>
<td>2.1</td>
</tr>
<tr>
<td>Jordan</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Poland</td>
<td>0.8</td>
<td>0.5</td>
</tr>
<tr>
<td>Portugal</td>
<td>1.9</td>
<td>2.0</td>
</tr>
<tr>
<td>South Africa</td>
<td>12.6</td>
<td>10.9</td>
</tr>
<tr>
<td>Turkey</td>
<td>2.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>0.1</td>
<td>—</td>
</tr>
</tbody>
</table>

Sources: IFC; MSCI.
emerging markets. Beyond simply defining the asset class, benchmark indexes allow investors to determine the optimal strategic allocation to emerging markets. A primary benefit of emerging markets for plan sponsors is diversification, and even the most active of active managers needs tools for analyzing such benefits. If a manager decides not to follow the weights the indexes are using, the indexes are nevertheless useful (and primary) tools in the allocation process. Thus, benchmarks and indexes do not necessarily have to enter the debate about indexing versus active management. Figure 2 shows the diversification effects, using historical returns for an eight-year period, of adding the IFCI Composite to an EAFE portfolio. Such use of index returns in an efficient frontier diagram is an essential part of determining overall policy allocation for emerging and developed markets.

The third role of benchmarks is to measure manager performance. Certain investment managers dealing in emerging markets have in the past stated: “You cannot benchmark me because there is no good benchmark to use.” But benchmarks are necessary to measure manager performance and can now be used appropriately in connection with emerging market investing.

Finally, benchmarks and indexes in emerging markets, as in developed markets, are increasingly becoming an investment vehicle in their own right. Indeed, the most important new characteristic of the two main emerging market benchmarks is that they are becoming indexes that one can actually invest in. They are realistic benchmarks. Five years ago, a fund manager could say, “That’s nice that the IFC or MSCI has an index for emerging markets, but you cannot actually get those returns.” Since 1993, investors have been able to get emerging market benchmark returns, and the efficiency of doing so is rapidly improving.

**Index Construction Issues**

Once investors determine “how much” to allocate to emerging markets, they can then determine “how to” get exposure to the markets. But investors should first have a good understanding of how the benchmarks are constructed.

The key issues related to benchmarks in emerging markets concern country and security coverage, construction methodology and investability, market weights, availability, and objectivity. Although several other emerging market benchmarks exist, in this comparison, I focus on the two benchmarks that have gained wide acceptance from emerging market investors: the IFCI and the MSCI EMF.

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Figure 2. Efficient Frontier: Adding the IFCI Composite to the EAFE Index, December 1988–February 1997

Sources: Data from MSCI, the IFC, and Barclays Global Investors.
- **Coverage.** Index coverage relates to the number of stocks and markets in a benchmark. Both index providers have greatly expanded their coverage in the past several years, and by late 1997, the coverage of each is expected to expand even more, with the IFCI growing to 31 markets. Despite its lower market capitalization, the result of more rigorous screening for foreign investability, the IFCI currently includes 1,225 securities to the EMF’s 1,021.

- **Construction methodology and investability.** Investors need to assess whether an emerging market index offers practical investability—that is, whether international institutions can effectively realize the returns of the index. The key issues relate to liquidity of the markets and securities, legal restrictions on foreign investors, and cross-holding/free-float adjustments. These issues are complex in most emerging markets because information is difficult to access. The problems have no simple solutions, but the advantage goes to the index that defines investability consistently across and within markets. The index should examine what is truly investable by foreigners and remove the percentage of market capitalization that is not available. The index should also adjust for cross-holdings and government holdings that are not available to portfolio investors.

The index providers use different methodologies for handling these issues. The IFC deals with availability to foreign investors, cross-holdings, and government holdings in excruciating detail. If, for example, Company A owns 30 percent of Company B and Company B owns 15 percent of Company C, the IFC indexes (assuming a three-stock index and that the stocks are all the same size) will have a market capitalization that looks like the bottom row of Figure 3. The MSCI EMF, in contrast, uses an all-in or all-out methodology. The EMF makes a judgment about whether a stock is open or closed and, in the case of the three stocks in Figure 3, would be likely either

---

**Figure 3. IFC Adjustments for Cross-Ownership**

<table>
<thead>
<tr>
<th>Company A owns 30% of Company B</th>
<th>Company B owns 15% of Company C</th>
</tr>
</thead>
</table>

Cross-Holdings =

- A
- B
- C

IFCI Market Capitalization =

- A
- B
- C
to include B and C at full market cap or to include A at full market cap. The more likely scenario would be for the EMF to take out B and C completely. The problem is that B and/or C might be very liquid stocks in the index. In South Africa, for example, which is probably the most extensively cross-held market in the world, Anglo-American Corporation of South Africa Ltd. and DeBeers Consolidated Mines Ltd. are the two most liquid stocks, but MSCI removes Anglo-American. The IFC would not drop one or the other out but would put in a slice of each. So, using the IFC indexes as benchmarks provides exposure to the markets without taking out liquid shares.

- **Market weights.** Another key issue is the weight of individual markets in an overall asset-class index. The IFCI and EMF contain a large number of emerging countries, but when the weights are aggregated, significant concentrations appear in both indexes. In both, the top five markets in a 26-market universe comprise more than 50 percent of the index market capitalization. And at many times in both benchmarks’ histories, single markets have been more than 20 percent of the weight. The most recent example is Malaysia, but South Africa was heavily weighted in 1995, as was Mexico in 1994. The effect is not as extreme as the weight of Japan in the EAFE Index (Japan is currently about 30 percent but was 60 percent in 1989), but such concentration can be an issue for many investors. The solution that Barclays Global Investors (BGI) has developed to this problem is to provide our clients with alternatively weighted benchmarks. These custom indexes can reduce market concentrations (for example, by constraining the weight of larger markets) or tailor the weighting to other client preferences. We may, for example, use a liquidity-tiered weighting approach, which would group emerging markets into two or three tiers based on size, correlations, and trading costs and then equal weight allocations within each tier.

- **Transparency and broad availability.** The transparency of an index is maximized when the calculators rigorously follow a set of well-defined and well-understood rules. The IFCI has had a clear advantage in this area because the EMF’s rules for security inclusion are generally more subjective and the IFCI’s methodology for treating markets and securities is more consistent and predictable. For example, the IFC publishes specific “investable weight factor” ratios for each stock in the index. The ratio includes the degree to which the stock is open to foreigners, the degree of cross-holding, and the degree of government ownership. MSCI has made significant strides in this area in the past two years, and although the edge in transparency still goes to the IFCI, the gap is narrower than it was in the mid-1990s. Both index compilers must rely on numerous exceptions to their rules, however, to account for the diversity of market microstructure in emerging markets.

Information on the IFCI and EMF is broadly available from screen-based information services, in print, and on the Internet.

- **Objectivity.** This issue involves the reasons behind an index’s inclusion of markets and securities. Both the EMF and the IFCI can be considered objective. The IFC, as a member of the World Bank Group, is committed to the development of emerging stock markets, but it retains strict neutrality with regard to market inclusion and stock selection for the indexes. The IFC’s objectivity is enhanced by its Index Advisory Panel, which provides guidance from market practitioners about index policy. The EMF is constructed and maintained by Capital International Perspective in Geneva, which maintains a solid “fire wall” between its operations and Morgan Stanley’s investment banking and brokerage activities.

### Challenges for Active Managers

Delivering the potential returns from emerging markets poses many chal-
lenges to active managers. In the past five years, the growth of funds under management that are targeted to emerging markets has been phenomenal. The funds are both institutional and retail. Many of the investments are coming from dedicated emerging market funds, managers with specific mandates to expose portfolios to the emerging markets, but there are also a lot of “dabblers”—EAFE-mandated managers who have permission from their plan sponsors to go, say, 5–10 percent into emerging markets or managers with an Asia or Pacific Rim mandate, which inherently entails a 20–30 percent exposure to emerging markets. Such mandates may be the most dangerous types from a manager’s as well as a plan sponsor’s perspective. If emerging markets are not specifically in the manager’s mandate, the amount of emerging market exposure in the portfolio is unclear to both parties. In such circumstances, the manager might be taking inappropriate risks, and the plan sponsor could receive nasty performance surprises.

At the same time as emerging market funds under management are increasing, the number of undiscovered markets is shrinking. Getting sufficient exposure to Sri Lanka, Bangladesh, or Slovakia in an emerging market portfolio to make a difference at the portfolio level is difficult. Even if a manager could buy all the securities in such a market, allocating into such markets the 3–5 percent of the portfolio needed to deliver benefits to overall portfolio performance would be very difficult.

The availability of information and data, however—earnings estimates and so on—is rapidly improving. The quality of the data is not as high as for the developed markets, but so much more information is available in the emerging markets than previously that, although the emerging markets are significantly less efficient than the developed markets, their efficiency is growing. Nevertheless, transaction costs—the actual costs of moving in and out of these markets—are not diminishing much; costs are about three times as high as in developed markets and five times the cost in the U.S. domestic markets.

A key question for practitioners is: Can active management still beat the indexes in the emerging markets? Despite most people’s intuition that meeting this challenge should be relatively easy, the answer is far from conclusive. Beating the indexes may depend on the universe and the time frame. Table 2 shows the average performance of three pools of managers from Micropal’s manager universe—global emerging market

<table>
<thead>
<tr>
<th>Management Area</th>
<th>Number of Funds</th>
<th>One-year Returns</th>
<th>Three-year Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>268</td>
<td>7.23%</td>
<td>8.66%</td>
</tr>
<tr>
<td>Asia</td>
<td>303</td>
<td>3.43</td>
<td>7.08</td>
</tr>
<tr>
<td>Latin America</td>
<td>137</td>
<td>4.84</td>
<td>10.53</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Management Area</th>
<th>Number of Funds</th>
<th>Three-year Returns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>100</td>
<td>19.87</td>
</tr>
<tr>
<td>Asia</td>
<td>191</td>
<td>25.38</td>
</tr>
<tr>
<td>Latin America</td>
<td>55</td>
<td>17.57</td>
</tr>
</tbody>
</table>

Note: Cumulative returns.

Source: Micropal Emerging Markets Fund Monitor (Micropal); IFC.
managers, managers with Asian emerging market mandates, and managers with Latin American mandates. The one-year and three-year cumulative data are inconclusive. The average active manager is doing better or worse depending on how you slice the asset class. Returns for the five-year period ending December 1996, shown in Figure 4, reflect small performance differences between the average global manager performance and the indexes, although the indexes are ahead.

Table 3 compares the performances of the InterSec median, not average, emerging market manager, the IFCI, and the EMF for one year and three years. Again, one-year data are not conclusive, although the median active manager beat both indexes. For three years, median performance is very close to the indexes.

Another universe, compiled by Frank Russell Company, is illustrated in Figure 5. This performance universe shows that the annualized median three-year rate of return is below the two major benchmarks. These data also highlight the large variance between managers in different quartiles and thus highlight the active risk plan sponsors might bear in addition to the risks inherent in the emerging market asset class. Investors also need to remember that most active managers’ performance is reported before fees; fees for active management in the emerging markets start above 100 basis points (bps), and although they move down the scale relatively rapidly for large institutions, they remain much higher than in developed markets. Thus, when fees are deducted, the median manager, and certainly the overall average universe of active managers, is doing worse than the market.

Clients want consistent performance from active managers, and judging consistency requires examination of the performance of specific investment firms rather than the average or the median. Table 4 reports the one-year and three-year cumulative performance of some of the biggest names in active emerging market management. Some of them are handily beating the benchmark over three years and some are not. For the five years ending December 1996, the cumulative performance numbers (rounded) are 119 percent for Manager S, 64 percent for Manager T, 101 percent for Manager C, 49 percent for Manager F, and 47 percent for Manager E. The IFCI Composite during that five-year period returned about 64 percent, and the sector average was 59 percent.

Figure 4. Performance of Average Micropal Active Emerging Market Manager versus IFCI Composite and EMF for Five-Year Period Ending December 31, 1996

![Figure 4. Performance of Average Micropal Active Emerging Market Manager versus IFCI Composite and EMF for Five-Year Period Ending December 31, 1996]

Notes: The manager pool is open- and closed-end global emerging market funds, before some fees. Sources: Micropal; IFC; MSCI.
Clearly, certain active managers can consistently beat the benchmarks. The questions for investors are: Can you pick that manager? And more importantly, will that manager produce those returns in the future, particularly as it gains assets? Manager C, for example, which has produced extraordinary returns for a long period, has more than US$10 billion in dedicated emerging market assets under management. Will this firm be able to continue to produce that performance? Should a plan sponsor be willing to bet on that outcome? These issues are at the core of why indexing makes some sense for emerging markets.

Table 5 shows that, in general, beating the benchmark, at least the international benchmarks, is not easy even within countries. One reason relates to the structure of these markets. The security concentrations in emerging markets are very high. The top 10 stocks by market capitalization are often 50 percent, and sometimes even more, of market capitalization. In addition, the country factor dominates returns in emerging markets.
Table 4. Performance of Major Institutional Fund Managers versus IFCI Composite as of September 1996

<table>
<thead>
<tr>
<th>Manager/Universe or Index</th>
<th>One Year</th>
<th>Three Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of funds</td>
<td>268</td>
<td>100</td>
</tr>
<tr>
<td>M</td>
<td>6.59%</td>
<td>29.33%</td>
</tr>
<tr>
<td>S</td>
<td>11.00%</td>
<td>43.37%</td>
</tr>
<tr>
<td>T</td>
<td>8.31%</td>
<td>13.51%</td>
</tr>
<tr>
<td>GE</td>
<td>16.08%</td>
<td>20.63%</td>
</tr>
<tr>
<td>C</td>
<td>8.74%</td>
<td>28.97%</td>
</tr>
<tr>
<td>J</td>
<td>4.59%</td>
<td>—</td>
</tr>
<tr>
<td>F</td>
<td>6.16%</td>
<td>16.12%</td>
</tr>
<tr>
<td>E</td>
<td>-4.08%</td>
<td>15.05%</td>
</tr>
<tr>
<td>GO</td>
<td>3.94%</td>
<td>—</td>
</tr>
<tr>
<td>P</td>
<td>-3.20%</td>
<td>6.37%</td>
</tr>
<tr>
<td>Universe average</td>
<td>7.23%</td>
<td>19.87%</td>
</tr>
<tr>
<td>IFCI Composite</td>
<td>8.66%</td>
<td>19.53%</td>
</tr>
</tbody>
</table>

Note: Cumulative returns.
Sources: Micropal; IFC.

Table 5. Single-Country Emerging Market Funds versus IFCI Country Returns

<table>
<thead>
<tr>
<th>Country</th>
<th>One Year (7/95–6/96)</th>
<th>Three Years (7/93–6/96)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Return</td>
</tr>
<tr>
<td>Argentina</td>
<td>7</td>
<td>30.45%</td>
</tr>
<tr>
<td>Brazil</td>
<td>47</td>
<td>29.35%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>26</td>
<td>5.80%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>18</td>
<td>1.08%</td>
</tr>
<tr>
<td>Mexico</td>
<td>12</td>
<td>16.67%</td>
</tr>
<tr>
<td>South Korea</td>
<td>76</td>
<td>-9.29%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>48</td>
<td>1.65%</td>
</tr>
<tr>
<td>Thailand</td>
<td>47</td>
<td>-8.60%</td>
</tr>
</tbody>
</table>

Sources: Micropal, August 1996; IFC.

Figure 6. Influence of Factors in Returns of Developed and Emerging Markets, December 1994

Source: BARRA data.
Using the BARRA model, Figure 6 compares the return factors significant to the returns in emerging markets with those that are significant in developed markets as of December 1994. The factors are almost a mirror image. In emerging markets, the country factor dominates; in developed markets, the country factor drops drastically in importance as stock-specific factors and industry factors explain more of the returns. Because the country factor dominates in emerging markets, investors would do well to pursue broad exposure within the countries or, depending on the investor’s objectives, implement top-down asset allocation country by country.

**Advantages of Index Strategies for Institutional Investors**

Application of index-based strategies in emerging markets can provide investors with broad diversification, minimal transaction costs, reduced management fees, and consistent long-term returns in line with the asset class—all of which lead to a very compelling bottom line: efficient, low-cost core exposure to emerging markets.

**Diversification**

The prime advantage of an index-based strategy for emerging markets is broad diversification across and within markets. Indexing is an efficient way to gain deep exposure within 20 or more emerging markets. The portfolios of many active managers look very similar to each other and often comprise the largest blue chip stocks in each market: the cement company, the telecommunications company, some other utilities, and one or two companies in whatever industry that country has a comparative advantage. Index portfolios go much deeper into the markets. They may still be concentrated in whatever industry groups dominate that country’s market, but the diversity of securities is broad. The number of stocks BGI holds in our index portfolios, for example, is significantly larger than the average holdings of active emerging market managers. We do not always buy every stock in the index, but whenever possible and cost-effective, we buy most of the stocks, not simply the top five names or the blue chip stocks.

**Minimal Costs and Fees**

Few things are certain in emerging markets, but high transaction costs are. Broadly defined, transaction costs are much higher than in developed markets; they average three times those of developed international markets. In the uncertain return environment characteristic of emerging markets, a reduction in explicit trading costs through pursuit of efficient trading and low turnover will, by definition, lower transaction costs. Add to this approach the ability to cross-trade between portfolios and the lower management fees incurred through indexing, and the result is to put the index investor significantly ahead of the game in relation to the active investor.

**Table 6. Active versus Passive Management Expenses**

<table>
<thead>
<tr>
<th>Expense</th>
<th>Active</th>
<th>Passive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Custody fees</td>
<td>0.27%</td>
<td>0.24%</td>
</tr>
<tr>
<td>Management fees</td>
<td>1.00</td>
<td>0.35</td>
</tr>
<tr>
<td>Commissions/fees</td>
<td>1.35</td>
<td>0.72</td>
</tr>
<tr>
<td>Market impact</td>
<td>2.29</td>
<td>0.94</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4.91</strong></td>
<td><strong>2.35</strong></td>
</tr>
</tbody>
</table>

*Note: Calculations assume 50 percent turnover a year for active management and 15 percent turnover a year for passive management.*

*Source: IFC survey of brokers and fund managers, June 1996.*
the market, and they can use a number of trading techniques to attenuate market impact. Furthermore, crossing trades, either at the unit level or the security level, has no market impact.

**Consistent Returns in Line with the Asset Class**

The delivery of consistent performance is one of indexing’s greatest attributes. Suppose a plan sponsor has performed an asset allocation study and is determined to put 4–6 percent of a plan’s assets into emerging markets. Using index-based strategies will assure that the portfolio reflects performance of the emerging market asset class for that percentage, and an index portfolio enables a plan sponsor to be fully invested. Plan sponsors, who are generally putting only a small percentage of fund assets into emerging markets, might not want a slice of that relatively small percentage to be in cash and should not pay 80–100 bps in management fees on cash when that cash is not going to have much effect at the plan level. In addition, large index fund managers are often able to partially cross new clients into their emerging market positions, which can greatly reduce the cost of getting emerging market exposure.

**Integrating Index-Based Strategies in Emerging Markets**

Indexing and active management are not mutually exclusive; indexing can be complementary to active management. An index or index-based approach can provide the efficient, low-cost core exposure as the entry point or anchor for an emerging market portfolio. Around this core, the manager or investor can

- tilt by region,
- use active managers that are expected to add value through stock selection, whether broadly defined or, perhaps, confined to small-cap stocks,
- add private equity in emerging markets,
- add managers that specialize in “frontier” markets,
- add a hedge fund vehicle that follows a long/short or market-neutral strategy.

Furthermore, in emerging markets, indexing is anything but passive. Index-based investment strategies are as diverse as those available for developed markets.

**Alternative Weights and Quantitative Approaches**

Market-capitalization weighting, the approach of all the major commercial index providers, is only the starting point for emerging market investment strategies, even a strategy based on an index. For example, most of BGI’s clients are using alternative benchmarks. We work closely with them to structure solutions to their particular needs. We have developed equal-weighted strategies; strategies using benchmarks with two- or three-tier weighting, GDP weighting, value-traded or liquidity weighting, or customized weighting; single-country or single-region approaches; and most recently, active/passive strategies. Index portfolios are relatively easy to mold to a client’s existing emerging market exposure or global portfolio characteristics. Clients can even specify that they do not want market-cap weighting but do want broad exposure. For example, if they are willing to take 3 percent tracking risk against the benchmark while still matching market exposure, we can tailor a solution.

Indexing in emerging markets is somewhat controversial and is counterintuitive to many in the investment community. Indexing is in its infancy, but it has come a long way; Table 7, which starts one year after the introduction of the IFCI Index, shows that as of mid-1996, about US$10 billion was under management by index/quantitative techniques, which is less than 5 percent of assets invested by foreigners into emerging markets. I believe it is reasonable to predict that emerging market
Investing Worldwide VIII: Developments in Global Portfolio Management

assets being indexed or using index-type structures will grow to 10 percent by the end of this decade.

Management of Emerging Market Index Portfolios

Putting money to work in emerging markets, whether actively managed or index based, is a significant challenge, but index managers face some of the greatest challenges. They must match the benchmark every day, and any errors are more transparent than those in active management. Implementation must deal with foreign ownership and other restrictions, liquidity, taxes, settlement, and high transaction costs in an environment of tracking a cost-free, frictionless index.

- **Investment problems.** The first and trickiest problem is the issue of foreign ownership restrictions, which creates diverse problems in different countries. South Korea, which has a very opaque OTC market for foreign shares, presents particular difficulties. Gray market premiums on Korean stocks can reach 60 percent or more; we do not blindly buy a stock if it has that kind of premium, even if it is part of the index. We look at the trade-offs between the guaranteed tracking error if we do not buy, buying something at a premium, and the tracking error of buying a stock substitute. Indonesia and Thailand have “alien” boards, on which the pricing is different from the local boards. The index providers for the most part use the local prices and do not quote the alien board prices because the alien board prices are often ratcheted up by locals who know foreigners are going to be forced to use it, so the pricing is not consistent. MSCI and the FT/S&P-AWI have added a foreign premium factor into their indexes, but such adjustments do not fully alleviate tracking problems in Indonesia and Thailand.

Taiwan and South Korea also have limits on the percentage of local equities that can be held by foreigners. So, as with an elevator, only so many people can be in and if an investor is not in on the allocation, that investor will have to pay a higher price. Indonesia, Thailand, Malaysia, China, and India also have restrictions on foreign ownership.

Chile has specific restrictions on repatriation of capital gains that limit a manager’s ability to adjust client asset allocations. Therefore, we primarily rely on American Depositary Receipts to get exposure in Chile. If we need to reduce Chilean exposure, ADRs allow us to do it quickly.

Liquidity can be a major issue for foreign investors. Many stocks in emerging markets trade essentially “by appointment,” and a manager must be careful with whom the appointment is made because they may not show up or, worse, they may jack the price up.

Both dividend withholding tax and capital gains tax are issues. India, for example, has high taxes, and the mechanisms for the tax treatment of foreign investors are different from those used for local investors. Some investment vehicles are tax efficient and some are not, and some of the tax-efficient vehicles are not appropriate for ERISA investors. Thus, managers have to work their way through these issues to develop optimal vehicles for their clients.

Settlement failures are another pitfall
in emerging market investment implementation, and BGI follows a number of procedures to avoid them. The simple issues of settlement mismatches and timing present numerous difficulties. In emerging markets, the settlement period ranges from one day before to five days after trade date, and in South Africa that \( t + 5 \) day can only be on a Tuesday. When managers are moving assets around, they have to make sure they will have the right cash amounts for the exchanges when they settle.

The simple costs of custody movement and market impact create worse problems in some markets than in others, but in almost every case, these costs are much higher in emerging markets than in developed markets. Therefore, any efforts that managers can make to reduce the costs is value added for the client.

Figure 7 provides some recent estimates of trading costs in the larger emerging markets. The average trading cost in emerging markets is about three times that of EAFE countries and about five times that of the United States. It is that hurdle that all managers have to deal with, and index-based approaches are more effective at minimizing those costs.

**Solutions and tactics.** How one actually gets exposure in emerging markets in an index-based strategy is not passive. At BGI, we look at three dimensions of investment management performance—returns, risks, and costs. The foremost objective is getting the returns of the markets and the asset class, but managing costs is also important. Portfolios should also be structured in ways that reduce the risk inherent in the indexes by using appropriate country allocations and

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**Figure 7. One-Way Trading Costs in Emerging Markets: Commissions, Bid–Offer Spreads (Halved), Fees, and Taxes**

<table>
<thead>
<tr>
<th>Country</th>
<th>Cost (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>2.50</td>
</tr>
<tr>
<td>Peru</td>
<td>2.40</td>
</tr>
<tr>
<td>Argentina</td>
<td>1.70</td>
</tr>
<tr>
<td>Venezuela</td>
<td>1.70</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1.65</td>
</tr>
<tr>
<td>Hungary</td>
<td>1.59</td>
</tr>
<tr>
<td>Brazil</td>
<td>1.57</td>
</tr>
<tr>
<td>Philippines</td>
<td>1.50</td>
</tr>
<tr>
<td>Portugal</td>
<td>1.47</td>
</tr>
<tr>
<td>Greece</td>
<td>1.45</td>
</tr>
<tr>
<td>Mexico</td>
<td>1.40</td>
</tr>
<tr>
<td>Turkey</td>
<td>1.40</td>
</tr>
<tr>
<td>Thailand</td>
<td>1.20</td>
</tr>
<tr>
<td>South Korea</td>
<td>1.15</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1.11</td>
</tr>
<tr>
<td>Poland</td>
<td>1.00</td>
</tr>
<tr>
<td>South Africa</td>
<td>0.85</td>
</tr>
<tr>
<td>Average</td>
<td>1.51</td>
</tr>
<tr>
<td>EAFE</td>
<td>0.65</td>
</tr>
<tr>
<td>United States</td>
<td>0.30</td>
</tr>
</tbody>
</table>

\(^a\)ADRs: Chile, 0.55 percent; Venezuela, 0.70 percent.

*Sources: IFC EMDB survey of brokers and fund managers, June 1996; BGI survey of international broker trading desks, January 1997.*
delivering accurate tracking of the benchmarks.

Figure 8 shows the variety of instruments available to get returns in emerging markets. Our preference is always to buy the local market, but if that approach is not the most efficient and effective way, we will consider ADRs and Global Depositary Receipts (GDRs). The reason may not be simply trading costs; investment restrictions, as in Chile, may also be a concern.

The use of equity swaps is not attractive currently, but we are constantly assessing the development of that market. Liquidity in emerging market swaps is growing, and when we, and more importantly our clients, are comfortable with it, we hope to use equity swaps. The swap markets are gradually becoming more liquid, and most importantly, more fairly priced. The development of listed futures, options, and other derivatives in emerging markets will also improve the pricing transparency of swaps. Convertible securities in emerging markets can also be an effective way to get exposure to stocks. In South Korea, for example, opportunities usually arise that help to both get around the foreign premium and get exposure to the market.

We use country funds opportunistically for some very difficult markets, and some managers have used vehicles that I call “insects.” This generic term refers to listed and tradable index funds known as WEBS—or World Equity Benchmark Shares—which track individual MSCI country indexes and trade on the American Stock Exchange. These instruments offer an efficient way for small managers to get exposure to such emerging markets as Malaysia and Mexico. BGI is not using emerging market stock index futures and options at the moment, but these products are rapidly developing, and we intend to be in the forefront of their use when their liquidity and regulatory status improve.

A number of emerging markets already have listed equity derivative markets. Some futures and options traded on exchanges in developed markets are based on emerging market indexes, such as those of Mexico, Taiwan, Israel, Hungary, the Czech Republic, Poland, Slovakia, and China. One can trade futures on the Mexican stock index on the Chicago Mercantile Exchange. The Singapore International Monetary Exchange has launched a Taiwanese

\[
\text{Figure 8. Advanced Investment Management Techniques in Emerging Markets}
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<table>
<thead>
<tr>
<th>Risk Management</th>
<th>Return in Line with Asset Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emerging Market Returns</td>
<td>Alternative Weighting Strategies</td>
</tr>
<tr>
<td>Cost Management</td>
<td>Internal Crossing Trading Tactics</td>
</tr>
<tr>
<td></td>
<td>Securities Lending</td>
</tr>
<tr>
<td></td>
<td>Stock Purchase (Local Market)</td>
</tr>
<tr>
<td></td>
<td>ADR or GDR Purchase (Foreign Market)</td>
</tr>
<tr>
<td></td>
<td>Equity Swaps</td>
</tr>
<tr>
<td></td>
<td>Convertibles</td>
</tr>
<tr>
<td></td>
<td>Country Funds and Insects</td>
</tr>
<tr>
<td></td>
<td>Stock Index Futures/Options</td>
</tr>
</tbody>
</table>
stock index future that is reasonably liquid and has already developed strong institutional use. This contract is especially useful in light of Taiwan’s current restrictions on foreign short sales in the cash market and the country’s day $t - 1$ settlement environment.

Some stock index futures and options are trading within emerging markets. This development is bringing down the cost of swaps because swap intermediaries can price swaps and then lay off the risk in the domestic markets. Brazil and South Africa have very liquid stock index futures, but they are not yet approved for U.S. investors’ use. Malaysia’s futures and options exchange has gotten off to a slow start, but it will probably ultimately succeed. Israel has a liquid stock options market. Hungary already has a somewhat liquid stock index futures market. Korea has decided to replicate some of the dysfunctionality of its equity market in the futures market and has a futures market that is highly impractical for foreign investors.

As far as managing the high costs in emerging markets, internal crossing is one of the most powerful ways to provide value to investors. When different clients have different country allocations, instead of trading the positions in the markets, whenever possible we cross internally. BGI has the industry’s largest internal crossing network, and we have added much value for our clients through this capability.

Crossing creates an internal market, which allows a manager to virtually eliminate trading costs. Table 8 shows what BGI has been able to provide for our developed market investors in their EAFE portfolios in 1996 and what we achieved during the same period in our emerging market strategies. The table gives the percentage of total trades that were crossed. The reason the net buy numbers are lower in both markets is because U.S. institutional investors (ERISA-qualified plans) are still very much net investors into developed and emerging markets. Lining up a buy to cross in is much easier for us if we have an investor who is exiting. The data on active versus passive management given in Table 6 gave an idea of the power of crossing: Considering trading costs, crossing about one-third of net inflows allows us to eliminate about one-third of trading and market impact costs. Slowly, over time, we will be able to bring down trading costs and raise net returns close to the index numbers. This advantage in trading and managing emerging market portfolios will become even more sophisticated and compelling in the future.

Finally, as the bottom diagram in Figure 8 shows, where we cannot cross, we put the trading expertise of a large and sophisticated trading desk behind us and then, over time, add securities-lending revenue. Securities lending is just beginning in emerging markets. As spreads have come down in developed markets, this market has been growing. Securities lending will be a valuable, secure method to add returns to investment portfolios as the futures and options markets in emerging markets mature.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Non-U.S. Developed Market Index Funds</th>
<th>Emerging Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net buys</td>
<td>45.40</td>
<td>36.30</td>
</tr>
<tr>
<td>Net sells</td>
<td>99.00</td>
<td>81.47</td>
</tr>
</tbody>
</table>

Note: Total percentage crossed includes unit-level crosses and security crosses.
Clearly, as this discussion has stressed, indexing in emerging markets is anything but passive. A manager must take distinct approaches to different markets. In our S&P 500 Index portfolios and, for the most part, in our EAFE portfolios, we aim for full replication of the indexes because that approach produces the least amount of tracking error. In emerging markets, however, we pursue a variety of approaches and implement whichever is most practical—optimized techniques, sampling techniques, or full replication, as appropriate for each market. Eventually, the techniques and the technology of developed markets will prevail in emerging markets. This trend will bring benefits for all investors, active or index based.

The growth of indexing in emerging markets is helping increase investors' focus on the three dimensions of investment management performance. Performance is more than absolute return; managers and their clients should look at the risks in their exposures and concentrations in stocks and, of course, the costs of initial and ongoing investment. Emerging markets are somewhat like rapidly growing children or adolescents: One certainly cannot always predict their behavior (returns), but one can and should control some of the risks and much of the costs.

**The Transformation of Emerging Markets**

I will close with several broad themes I foresee evolving in the next several years. Emerging markets will remain a compelling asset class. Developing countries’ equities are not a fad, and these markets are now too big to ignore. The emerging markets were less than 2 percent of world market capitalization 10 years ago; now, they are about 11 percent of world market cap and 20 percent of world GDP, and their populations comprise more than 80 percent of world population. Moreover, the trend is for the emerging market universe to continue expanding—to include markets that a few years ago would cause laughter if someone suggested investing in them. For example, even as recently as 1994, it would have been difficult to envision the phenomenal rise of the Russian equity market in 1996 and 1997.

The rigorous use of benchmarks for emerging markets should greatly improve the transparency of all managed portfolios and improve investors' understanding of the risks and rewards in emerging markets. The growth of indexing will continue—and likely accelerate—and it should have an important impact on lowering trading costs and management fees. Techniques that build on indexing and apply active ideas in a systematic, quantitative way are already being used in the emerging markets, and this trend is likely to accelerate.

In many ways, one could say the traditional approach to investing in emerging markets is over—the game of going out into unexplored markets, setting up camp, talking to the friendly local brokers, and getting invested before everyone else gets in. As emerging markets become increasingly integrated into global equity markets, the investment management techniques prevalent in developed markets will proliferate—and eventually prevail. The science and art of structured investing is just beginning in emerging markets, and it will dramatically transform them into more-efficient capital markets.
Political Analysis for Investing in the Emerging Asian Markets

Robert Lloyd George
Chairman and Chief Executive Officer
Lloyd George Management Limited

Asia continues to be the most rapidly growing region in the world, but political risk analysis continues to be critical for stock pickers in the emerging Asian markets. That analysis should take a historical perspective and should encompass culture, money flows, savings rates, and inflation. History shows the sharp effect of some single critical events on Asian markets, so one vital task of investors is to distinguish political events that will have long-term consequences from events of little importance.

But nothing of [the conflicts of British party politics] counted much against the great movements in history. None of our struggles mattered much, wars or revolutions or what you will, as compared with the sheer biological and geographical facts. Whatever happened, in two hundred years, perhaps sooner, the balance of the world would have changed.

—David Lloyd George as quoted by C.P. Snow in Variety of Men.

In the 20th century, the balance of the world has changed several times, and it has already changed again from the post-World War II balance. Consider the following facts: 61 percent of the world’s population is in Asia, but only about 26 percent of the world economy is in Asia. Japan by itself represents 17 percent of the world economy; India and China together are about 4 percent, and the rest of Asia represents only about 5 percent. Few analysts doubt that the 26 percent will rise in the next generation to 40 or 50 percent. Real GDP growth and, more importantly, the growth of per capita income and the growth of the middle class that underlies the political stability and the economic potential of these countries is very encouraging. Compared with Organization for Economic Cooperation and Development countries, Asia is the place to be in the future.

But investing in Asia requires some special skills.

John Templeton has said that social awareness and political awareness are key attributes of an investor. This principle can be taken a step farther by becoming aware of the historical experience of investors in each Asian country; the proper analysis of risk and reward depends on a knowledge of past events. The national response to foreign traders and foreign investors in China during the past 50–100 years, for example, provides a good guide to how China will respond in the future.

This presentation reviews the critical elements of political analysis and summarizes the current political environment for several interesting markets from an investment manager’s perspective.
Elements of Political Analysis

Political analysis is a necessary part of the investment manager’s task in any market, but it is especially important in emerging markets, where political systems may be immature and volatile.

Critical Events

In political analysis, an important aspect is to distinguish the times when politics matters to investors and the times when it is irrelevant. Analysts need to ask themselves whether the big picture is changing or whether a change of government is irrelevant because the same economic policy will continue.

About 10 years ago, I received a telephone call at 1:00 a.m. Hong Kong time from George Soros. He said, “Robert, have you noticed the Politburo changes in Hanoi?” I tried to wake up fast, but I had to confess that I had not. His next words were, “Start buying shares in Bangkok.” As the great chess player and geopolitical strategist that he is, he was two or three moves and at least 12 months ahead of the crowd in identifying the shift in policy from military adventurism to economic reconstruction in Vietnam that would lead to a withdrawal from Cambodia and a significant improvement in the way U.S. investors perceived the political risk of investing in Thailand. Within the next 12 months, Thailand did indeed become established as a stock market for international investors.

Culture

The historic hand-over of Hong Kong to China on June 30, 1997, is the most well-anticipated, well-advertised event of the century and should not provide many unanticipated surprises. Responses to the hand-over, however, may not be entirely rational. What investors should keep in mind about 1997 is that it is not 1949. The world has changed; China has changed. Communism is no longer in the ascendancy but is rapidly declining as an ideology. Privatization, not nationalization, is now the successful policy of governments worldwide. Human nature and the fears and responses of people, however, change slowly. The psychology of individuals in the Hong Kong business community is still greatly colored by the experiences of a generation ago in Shanghai. Knowledge of such history and psychology is important to investors, particularly in terms of stock selection. For example, the family who controlled Hong Kong Land through Jardine Matheson had all their assets expropriated in 1950 in Shanghai, despite the promises that had been made beforehand. I believe that event is still seared in their corporate memory, and therefore, they expect some Chinese takeovers of British-owned assets.

In the Asian context, investors and managers need to understand how much political analysis shades into cultural, social, and economic analysis. Japan is a perfect example. The bull market of the 1980s in Japan went on for far longer than most foreign managers expected. P/E multiples rose far higher than expected because of cultural factors involving land values, equity cross-holdings, and political factors. The bear market of the 1990s is also confounding foreign forecasters, who every year expect a recovery, because of these same stubborn political and social factors. Japan seems curiously helpless and unable to make decisions in the face of the continuing banking and real estate problems. The rigidity of the labor market and the habits of lifetime employment have made rationalization among large Japanese corporations much more painful and drawn out than in the West. South Korea, which shares many of these Confucian characteristics with Japan, shares many of the same problems.

What the West so admired on the upside of Asian society—social discipline, manufacturing excellence, long-term corporate planning rather than short-term earnings targets, social and political stability under a virtual one-
party state—has come back to haunt everyone on the downside. I do not believe investors should be bearish on Asia, but the Asian societies are having problems adjusting. Few Asian societies have the flexibility that the United States has demonstrated in the past decade.

Unparalleled speed of economic growth and social change in South Korea may be the reason that market is now experiencing problems. The growth resulted in an economy overburdened with debt and with wage increases that outstripped productivity. Political analysis of Korea is difficult, primarily because the country is so unpredictable. All investors and managers were confounded by the weakness of the Korean market in 1996; I do not know of a single foreign fund manager who got Korea right that year. At the beginning of the year, we were anticipating 30 percent earnings growth; the actual figure for corporate profits at the end of the year was –30 percent. Such a complete about-face is highly unusual in Asia, and now investors are responding with deep disillusionment and distrust to the forecasts that Korean companies will recover. For a contrarian, of course, the opportunity is interesting. The current situation appears to be very high risk because of uncertainty in North Korea, but if North Korea collapses peacefully, the result could be a strong bull market in Seoul.

Capital Flows

In southeast Asia, one of the rules I have followed in the past 15 years is to follow the smart money—in general, that is, where the overseas Chinese businesses are themselves investing, whether in real estate or in manufacturing plants. Figure 1 shows the capital flows among the United States, Japan, and the rest of Asia; note in particular that the money earned in Asia from exports to the United States—the trade surplus with the United States—is not recycled into U.S. Treasury bonds as the Japanese surplus is. It is reinvested in Asia. This money is coming from the overseas Chinese, who are the major investors in Asia. The tremendous rise in foreign direct investment, US$100 billion out of the US$300 billion net total global worldwide FDI, is accounted for by Hong Kong, Taiwan, and overseas Chinese investors. Indeed, 80 percent of all the money that has gone into China in the past decade has come from overseas Chinese sources.

Tracking the FDI capital flows is important for identifying portfolio investment

Figure 1. Trade and Capital Flows among the United States, Japan, and the Rest of Asia, 1995 (billions)

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>Net Trade Payments Surplus: US$70</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Asia</td>
<td>United States</td>
</tr>
<tr>
<td>Capital Recycling: US$12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Net Trade Payments: US$75

Source: Data from the World Bank.
opportunities. Thailand in the mid-1980s also experienced a boom based on foreign investment, which was coming from Japan as well as Taiwan and Hong Kong. In Thailand, political analysis seemed for a long time to be relatively simple. The king represented the ultimate guarantee of stability; a military coup d’état occurred every year or two, and prime ministers and governments changed constantly, but the growth rate of the country continued at almost 10 percent every year for a decade. The economic policy continued to be friendly and fair to foreign investors. History again supplies some background necessary for understanding these markets. Thailand has dealt so much more wisely and successfully with foreign investors than either of its neighbors, Burma and Vietnam, which were colonized in the 19th century and, therefore, have more-difficult relationships today with foreign investors. Thailand has always been a successfully run economy and presented a stable political situation. The Thais have an excellent civil service closely modeled on the Japanese Ministry of International Trade and Industry, and they have always been willing to recognize the need for foreign capital and technology.

Today, however, Bangkok has become a victim of its own success. The infrastructure has not kept up with the rate of growth, and the economic boom is causing tremendous bottlenecks. So, the smart Chinese money today is targeting other places—the Philippines and, to a slight extent, Myanmar (Burma). A lot of it is going to Sydney, London, and Vancouver, which may be revealing.

Note that, although the cultural tendency in Thailand toward a laissez-faire market policy is the opposite of the rigid central planning that has been common in Korea, the end result has been the same. The political crisis that has embroiled Thailand in the past two years came from the same Asian cultural traits at work in Korea and Japan—the seeking of social and political consensus—and the same social habits of awarding favors and giving gifts. The results have been widespread corruption and an inability to make key decisions. The political situation has put enormous pressure on the currency and the stock market. As in Japan, what appeared in the past to be the strong elements of the system—for example, the central bank’s rigid adherence to maintaining the baht against the currency basket—have become leading factors in Thailand’s economic crisis today. Because of the very strength of Thailand’s foreign reserves and its past economic success, Thailand’s current-account deficit has widened, the U.S. dollar loans taken out by Thai companies have increased rapidly, and instead of a once-and-for-all Mexican-style devaluation, Thailand is likely to experience an ongoing “crisis,” with high interest rates and economic stagnation.

**Savings Rate**

A major driver of growth in Asia has been the countries’ high savings rates, as Figure 2 shows. For example, although Singapore’s Lee Kuan Yew has been widely criticized by Western academics, nobody can deny the extraordinary success that Singapore’s economy has enjoyed in the past 30 years under one-party rule. Political and social stability have been the foundation of this success, and in addition to the investment in human capital, fiscal conservatism has been important to this success. Indeed, throughout Asia, the importance of savings rates in promoting economic development is obvious.

At almost 50 percent, Singapore leads in savings rate as a percentage of GDP, and the reason is its Central Provident Fund, which effectively creates a mandatory savings rate of more than 40 percent. To this farsighted policy of mandated savings, Singapore owes its outstanding road network, splendid airport, and fine housing developments.
Few political analysts would have expected this result from the early manifesto from Lee Kuan Yew’s People’s Action Party.

Behind the savings figures shown in Figure 2 may be an important trait of the overseas Chinese communities in all these countries. There are no welfare states in Asia, and therefore, the Chinese family, on average, saves 30 percent of its income to provide for old age, sickness, unemployment, and education of children. These tremendous savings surpluses and the financial strength underlying these countries are a continuing important foundation for the future development of the capital markets in Asia. In the years ahead, if the Chinese domestic savings rate continues at the level of the other Asian countries, that trend is a positive indicator of the future growth of China. The Philippines, which Figure 2 shows lagging behind for so long in economic growth rate, is now moving up to a 6–8 percent rate, and its savings rate also is rising toward the typical Asian average.

**Inflation**

A general point about political stability in Asia is the link of stability to low inflation. The importance of inflation for political stability is clear. In the case of the Philippines, when the inflation rate was 50 percent, Ferdinand Marcos was overthrown. In China in 1989, inflation rose to nearly 30 percent, and a political crisis took place that finished at Tiananmen Square. Similarly striking have been the results of the close link between inflation and stability in many other Asian countries. In Singapore and Japan, however, very low (even negative) inflation has been linked to very stable political situations. Table 1 shows inflation rates for the Asian markets in January 1997.

The tremendous success of Malaysia is perhaps even more surprising than the success of Singapore. As in Singapore, fiscal conservatism played a role in keeping inflation low in Malaysia. Malaysia’s success stems from the implementation, beginning in 1981, of the New Economic Policy, the brainchild of Mahathir Mohammad. In the course of a generation, he succeeded in transferring 30 percent of the wealth of the country from foreign and Chinese hands into those of the Bumiputra (Malay community), and

**Figure 2. Savings Rates in Asia and Nine Asian Countries Relative to Real GDP Growth**

Note: Rates are 1991–96 averages.
Source: Data from Global Information Services.
he achieved this success without the rise of political and social tensions that led to the struggle between Muslim Malays and ethnic Chinese in the 1950s and 1960s, the bloody riots, and the 22-month suspension of parliament in 1969. Malaysia has enjoyed a steady 8 percent GDP growth in the past 20 years.

Effects of Political Factors on Stock Markets

The Asian markets provide some specific examples of political factors affecting stock markets. The examples covered here involve Indonesia, Thailand, Taiwan, South Korea, and Hong Kong. Russia is another interesting place to invest now, so it is discussed briefly in this section. Finally, two countries that are not attractive—Vietnam and Myanmar—are noted.

Indonesia

The Jakarta Stock Exchange (JKSE) became truly established for foreign investors in 1989. At that time, most of the economic ministers and advisory group in Jakarta had been educated at the University of Chicago, rather like the case in Chile. These advisors persuaded President Suharto that the stock market could become a useful tool of national economic policy by attracting foreign capital and also by encouraging many of the wealthiest Chinese families in Indonesia to list their companies. The result was astonishing. The market grew from about a US$1 billion capitalization in 1988 to nearly US$20 billion in two to three years. Much of the huge wealth that many analysts knew was in Indonesia started to be reflected in its national capital market.

As with all these emerging markets, the Indonesian stock market has had its problems. For example, the market grew too fast and corrected quite dramatically in 1991. The JKSE’s performance was and still is very dependent on energy prices. Oil is, indeed, a more important factor in Indonesia than in other Asian countries; 40–50 percent of Indonesia’s export earnings come from oil and gas.

In Indonesia, analysts should weigh the political factor carefully. Many investment analysts today continue to be positive about the economic prospects and earnings prospects of companies listed on the JKSE, but Suharto’s age and health have become factors in the stock market’s performance. As in some other Asian countries, the influence of a single personality on the stability of the country is immense in Indonesia. Presidential elections will be held in 1998, and Suharto may well decide not to stand again, which will affect the stock market profoundly. No mechanism for succession exists, and no successor is marked out. A political crisis could, therefore, arise even before the end of 1997. I am not predicting a crisis such as the abortive Communist coup and military takeover by Suharto in the mid-1960s, because Indonesia has a growing middle class, but the transition after Suharto will be difficult, and political factors will weigh on the market.

<table>
<thead>
<tr>
<th>Country</th>
<th>Nominal Rate</th>
<th>Inflation Rate</th>
<th>Real Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>7.5%</td>
<td>5.0%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>5.6</td>
<td>5.2</td>
<td>0.4</td>
</tr>
<tr>
<td>India</td>
<td>10.1</td>
<td>6.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Indonesia</td>
<td>13.5</td>
<td>7.0</td>
<td>6.5</td>
</tr>
<tr>
<td>Korea</td>
<td>12.0</td>
<td>5.1</td>
<td>6.9</td>
</tr>
<tr>
<td>Malaysia</td>
<td>7.4</td>
<td>3.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>11.5</td>
<td>4.4</td>
<td>7.1</td>
</tr>
<tr>
<td>Singapore</td>
<td>3.2</td>
<td>1.5</td>
<td>1.7</td>
</tr>
<tr>
<td>Taiwan</td>
<td>5.3</td>
<td>3.8</td>
<td>1.5</td>
</tr>
<tr>
<td>Thailand</td>
<td>9.7</td>
<td>4.6</td>
<td>5.1</td>
</tr>
</tbody>
</table>
Thailand

The stock market in Thailand reflects the political situation in the country. The coup d’etat in February 1991 was interesting because it led to a strong rise in the market, which went up nearly 40 percent in the next four months. This reaction is in contrast to what happened in Manila in 1989, when a failed coup was followed by the market going down 50 percent because of political instability. With the successful coup in Thailand, political stability was not in question; the coup, in fact, removed a corrupt administration. Since then, the political situation in Thailand has changed. Today, the failure of successive administrations has led to a drop in political confidence, as well as the economic problems of a current-account deficit.

The situation in Thailand is serious and will take some time to resolve. Although value is beginning to emerge in stocks, particularly in the banking stocks and in the blue chips, such as Siam Cement, investors face the same question as they did with the Japanese banks: How long will it take the Thai banks to resolve what is a growing bad-debt, non-performing-loan situation? And as with Tokyo, it may take several years before Thailand emerges from this crisis and lending and economic growth resume the pattern of the last 10 years. Whether investors should buy Thai equities at what is apparently five or six times earnings today is questionable.

South Korea

The Korean stock market has given investors a ride similar to those in other Asian developing economies: a tremendous rise in the 1980s followed by a correction. In the early 1990s, the market was strongly affected by the surge in inflation and also by political factors. The arrest of the two ex-presidents, Roh Tae Woo and Chun Doo Hwan, in 1996 was a big shock to the market. A similar effect on the market occurred in the latter half of January 1997; the Hanbo scandal deeply affected confidence in the big Korean companies and in Korea’s political leadership.

Hong Kong

Hong Kong provides some of the most interesting and detailed examples of stock selection being influenced by political factors. A major shift has occurred in the Hong Kong market since the early 1980s. At that time, investors were concentrated on the old “Hongs”—Hong Kong Bank, Jardine Matheson,
Swire Pacific, Hong Kong Land, China Light and Power, and so on—British-controlled trading companies, banks, and utilities. Then, during the 1980s, a shift occurred toward the new Hong Kong/Chinese elite. The most prominent company, Cheng Kong, is controlled by Li Ka Shing, who in turn, controls Hutchinson, which together constitute a large percentage (almost 20 percent) of the Hong Kong stock market today. New World, Sun Hung Kai Properties, Henderson Land—all of these groups are controlled by the major Chinese billionaires in Hong Kong.

Since about 1992, a third group has taken over in long-term importance and significance: “red chip” companies under the control of mainland China. Initially, these stocks were mainly of manufacturing companies with operations in China, but they are increasingly trading and property groups with parent companies controlled by Beijing. The classic red chip is CITIC (China International Trust and Investment Corporation) Pacific, and it exemplifies the application of political analysis to specific stocks. CITIC was established when Deng Xiaoping came into power in 1979 by Rong Yi-ren, a close friend of Deng, and the company was in the unique position of reporting directly to the State Council. This unique political connection, what the Chinese call guang-xi, was a major reason behind the meteoric rise in the share price of CITIC after its Hong Kong subsidiary was listed in 1986. The chair’s son, Larry Yung, is now on the board of the Hong Kong Jockey Club, which is more important than it sounds, and is now perhaps the leading new mainland China tycoon in Hong Kong.

A political connection, however, can be a two-edged sword. Since the death of Deng Xiaoping, a shift is already occurring in who a company should be connected with and how to value that connection. Recently, the parent company of CITIC, the Chinese government, sold down its stake from 35 percent to 18 percent to allow Yung and his colleagues to acquire more shares. This somewhat questionable transaction had the effect of decreasing investor confidence in this stock; it fell nearly 20 percent. The way mainland China responds to shareholders is still fairly unsophisticated, which affects the ratings investors should give the red chip companies.

In addition, China obviously wants to control certain strategic industries in Hong Kong, and CITIC is a reflection of that stance. It has stakes in Cathay Pacific, the airline, and in Hong Kong Telecommunications, the telephone company; and it recently announced a major stake in China Light and Power, the electric utility. Another two industries China is likely to focus on are banking and the media. In analyzing their portfolio compositions in the next year or two, investors should think about these political factors: What does China want to control? Will China develop its control of the economy in Hong Kong by taking stakes through the stock market?

The long-term effect of China’s actions on Hong Kong stock performance is hard to discern. For example, at the time, Tiananmen Square affected Hong Kong investors deeply, with market values falling some 40 percent. But with time, the effect of Tiananmen Square is hardly apparent in the long-term Hang Seng Index performance. Although several months passed before people believed that business would go on as usual, it did, and this normalcy was followed by a long, long bull market that has pushed the Hang Seng Index from 2,000 to 13,000 in six to seven years. So, sentiment in Hong Kong has changed remarkably since Tiananmen Square.

The key to individual stocks in Hong Kong is property. The consensus in Hong Kong today is very bullish because people think that property can only go up so the stock market can only go up. However, although an enormous amount of money is coming into Hong Kong from China, the current level of
the property market will be difficult to sustain. The first measures the new government under Tung Chee-hwa takes may have to be to make property more affordable to the middle-class people in Hong Kong. The tycoons live extremely well, but the ordinary people in Hong Kong are having increasing difficulty finding affordable property to buy. Thus, the property market, the key influence on the Hong Kong stock market in the past 10 years, is subject to political considerations.

The future of the Hong Kong stock market will increasingly lie with the mainland companies. Some of the key China holdings, all those businesses in Shanghai that I noted for their political connections in China, also have favorable balance sheets, earnings, and credit ratings. The underlying businesses are showing strong growth, but the P/Es in some cases are reasonable. Shanghai Industrial, for example, which was listed in early 1996, has done extremely well and is in a strong position. Good economic and business reasons justify buying these stocks, and within the next five years, 50 percent of the Hong Kong market will probably be accounted for by China listings.

Russia
One of the potentially most lucrative areas to invest in, I believe, is Russia. Lloyd George Management hesitated a long time to invest in Russia because of the obvious political and market risks. We have just opened a fund, however, to invest in energy companies in Siberia. Companies that will supply the rapidly growing areas of Asia in the future are unquestionably undervalued assets at the moment. Moreover, a qualitative improvement in political risk has occurred in Russia as free markets have developed in the last two years. The free market is clearly in Russia to stay, so companies exploiting assets such as oil will increasingly rise toward the valuations typical of such companies elsewhere in the world.

Vietnam
Some fund management groups have bravely gone into Vietnam, but investments there are not easy to find.

Myanmar
Myanmar, the former Burma, has a stock exchange, but I see no political or economic basis for investing there. It has one of the least desirable political regimes in the region; no investor with any ethical principles would want to be associated with it, and doing business there would inevitably involve such an association.

Conclusion
Asia continues to be the number one growth region in the world, and the unleashing of capitalist energy in China allied with the powerful resources of the overseas Chinese is a secular phenomenon that will continue to dominate world trade for years to come. The long-term trend for investing in Asian developing markets is up. That is why buying opportunities occur whenever a major break in the trend occurs, as in Hong Kong in 1989 and, more recently, in Thailand and Korea. It is also why I recommend a contrarian approach to stocks.

The experience of investing in Asia leads to one key conclusion: Be well diversified. Events in these countries are highly unpredictable, as demonstrated by Tiananmen Square and crises in the Philippines and Thailand. For the long term, investors should strive for balanced portfolios in which Hong Kong would be slightly outweighed by the other three major markets—Singapore, Malaysia, and Thailand—as a group and which would have increasing portions of Taiwan and South Korea.
Change and the Next Emerging Markets
Marc Faber
Managing Director
Marc Faber Limited

Signs are that investors now inhabit a New Era of expanding economic opportunities, accelerated information transmission and economic development, and renascence of the capitalistic system. In a New Era, shifts occur in the centers of prosperity, consumption patterns change, and growth industries do not necessarily produce profitable stocks. While seeking the next emerging markets, investors need to remember that growth has drawbacks as well as benefits and that the history of foreign investments has not been rosy. Moreover, today’s slowdown in the growth of Asian developing economies may reflect a structural change that will necessitate greater investment selectivity than in the past decade.

The expression “punctuated equilibrium” is used in the natural sciences to describe how an established equilibrium is suddenly disturbed by a shock or a major event. Consider, for instance, the dinosaurs: They dominated the earth for approximately 500 million years, and then something happened (we do not know exactly what), and in a short period of time, they disappeared. Or consider an example from military warfare: Napoleon’s armies could move hardly any faster than Julius Caesar’s Legion approximately 2,000 years earlier; more likely, they were even slower because Roman roads had been superior. Then came the invention of the railroad, and within 60 years, an entire army could be shifted at about 60 miles per hour. That punctuation changed the entire art of war almost overnight.

In the last few years, I believe, the investment management world has been part of an environment of punctuated equilibrium. In politics, economics, and the social sphere, major changes have occurred in the world. Because of these changes, many people are referring to the present age as a New Era, and I agree. The changes are occurring in a variety of areas and for a variety of reasons. First, many formerly closed countries have opened because of the breakdown of the socialist/communist ideology or the abolition of policies of national self-reliance. As a result, the economic universe has expanded by about as much as it expanded at the end of the 15th century when the explorers opened up the Americas and the East Indies or by about as much as the world was enlarged by the entry of the U.S. economy into the global economy in the 19th century. If they have know-how or capital or special technologies, companies suddenly have many more business opportunities to capitalize on than previously.

Following the failure of communism
and socialism, the accepted doctrine is that the market economy and the capitalistic system are superior to anything else. Investment managers, then, would seem to be living in, in Voltaire’s words, the best of all possible worlds. The acceptance of free market doctrines and capitalistic systems has caused an eruption of new financial markets all over the world. Financial markets are growing rapidly, and whereas only 10–15 years ago capital was concentrated in national markets, capital can now flow from one corner of the world to another at the touch of a computer key.

The second area of major change today relates to the new technologies in communications, computing, and other spheres that have brought about an acceleration of information transmission. A hundred or so years ago, sending a letter from Asia to Europe took three months. Today, because of instant communication, a company that introduces an innovative new product may find that product can be copied, improved, and made obsolete within a year, sometimes within weeks. Technology transfer can occur almost overnight. As a result, new countries are opening up, industrializing, and emerging into the global economy at an unprecedented pace. Therefore, the pace of economic development has accelerated dramatically.

Of course, these changes have some drawbacks. On the ideological side is the issue of whether the market and the capitalistic system can fulfill everybody’s expectations in the future, especially in the emerging economies. Other issues relate to the drawbacks that come with growth—current problems that emerging economies, not in Asia alone but also in other regions of the world, are facing.

**Growth Issues**

When new eras are beginning, the growth of new industries, companies, and products is frequently underestimated and the supply is overestimated. For example, Ferdinand Foch, a professor at the Ecole Supérieure de Guerre in Paris before World War I, opined that “airplanes are an interesting toy but of no military value.” Tom Watson, Jr., then chair of IBM Corporation, said in 1943, “I think there is a world market for maybe five computers.” As late as 1977, Ken Olson, founder of Digital Equipment, said “There is no reason for any individual to have a computer in their home.”

On the other hand, whether relating to the weight of a white rat, or Spanish trade in the 16th century, or the horse-drawn vehicles industry, or railroads in the last century, growth always decelerates after a rapid growth acceleration period.

For investors, the issue of most importance is obviously timing—investing during the acceleration phase. Expectations are exceeded in the acceleration phase and tend to be disappointed during the growth deceleration phase. This pattern is also relevant to assessing political risk in the emerging economies, particularly some of the countries that are only now opening up. As long as people’s standards of living are improving and their expectations are being exceeded, social stability will prevail; if one day expectations are disappointed, the result may be tensions in the social sphere.

**Uncertain Stock Performance**

The performance of stocks does not necessarily mirror the growth curve of a country’s economy or of an industry. Early in the growth cycle, stocks tend to perform well. Later, even though the economy or industry may continue to grow for a number of years, the stocks, because of competition and sometimes regulation, may no longer perform well. The U.S. railroad industry is a good example. In recent years, citing how railroads improved productivity in the world in the 19th century has become fashionable. This claim is absolutely true, but the point is that railroad stocks peaked in the United States in 1854 to
1862 and performed rather badly thereafter; by 1893, 85 percent of all railroads in the United States were either bankrupt, in reorganization, or had to be refinanced. Even in the 20th century, although industrial stocks were rising between 1906 and 1921, railroad stocks performed poorly. Because of regulation, they could not increase rates sufficiently. By 1932, at the bottom of the market, railroad stocks were no higher than they had been about 100 years earlier.

Frequently, the industry that is growing the most, such as railroads in the last century, is not the best place for investors to put their money. For example, the primary beneficiaries of U.S. railroads were other industries, not the railroads. Railroads benefited the farmers in the Midwest and allowed the industrialization of the Great Lakes area because they enabled products to be shipped from the Midwest to the coastal areas for shipment abroad. Then came the automobile, and the railroad industry suffered. When people compare software and modern communications to railroads, they should think not only about the companies involved in the industry, which do not always make the money, but about the others that can use the new technology.

The automobile industry is another example of a growth industry that was not necessarily a profitable long-term investment. Around 1910, the automobile industry could be termed a growth industry. Car sales rose from 100,000 units in 1910 to about 4.4 million units in 1923. More than 100 car manufacturers were operating in the United States in 1910. The problem was that many of the companies were not particularly profitable. Many fell by the wayside—leaving the United States with the three car manufacturers of today.

An investor who recognized the growth potential of the automobile industry but realized that picking out the survivors would be a problem might have decided to invest in suppliers to the automobile industry. The obvious choice in those days was a rubber plant or rubber plantation, but this choice also was not good. Rubber prices peaked in 1908, and in spite of global car sales going from 100,000 units in 1910 to more than 45 million units today, the price of rubber never made a new high. Why? Supply was increasing continuously, new production methods for rubber allowed more efficiency, and prices never fully recovered. Those who bought rubber plantations in 1908 or 1912 had lost a lot of money by the time the Great Depression was in full swing, when the price had dropped by more than 90 percent.

**Shifting Centers of Prosperity**

In the New Era, in which technology can be transferred almost instantly, developing countries can join the industrialized process very rapidly. The result is tremendous shifts in the centers of prosperity. New cities are rising; old ones are decaying. New markets are emerging; some developed markets are suffering. New regions—Asia, parts of Latin America, and now also parts of Eastern Europe—are displacing older ones. Such changes are not new, but they are taking place much faster than previously. Of the 10 largest cities in the United States in 1850, seven—Baltimore, New Orleans, Cincinnati, St. Louis, Pittsburgh, Buffalo, and Cleveland—are no longer on the list of the 10 largest cities in the United States. Los Angeles was not on the list until about 1930; it is now the second largest city in the United States.

Asia will grow and Eastern Europe will grow, and some benefits will result, but each instance of a major punctuation in the equilibrium destroys some participants as wealth shifts to new centers. In Asia, the older, established centers of prosperity are growing at a much slower rate than the explosive rate of the new regions. For instance, previously, there were no links between the islands south of the Philippines—Mindanao, Sabah, Kalimantan, and the Celebes Islands—with Manado, which was the spice center in the 16th century. Now,
because of political developments, direct shipping and airline links exist. When such links are built, trade can immediately explode. Other growth areas are northeast of Myanmar (Burma), north of Laos, and northwest of Vietnam and the Guiyang Province of China. Because the borders have opened up, trade is growing tremendously. The area abounds with rapidly growing (and extremely sleazy) Wild West cities. Unfortunately, investing in that region is not possible unless you move there and establish yourself as a big-time smuggler or nightclub operator.

Another wildly growing area is the Yangtze River basin. When China began to open up in 1978, growth was concentrated in the Pearl River delta near Hong Kong. It later expanded to Guangdong Province, and growth has now moved up into the Shanghai–Tianjin corridor and the whole Yangtze River basin. That region is now growing above the national average, whereas the south is encountering a growth slowdown. Northern Asia offers another area of tremendous growth potential, with Japan and South Korea offering technologies, Asian Russia offering its resources, and China providing land and labor.

Changing Patterns of Consumption

Rising standards of living and the opening of countries to trade change consumption patterns. Figure 1 illustrates this phenomenon by showing the trends in spending for Hong Kong from 1975 through 1993. Note the decline in the percentage of consumption spent on food and the rise in percentage of consumption spent on consumer services. Spending on food is being replaced by discretionary spending on goods such as soft drinks, cigarettes, cosmetics, and cars, and on services such as financial services, credit cards, insurance, banking, and so forth.

The breakdown in communism has meant that this pattern is being repeated in the growth areas of Asia and Eastern Europe. As the many previously closed countries open up and grow, however, the noncommunist countries that were beneficiaries of communism (because they did not have any competition between 1950 and 1978) are struggling to maintain their previous growth rates. When countries open up that were previously planned economies, consumer spending proliferates because discretionary consumption is practically non-

Figure 1. The Switch into Consumer Services in Hong Kong, 1975–93

Source: Based on Hong Kong government estimates of GDP.
existent under planning. People have narrowly limited choices; a suit might be either blue or green, shoes might be brown or black, but there are no brands. The market economy brings choices, and people want to distinguish themselves from other people. This environment benefits companies that have a brand; they can go into a market and immediately grab 50–70 percent of the market for, say, soft drinks, in the case of Coca-Cola, or cigarettes, in the case of Philip Morris. Because there were no brands in the market under planning, brands are imported or develop quickly. As they become richer and their standard of living rises, people also work fewer hours. In many of these countries, the number of hours worked per month has declined significantly since 1990, and people have more free time for entertainment. This development benefits the sports and consumer industries. Soccer, for instance, is likely to become the sport of the masses in China; golf is the sport of the rich in Asia. Show business, movies, music, leisure activities, and shopping have all grown. When people have free time, they also have a propensity to be sick more often, which benefits the health care industry. The construction of hospitals leads, in turn, to a boom in ancillary services.

Higher standards of living and increased leisure time also encourage the travel industry. In England, the departure rate—that is, the percentage of the population that leaves the country at least once a year—is 55 percent. In Japan, the departure rate is about 12 percent and growing rapidly; it should grow to 40 percent in the next 10–20 years. In China, the departure rate is only 0.25 percent. The Chinese may never have a 55 percent departure rate, which would mean 550 million tourists leaving China a year, but a 10 percent departure rate is not unreasonable. This development will create a boom in the travel industry worldwide.

Another issue related to changing consumption that is important for the developing world is that, as it rapidly grows, its demand for resources rapidly grows. The developing countries have become much more important percentages than in the past of the global market for commodities. The developing countries are consuming more coffee, more cocoa, and more metal—more of all commodities. The per capita consumption of cocoa and coffee is extremely low in Asia but growing rapidly. The Japanese have adopted coffee drinking, as have the Koreans, the Taiwanese, and the Hong Kong Chinese. When Chinese per capita consumption of coffee reaches the same levels as in the Western world, the Chinese will consume roughly five times the global coffee production. In the future, when China is a big buyer of commodities, commodity prices will go up, and when China overstocks and liquidates, commodity prices will tumble, which will add an element of volatility to the commodity markets.

**Investment Implications**

In the life cycle of emerging markets, depicted in Figure 2, the economy of a developing country rises from a depressed stage to a boom stage and then to a phase of euphoria, followed by disappointment; then, the cycle repeats but without the extreme highs and lows. The question for the emerging markets is: Having underperformed the U.S. market since January 1994, where are the markets in this life cycle? This question cannot be answered for the emerging stock markets in general because different emerging economies dance to different tunes. Some are poised for the next bull market, others are not. In the years to come, therefore, selectivity—not only among emerging markets or countries but also within those markets in terms of industries and companies—will become increasingly important. Despite the rising popularity of indexing around the world, the stage following disappointment may be the time when indexing will fail.
Changing Economics

Asian economies are in the midst of various changes, but considerable debate is going on about whether the changes are structural or cyclical. Because many of the Asian stock markets are lower today than in 1990, despite strong economic growth in such countries as Indonesia, South Korea, and Thailand, I believe that some structural changes have taken place.

Some observers believe that a major improvement will occur in the growth of Asian economies in the next two years as a result of a pickup in exports. I disagree. First, the Western world, which is the consumer of Asian products, is in a secular decline in the rate of growth of consumption because of demographics. The group that consumes the most, young people, especially the 25-year olds, is declining. The year 1997 marks the biggest decline in that group ever, which has led some economists to argue that this year will bring a recession, which is quite possible. Second, the consumer in the Western world is heavily indebted and thus cannot consume or increase consumption by as much as in the 1980s. Finally, real wages are declining globally. The addition of 3.5 billion people who are prepared to work for US$50 to US$60 a month to the global labor force is depressing the wages, as well as abilities to consume, of unskilled labor around the world.

Another reason for the slowdown in exports from Asia is that Asian exports have grown enormously and now, at 25 percent of global exports, are already substantial. That growth is obviously decelerating. Exports from Asia have been slowing since 1989. In the 1985–90 period, exports grew at about 30 percent a year, but that growth rate has slowed to 5–12 percent.
This slowdown has brought Asian countries from large current-account surpluses and excess liquidity in the late 1980s to large current-account deficits and capital deficiency. In other words, Asian developing countries, like most other emerging economies, are dependent on foreign capital to finance economic growth.

In the case of Asia, the slowdown in exports has come at an inopportune time. In the first growth phase in Asia, the economies were growing rapidly because of private initiatives but the infrastructure was neglected. Now, as Table 1 shows, the region must spend about US$1,500 billion on infrastructure projects. Unless the infrastructure is brought up to standards, Asia cannot grow and bottlenecks will develop. China needs to invest US$300 billion in transport alone. (The Chinese railroad system today has fewer miles in operation than the United States had in 1870, but China today has 1.2 billion people whereas the United States in 1870 had a population of 60 million.) The magnitude of the investment needed in the area is obviously draining liquidity.

In summary, I think emerging economies, particularly in Asia, will experience slower economic growth than in the past. It may be 4–6 percent rather than the 6–10 percent it was in the last 10 years or so. The drain on liquidity will make it difficult for financial markets to rise to the heights of the late 1980s. These markets may echo Germany’s experience after World War II, when the stock markets had a huge boom but the high was reached in 1962 and, even though Germany was growing very rapidly in the 1960s and 1970s, was not exceeded until 1986.

Moreover, economic growth in Asia will not necessarily translate into rising stock prices across the board. Investors will have to be selective; one year, one market will perform well, and another year, another market that may not have performed well previously will perform well. Markets such as South Korea, Thailand, Sri Lanka, Pakistan, and India were all hard hit in the last few years; maybe they will bottom out and then provide good opportunities in the next few years.

The Impact of China

To understand China, one must understand how the economic landscape of Asia looked before the Communist Party took over China in 1949. The centers of economic activity were Shanghai and Manchuria. Table 2 shows the distribution of foreign direct investments in China before the communist takeover. Table 1 shows the distribution of foreign direct investments in China before the communist takeover. Almost 50 percent of foreign investment in China (including Hong Kong) was in Shanghai. Even the

<table>
<thead>
<tr>
<th>Table 1. East Asia: Infrastructure Investment, 1995–2004</th>
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<td>(US$ billions except percentages)</td>
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<table>
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<th>Country</th>
<th>Power</th>
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<th>Water and Sanitation</th>
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<td>192</td>
<td>6.8</td>
</tr>
<tr>
<td>South Korea</td>
<td>101</td>
<td>32</td>
<td>132</td>
<td>4</td>
<td>269</td>
<td>5.6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>17</td>
<td>6</td>
<td>22</td>
<td>4</td>
<td>49</td>
<td>4.8</td>
</tr>
<tr>
<td>Philippines</td>
<td>19</td>
<td>7</td>
<td>18</td>
<td>4</td>
<td>48</td>
<td>6.8</td>
</tr>
<tr>
<td>Thailand</td>
<td>49</td>
<td>29</td>
<td>57</td>
<td>10</td>
<td>145</td>
<td>7.2</td>
</tr>
<tr>
<td>Other(^a)</td>
<td>25</td>
<td>18</td>
<td>14</td>
<td>4</td>
<td>61</td>
<td>7.5</td>
</tr>
<tr>
<td><strong>Total East Asia</strong></td>
<td><strong>493</strong></td>
<td><strong>256</strong></td>
<td><strong>607</strong></td>
<td><strong>153</strong></td>
<td><strong>1,508</strong></td>
<td><strong>6.8%</strong></td>
</tr>
</tbody>
</table>

\(^a\)Cambodia, Fiji, Kiribati, Laos, Maldives, Mongolia, Myanmar, Solomon Islands, Tonga, Vanuatu, Vietnam, and Western Samoa.

British invested more than 75 percent of their US$963 million in Shanghai and only 9 percent in Hong Kong. Before the communist takeover, Hong Kong was an insignificant port village. Hong Kong became the global center that it is through a historical accident. When China closed down under the communists and the embargo of China during the Korean War, Shanghai’s entrepreneurs moved to Hong Kong and destitute workers came to Hong Kong as refugees. The refugees had to work at any salary, which gave the lift to the first industrial production in Hong Kong—textiles and, later, toys, plastics, and electronics.

Indeed, when the communists took over China in 1949, all of Asia changed. Taiwan, for example, would be an island without any economic importance but for the closing of China and, later, the closing of Vietnam, Burma, Laos, and Cambodia. Now, as these countries begin to open up, Asia is once again changing.

When China began to open up in 1978, growth centered in the special economic zones that were put around Hong Kong in the Pearl River delta, notably Shenzhen. In recent years, growth has shifted to the Shanghai–Tianjin corridor. Jiangsu Province and Zhejiang Province, surrounding Shanghai, already have higher GDPs per capita today than Guangdong Province, even though Jiangsu and Zhejiang began to open up only in 1988. Shanghai’s growth now exceeds that of the Guangdong region. The central government has a lot at stake in Pudong, a new city across the river from Shanghai, and will ensure its health and growth. The government will give privileges to people who settle in Pudong, so it will eventually compete with Hong Kong.

### Asian Real Estate

One of the growth industries in Asia but also one of the problem areas at the moment is real estate. Massive construction everywhere has led to building oversupply in many countries and cities. In particular, China has a tremendous oversupply in the commercial property market. These properties will be prizes in Shanghai and Beijing within the next two years. Eventually, property prices in Shanghai will exceed those in Hong Kong. Hong Kong property prices are selling at a huge premium, about five times higher than in Shanghai and other Chinese cities, but with Hong Kong becoming a Chinese city after July 1, 1997, arbitrage is likely. Therefore, investors should be short Hong Kong properties and long properties in Shanghai and other centers.

*Property investments in Asia—considering that the property market is cyclical—will have generally good returns if bought at reasonable prices, because urbanization in Asia, although progressing rapidly, is low. South Korea illustrates the progress of urbanization in Asia: 74 percent of the population was living in cities in 1990, up from only 21 percent in 1950. In China, about 25 percent live in cities, but I expect this percentage to increase to 50 in the next*

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**Table 2. Geographical Distribution of Foreign Direct Investments in China in 1931**

<table>
<thead>
<tr>
<th>Area</th>
<th>Great Britain</th>
<th>Japan</th>
<th>Russia</th>
<th>United States</th>
<th>Total</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shanghai</td>
<td>737.4</td>
<td>215.0</td>
<td>—</td>
<td>97.5</td>
<td>1,049.9</td>
<td>46.4%</td>
</tr>
<tr>
<td>Manchuria</td>
<td>—</td>
<td>550.2</td>
<td></td>
<td>261.8</td>
<td>812.0</td>
<td>36.0</td>
</tr>
<tr>
<td>Rest of China</td>
<td>226.0</td>
<td>108.9</td>
<td>11.4</td>
<td>52.7</td>
<td>399.0</td>
<td>17.6</td>
</tr>
<tr>
<td>(including Hong Kong)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>963.4</td>
<td>874.1</td>
<td>273.2</td>
<td>150.2</td>
<td>2,260.9</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

*Source: Data from C.F. Remer, *Foreign Investments in China* (New York: Macmillan, 1933).*
15 years. Therefore, growth in the suburbs of cities will be dramatic. During the next 15–20 years, a billion people will move from the countryside in Asia to the cities.

**Population Growth**

The growth in population continues to explode in Asia, as Figure 3 illustrates. In China, estimates are that the population began climbing in the 1700s, dipped only once, in the late 1800s to about 415 million, and has been climbing ever since then. It reached about 835 million in 1975 and could exceed 1.2 billion by the year 2000. On the Indian subcontinent, the population began to soar in the early 1800s; by 1975, it had grown from about 190 million to about 775 million and is on the way to 1.3 billion by the year 2000.

The population growth of Asia is a mixed blessing. It may be good for some property markets, but the explosion of populations in India, China, and Indonesia is leading to rising wealth disparities within Asian countries and among Asian countries. GDP per capita varies widely among the countries of Asia. Singapore with 2.5 million people has a larger GDP than Bangladesh with 110 million people. Shanghai’s GDP is now slightly higher than Singapore’s GDP. In the long run, such disparities can create tensions between countries and lead to instability in the financial markets.

**Conclusion**

Several geographical areas will offer great opportunities in Asia in the next 10 years. Regions that will open up include Asian Russia, the cities in northeastern China and the countries in the Shanghai region—Vietnam, Laos, Cambodia, Myanmar—and even North Korea. In general, politically stable countries with low wealth disparity;

**Figure 3. Asia's Population Explosion**

- **China**
- **The Indian Subcontinent**

*Note: China includes Turkestan and Tibet, China proper, and Inner Mongolia and Manchuria. The Indian subcontinent includes Pakistan, India, Bangladesh, Sri Lanka, and Nepal.*

*Source: Data from the *Atlas of World Population History*. 

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selected cities in large countries that can develop special skills; commodity-based economies, such as Australia and New Zealand; and Singapore and Malaysia should perform relatively well. This performance does not mean, however, that their stock markets will do well.

As for industries, real estate in secondary locations and on the outskirts of large cities should do well, as should agricultural commodities (especially sugar and cocoa) and precious metals (gold and silver). Other opportunities should lie in consumer goods, travel, entertainment, services, and insurance.

In the next 10 years, investors should avoid the stock markets of Hong Kong, the Philippines, southern China, Malaysia, and any large country with a large population and great wealth disparity. Industries that are likely to be disappointing are manufacturers of commodity-type products, such as semiconductors, personal computers, and so on, telephone companies, infrastructure-related projects, and real estate in downtown areas—especially Hong Kong. At one point, we at Marc Faber Limited thought that fixed-income securities would outperform equities in general in the emerging markets, but equities have had a strong rally since the Mexican peso crisis in 1994–95. In fact, some money may flow out of fixed-income securities into equity in some markets.

Promising emerging markets outside Asia include Eastern Europe and the states of the former Soviet Union, the Baltic countries—particularly Romania. In a few years, someone driving from Moscow to Frankfurt will hardly see a difference because standards of living will have risen so substantially throughout Eastern Europe. At the moment, however, Russian equities are not a good buy because of their strong rise. In Latin America, the countries of Bolivia, Ecuador, and eventually, Cuba should open up in the next 10 years. Africa (particularly for its resources) and Central Asia are the last frontiers for the emerging market investor.

The emergence of so many countries offers investors tremendous opportunities, especially through the multinational corporations, which know how to capitalize on this change. The world has always gone in phases, however—phases in which foreigners were thrown out and then phases where they were invited back in. Following the end of the colonial system after World War II, most emerging economies were hostile to foreigners; they instituted policies of self-reliance and restricted foreign investments. In recent years, these emerging economies have begged foreigners to come back and invest. If anything goes wrong, however, and the expectations of the populations in these countries are not met—in other words, if the public is disappointed and social problems arise—the foreigners are likely to take the blame and be expelled again.

Finally, the history of the U.S. stock market, the stock market that has lasted for more than 150 years, is unusual. Most other markets in the world have been totally destroyed at one time or another. The Russian stock market, which was a huge market before World War I, and all the East European markets ceased to exist after World War II. Nationalizations—as in Egypt in 1954—have wiped out investors’ assets numerous times. If a slowdown occurs in the growth of emerging markets, remember that the history of foreign investments has not been particularly kind.