For investors who want to use the securitized property market for their international real estate investments, a number of important issues must be contemplated. In this article, we look at three of these issues.

The first is market size. We examine whether the international securitized real estate equity markets are big enough to absorb substantial amounts of investment capital. In order to do this, we look at the size of the securitized market, and relate that to the estimated size of the private global equity real estate market.

The second issue is liquidity, which is often used as a reason to use the public equity property markets instead of the private markets. Indeed, it is probably almost always easier to buy or sell stocks in property companies than it is to buy or sell properties directly. The question is whether liquidity is there when you need it: Is it possible to sell the shares of property companies quickly when markets are heading down? We address this issue by looking at liquidity in time, and over varying market circumstances. In most of the markets we analyze, liquidity, as measured in physical share turnover, did not fall during bear markets.

The third and last issue is pricing in the largest securitized property markets. We analyze the relationship between the interest rate and the earnings-price ratio in each of these markets. There appears to have been some overreaction in Hong Kong.

MARKET SIZE: IS IT BIG ENOUGH?

The first question we ask is: Are the public real estate markets big enough to absorb substantial amounts of capital? Especially for very large institutional investors, this is a relevant issue, as they have no choice but to go both private and public when the public markets do not have sufficient size to be considered a serious investment alternative to private property investment. Exhibit 1 shows the development of this market since the mid-1980s. The graph distinguishes Europe, North America, and the Far East/Pacific region.

In the early 1980s, the global property share market had a total capitalization of approximately U.S. $25 billion, and this began growing very strongly in the late 1980s. From the graph, it is clear that this growth emanated mainly from Europe and the Far East. The North American property share market only started growing later. The global property crisis that began in 1989 temporarily hampered the growth of the world property share market. Between the end of 1988 and the beginning of 1993, global market capitalization hovered around U.S. $150 billion. During that period, the North American property share market's capitalization was only 20% of the global market.

This period ended with strong growth in 1993 and 1994. This time, the North American market did play an important role in worldwide developments, and, as the graph shows, the European and the Far Eastern markets grew as well. As a reaction to the property credit crunch that followed the property crisis, new ways of financing real estate had to be found, and the stock market appeared to be the perfect vehicle. As a result, the equity REIT market in the U.S. blossomed, and then boomed.

In the Far East, Hong Kong led the way for a regional boom in the property share markets, and both the number of listed companies and their size grew strongly. The market grew from U.S. $27 billion by the end of 1992 to U.S. $98 billion in December 1996, amounting to 28% of the total global market capitalization. If one considers that Hong Kong GDP is only 2% of world GDP, the magnitude of the distortion caused by property securitization in Hong Kong becomes obvious.
The next two years were a period of consolidation, with a global market value of around U.S. $250 billion. In 1997, growth picked up speed, again led by the U.S. and the Far East. The last distinct phase in the recent evolution of this market started in the second half of 1997, with the crisis in the Asian financial markets. Market values in North America and Europe, however, were not affected very much by the turmoil and remained relatively stable. Currently, the global property share market value stands at about U.S. $350 billion, divided about equally among Europe, North America, and the Far East.

Although this is a substantial amount of money, it is probably not much compared with the global stock of privately held real estate. To get more insight into this issue, we estimate the value of the global stock of private real estate using a method much like the one proposed by Miles et al. [1994]. But while they assume a fixed ratio between a country's GDP and its stock of investment assets, we assume a different, but also fixed, ratio between a country's GDP and its total commercial real estate assets. The ratio equals the value of U.S. GDP divided by the total value of commercial real estate assets in the U.S. for 1996, based on the value of U.S. commercial real estate estimated by Miles and Tolleson [1997](n1) We find a total global value of the commercial real estate equity markets of U.S. $11,867 billion at the end of 1996. At that time, the total market capitalization of public equity real estate was approximately $325 billion, or about 2.7% of the private total. From this result we conclude that the level of property securitization is not yet very high on a global basis.

Of course, our estimate represents a global average, and the level of real estate securitization varies across countries. As a result, public real estate investment on a serious scale is not an option in all countries. This means that institutional investors with very specific demands in terms of country allocation and with very large amounts of investment capital are forced to use both the private and the public property markets.

Nevertheless, the global public markets can offer significant advantages and opportunities to U.S. investors. In the next sections, we investigate liquidity and the current attractiveness of specific foreign property share markets. We present information regarding all national property share markets, but we focus on the six largest: Australia, Hong Kong, Japan, France, the U.K., and the U.S.

LIQUIDITY IS RELIABLE

One of the most important advantages of investing in the public property markets is liquidity. Buying the shares of listed property companies allows investors to adjust their exposure to property in different markets quickly if changes in market conditions make this necessary. To gain more insight into this issue, we examine stock trading volume in the six biggest property share markets.

To a large extent, the liquidity of the property share markets is country-driven. Exhibit 2 illustrates this point very clearly. The graph shows the average of the annual dollar trading volume divided by the dollar market capitalization for each country for the period 1991 through 1998. In effect, the graph provides a picture of the monthly physical stock turnover, and thereby demonstrates the ease with which an investor can increase or decrease exposure to particular property share markets.

It is clear that Hong Kong and the U.S. have the highest average volume. Approximately 50% of the shares of the average Hong Kong property company are traded each year. For the U.S., this is just over 65%. The other liquid market is the U.K., where this percentage is approximately 43%. In Japan and Australia, this percentage is about 32%, and in France, where liquidity is much lower, an average of 12% of shares is traded each month. Investors can take this into account when decisions concerning asset allocation are being made. Because the liquid markets are more attractive to invest in, they may be overweighted to some extent.

For institutional investors, a reasonable level of trading volume is especially important in bear markets. The only way to manage the risk of a property share portfolio is to adjust its weighting based on market expectations. In the current market, property derivative instruments do not exist, so hedging portfolio risk with such instruments is impossible. It is therefore imperative that portfolio weights can be adjusted quickly according to altering circumstances and expectations, and, for that, liquidity is essential.

Current market movements in the Far East and the U.S. provide us with very good information pertaining to this issue: If property stock trading volumes do not fall in times of a bear market, the property share market clearly has a big advantage over the private property markets, where, on
occasion, liquidity has all but dried up. Exhibits 3A through 3F provide monthly physical trading volumes for the six countries we study for January 1990 through January 1999. Again, the vertical axis shows the average percentage of outstanding shares traded in each month.

The main story the graphs tell is that liquidity does not fall when markets take a dive. For all six countries, trading volumes maintained their historic levels. Even in Hong Kong, liquidity held its own even when prices fell very sharply. This is a marked contrast with the situation in the direct property markets in the Far East, where liquidity has all but dried up. These findings imply that investors willing to decrease their exposure to property in these six markets can probably do that at prevailing market prices. Thus, the liquidity advantage property shares have over direct property investments holds in bull as well as in bear markets, a very important factor for investors concerned about the risk management of their foreign property holdings.

PRICING

All this means that an investor in the global public real estate markets can relatively quickly adjust his exposure to certain regions or property types. In other words, a timing strategy is possible using these investment instruments. With that, the question of which markets are cheap and which markets are dear comes to mind. In other words, how is it possible to take advantage of the performance differences between countries?

There are many ways to answer this question. No single valuation technique has been adopted as the standard method to determine the attractiveness of the market for all countries. The U.S. REIT market is often analyzed by using an FFO approach, and the European property share analysts frequently use some sort of NAV measurement to value property companies.

Another way to value markets is by looking at their price/earnings (P/E) ratio. A low P/E ratio implies a low expected growth in earnings, as investors are only paying a small multiple of the earnings for the shares in the company. When investors expect the company to grow fast, the P/E ratio goes up. Different countries have different average levels of P/E ratios, which is logical, because the cost of acquiring capital in a certain country varies.

So a simple comparison of the P/E ratios over countries would not suffice in establishing whether a certain property market is cheap or dear. But we need not analyze the absolute level of the P/E ratio. We can also examine the relative value of the P/E versus the interest rate in a certain country. In doing so, we can determine for each country whether the property share market is relatively expensive or not. In this article, we compare the inverse of the P/E ratio, the E/P ratio or earnings-price (or, in real estate parlance, the capitalization rate), with the prevailing interest rate in the country. From this calculation, we can determine what the spread is between the cost of the investment (the interest rate) and the returns on the investment (the earnings-price). This will tell us which markets are expensive, and which markets are cheap.

First, look at the 1997 price earnings ratios.(n2) In Exhibit 4, the average P/E ratio is plotted for the six biggest property share markets worldwide. From the exhibit, the P/E ratio of Japan jumps out, because earnings have been very low for the Japanese companies, resulting in a very high P/E ratio for Japan.

In a historical context, some other markets show surprising exhibits as well. The P/E ratio of the Hong Kong shares stood at approximately 8, while only a couple of years ago, the P/E ratio of Hong Kong was a multiple of that. Surprisingly, each of the more mature markets, France, the U.K., and the U.S., have a relatively high P/E, hovering between 15 and 20. Even when we consider the differences in accounting, this is quite high, because it means that investors are expecting a high level of earnings growth for the property companies in these markets, and given the fact that they are mature, this may not be very likely.

To get a picture of the development of the earnings-price ratio in time, Exhibits 5A through 5F show the earnings-price ratio versus the interest rates for the same six markets. The interest rates are ten-year swap rates. In some markets, the earnings-price and the interest rate are moving very close to one another.

An example of this is the situation in Australia (Exhibit 5A). This implies that the property share markets are fairly priced. For other markets, however, the situation is totally different. Looking at the Hong Kong market in Exhibit 5E, we see a spectacular jump in the earnings-price ratio during the crisis
that started in July 1997, reflecting the expectation of investors that earnings would fall rapidly. Judging by these numbers, the undervaluation of the Hong Kong market still existed at December 1998, but the gap between earnings-price and interest rates is rapidly closing.

Another market that shows a very interesting movement is the U.K., with the earnings-price climbing toward the interest rate, and at the moment the two are even crossing. In other words, it looks like the property share market in the U.K. could become undervalued.

Exhibit 5E which shows the development of the Japanese earnings-price ratio over time, shows that there have been periods of overvaluation and periods of under-valuation. Since the first months of 1998, the difference between earnings-price and interest rates has converged. In France (Exhibit 5A), the property shares have been overvalued for quite some time. The earnings-price and the interest rate move together, but the level of the interest rates is consistently higher than the earnings-price ratio.

The U.S. property share market (Exhibit 5C) has shown a similar pattern of behavior, but, during 1998, the gap between the earnings-price ratio and the interest rate narrowed. Nevertheless, and quite surprisingly, even after the strong repricing of the U.S. market, the long-run interest rate is still higher than the average earnings-price ratio.

CONCLUSIONS AND IMPLICATIONS FOR INVESTORS

Over the last fifteen years, the global property share market has shown substantial growth. At the end of 1998, the market was worth just over U.S. $350 billion. However, based on our estimate, the level of commercial property securitization, as measured by the ratio of public to private commercial property, was still under 3%, and this ratio differs a lot across countries. This means that the public commercial property markets in different countries do not offer the same opportunities for investment.

Another key issue for investors who want to use the opportunities of the public property market is liquidity. Our research indicates that even when markets are doing poorly, liquidity is still available. That means that liquidity is not a mirage; it is really there, and it can help investors with the risk management of their portfolios.

When investors decide to invest internationally there are a number of options available to determine which markets are likely to perform well. One way is to compare the earnings-price of markets with local interest rates. Applying this criterion, the Hong Kong property share market appears to have been strongly undervalued, and, consequently, the likelihood of that market outperforming was extremely high.

Interestingly, this view was at odds with investor sentiment during the middle of 1998, even though it was during this period that the gap between the earnings-price ratio and interest rates was sending out a strong signal that the property share market had become extremely undervalued. While the gap between the earnings-price ratio and interest rates has significantly closed since the market lows in 1998, the gap between the earnings-price ratio and interest rates still indicates attractive valuations on a global relative basis. Conversely, applying the same analysis to the mature markets, the current tendency to view these markets as low risk may be somewhat erroneous. Our analysis suggests that these markets are the most expensive.

ENDNOTES

(n1) The GDP data is from the World Bank [1999], and the global estimate is based on the following countries: Argentina, Australia, Austria, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Hong Kong, Indonesia, Ireland, Italy, Japan, Malaysia, Netherlands, New Zealand, Norway, the Philippines, Portugal, Singapore, Spain, Sweden, Switzerland, Thailand, the U.K., and the U.S.

(n2) price/earnings ratios are calculated by taking the average of the price/earnings ratios of the ten largest companies in each property market. The prices taken are December 1997 exhibits, the earnings information is the earnings exhibit at the fiscal year-end of each individual company.

GRAPH: EXHIBIT 1; Market Size Development by Continent -- Market Capitalization in U.S.$

GRAPH: EXHIBIT 2; Average Annual Trading Volume as Percentage of Total Market Capitalization -- January 1991-December 1998
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