Bellwether CONSULTING

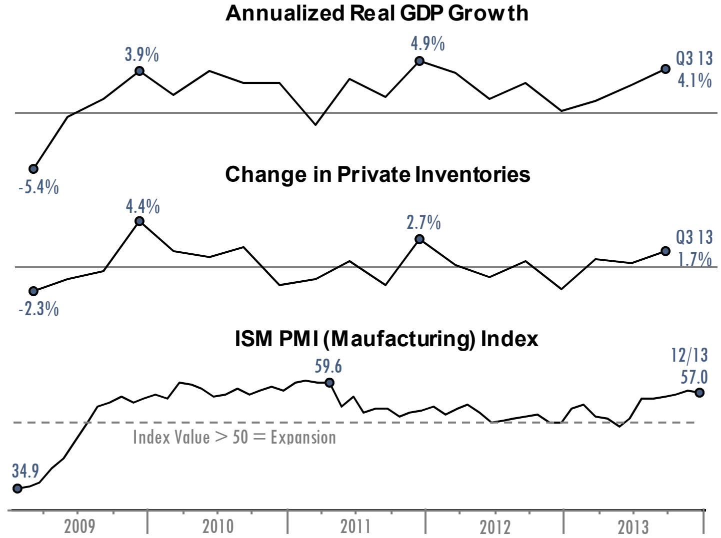
Your Quarterly Update on the Financial Markets

December 31, 2013

4th Quarter

MARKET Recap

The Economy: “2013 Goes Out with a Bang”



The pace of economic growth increased sharply to 4.1% in the third quarter. Once again the private sector contributed positively across nearly all components, including personal consumption, residential and nonresidential fixed investment, and exports. Federal spending and imports detracted from growth. Although positive, note that nearly 1.7% of GDP growth came from change in private inventories.

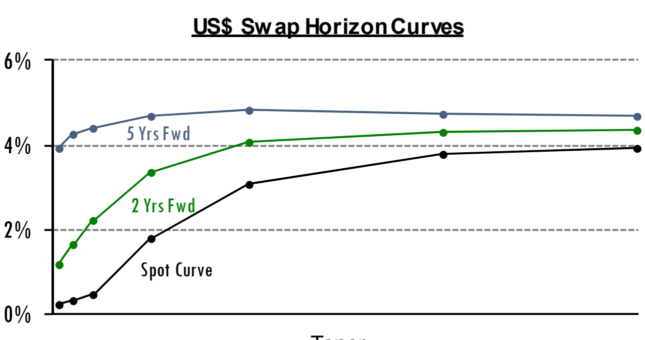
Change in inventories is one of the most volatile components of GDP growth. That stands to reason, as the purpose of inventories is to smooth out production and business cycles. One would expect that inventory growth would tend to precede economic expansion; however the correlation between inventory growth and GDP growth since the 1960's is not very high. Since the recession of 2007 the pace of GDP growth has peaked twice, in both cases driven by inventory investment; however, underlying demand was not strong enough to deplete inventories and growth slackened accordingly. That is not to say inventory growth is bad; quite the contrary, it explains continued solid performance in the manufacturing sector. The Conference Board's PMI index, a broad measure of manufacturing activity, peaked at levels not seen since early 2011 before declining slightly in December. Rather, we would say that inventory growth alone does not inspire confidence. Perhaps the relatively slow rate of decline in the Fed's asset purchase program reflects this. In addition to the fairly uneventful “taper” announcement in December, Open Market Committee participants confirmed their outlook that short-term interest rates should not be increased until 2015, and even then very slowly.

For another view on future growth we turn to the somewhat more reliable yield curve. As discussed in more detail below, today's yield curve is exceptionally steep. Normally that would indicate expectations of robust growth and price inflation. But things are far from normal – current steepness is more a function of Fed intervention to nail down the short end of the curve than any free market action. The swap forward market tells another story. Clearly the market takes the Fed at its word, short-term rates both 2-years and 5-years forward are near the median Fed projection. However the steepness disappears with time; long-term rates budge very little from current levels. A flat curve conveys much less confidence in economic growth at the horizon.

FOMC Participants' Rate Projections

Fed Funds	Year-End 2014	Year-End 2015	Year-End 2016	Longer Run
4.25%			1	2
4.00%			1	9
3.75%				2
3.50%				4
3.25%		1	1	
3.00%			1	
2.75%		1	1	
2.50%			2	
2.25%				
2.00%		1	1	
1.75%			4	
1.50%		1	2	
1.25%	1	1	1	
1.00%		2	1	
0.75%	1	4		
0.50%		3	1	
0.25%	15	3		

No single statistic reliably predicts economic growth; economists and bond nerds joke that the yield curve has predicted 10 of the last 5 recessions. But there remains a gap between near-term and long-term expectations. If we enter a period of weakness at the horizon, the theory goes, the Fed will have replenished its “dry powder” by regaining the ability to reduce short-term rates. Earlier problems would be more difficult to deal with, requiring further quantitative easing instead, but at this time there are few warning signs.



Source: Bloomberg LP as of 12/31/2013

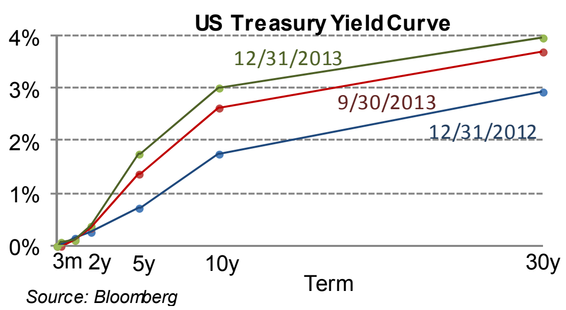
The US Bond Market

Bond Indices - Total Returns	4Q13	2013
BarCap Aggregate	-0.14%	-2.02%
BarCap Interm. Gov't	-0.42%	-1.25%
BarCap Long Gov't	-2.97%	-12.48%
BarCap Interm. Credit	0.68%	-0.17%
BarCap Long Credit	1.54%	-6.62%
BarCap High Yield	3.58%	7.44%

The Federal Open Market Committee's December 18th announcement of a modest taper in the pace of its asset purchases coupled with strengthened forward guidance met with a generally positive initial reaction, especially for risk markets. Equities and credits rallied while Government bond prices remained generally stable on the news. Beginning in January 2014 the FOMC's monthly purchases of Agency MBS will decline from $40 to $35 billion and that of longer-term Treasuries from $45 to $40 billion, for a total reduction of $10 billion per month. Growing strength in the broader economy as demonstrated by improved economic activity and labor market conditions was cited as the impetus behind the changes. Further measured reductions in the pace of asset purchases are expected at future meetings, tempered in pace and contingent on the outlook for the labor market and inflation as well as the efficacy and cost of such purchases. In other words, it is understood that the bond purchases cannot work their charms indefinitely.

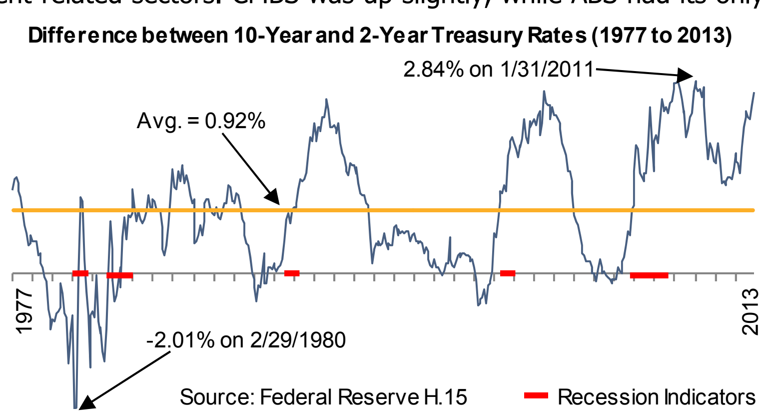
At the same time, the FOMC reaffirmed its commitment to highly accommodative monetary policy for a considerable period after the asset purchase program concludes and the economic recovery strengthens. The low current target fed funds rate range of 0-0.25% will be maintained at least while the unemployment rate remains above 6.5% and inflation projections remain no higher than 0.5% above the 2% goal for the next one to two years, with longer-term inflation expectations remaining well-anchored. Practically speaking, the exceptionally low fed funds target will now likely be maintained well past the time of the decline to below 6.5% unemployment, particularly if inflation projections continue to run under the 2% long-term goal, and price inflation actually trended down over the past several months.

What are the possible implications? For one thing, steady policy rates can be expected for a couple of years into the future, allowing front-end corporate, mortgage, and Treasury positions to provide an opportunity for effectively defensive (albeit low) returns. At the same time, other yield-focused asset classes (investment grade credit, high yield, dividend equities, hedge funds, etc.) have been bid higher as yield-seeking investors have moved out of Treasuries, increasing the risk and decreasing the attractiveness of these strategies.



As investors prepared for a decrease in monetary stimulus, yields for US Treasuries climbed for maturities longer than one year, with the 10-year closing the year at 3.03% (vs. 1.76% a year ago) - its highest level in more than two years. As a result, the yield curve shifted upward and steepened notably during the year. At 266 basis points the spread between the 10-year and 2-year yields is currently 1.82 standard deviations above the average from 1977 to 2013. If the curve were to flatten by 180 basis points, we would just achieve the historically average slope – not even a flat or inverted curve. With this much room to flatten, investors on the short end of the curve and those in BarCap Aggregate products will likely have more pain to work through than those on the long end.

Also of note were shrinking spreads between corporates and Treasuries, which met a low for the year of 1.14% at year-end. In spite of showing some improvement during the second half of the year, high grade corporates posted negative returns for 2013 across all qualities and maturities, except for the 1-3 year maturities and intermediate duration financial-sector bonds. In contrast, high yield had a solid year with intermediates outperforming long bonds for B-rated or better quality, while C or lower-rated issues performed particularly well on the long-end. All Treasuries (with the exception of those with maturity under 2 years) posted negative returns for 2013, especially on the long end with the 10-year down 7.8% and the 30-year down 15.0%, as did the government-related sectors. CMBS was up slightly, while ABS had its only bright spot in the auto sector, and MBS was negative across the board for the year. In 2013, hybrid adjustable rate mortgages with longer initial fixed interest rate periods were also negative, as were long sovereigns and foreign agencies.



US high yield issuance of $324 billion for 2013 was the second-largest yearly figure ever, following 2012's unprecedented $344 billion, according to S&P Capital IQ/LCD, with 724 deals priced in 2013, including October's T-Mobile USA Inc. $5.6 billion issue. 2013's global corporate investment grade bond volume decreased modestly from $1.75 trillion in 2012 to $1.70 trillion, per Dealogic, including the Verizon Communications and Apple issuance of the largest two corporate bonds on record, at $49.0 billion and $17.0 billion respectively. At the same time, Yankee debt capital market issuance reached a record high of $841.2 billion during the year, up 6% from 2012.

Municipal bonds had their first year of negative returns since 2008 with investors skeptical about short-term muni market prospects. Detroit declared bankruptcy. Puerto Rico's total return index was down over 20% with yields ending the year at a record high of nearly 10%, raising concerns about the Commonwealth's ability to support its economy by accessing credit markets in 2014. The mortgage and housing market ended the year with signs of continued recovery, with FOMC bond purchases keeping the markets stable. The benchmark 30-year fixed rate mortgage increased by 1.125% to 4.480% year-over-year. Rents are on the rise, and housing prices ended up 13% year-over-year. At a time when mortgage applications have fallen off, the planned increase in guarantee fees for agency MBS, which would have raised the hurdle to refinance for homeowners and passed on higher costs to consumers, was delayed in a December announcement by Mel Wall, the incoming director of the Federal Housing Finance Agency. The market remains squeezed by the rising rates that have hurt home sales, while constrained inventory resulting from a slow recovery in home construction and continuing tight credit have created pent-up demand. According to Lawrence Yun, chief economist of the National Association of Realtors, pent-up demand for both rental and owner-occupied housing is contributing to rents rising at the highest pace in 5 years and annual home prices rising at the fastest rate in 8 years.

The US Stock Market

US stock markets were bolstered by the Fed's commitment to maintaining a stimulative monetary policy, as well as better than expected GDP growth and consumer spending habits, making 2013 the best year for the S&P 500 since 1997. Risk-on marked the theme once again for Q4, where the more cyclical sectors outperformed defensive ones.

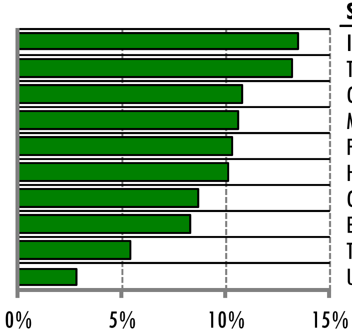
Stock Indices - Total Returns

Largecap Stocks	4Q13	2013	Midcap Stocks	4Q13	2013
S&P 500	10.51%	32.39%	S&P Midcap 400	8.33%	33.50%
Russell 1000	10.23%	33.11%	Russell Midcap	8.39%	34.76%
Growth	10.44%	33.48%	Growth	8.23%	35.74%
Value	10.01%	32.53%	Value	8.56%	33.46%
Broad Markets			**Smallcap Stocks**		
Russell 3000	10.10%	33.55%	S&P Smallcap 600	9.83%	41.31%
Growth	10.25%	34.23%	Russell 2000	8.72%	38.82%
Value	9.95%	32.69%	Growth	8.17%	43.30%
			Value	9.30%	34.52%

Large-cap industrial and technology stocks were top tier performers in the fourth quarter, each returning more than 13%. FedEx and UPS, which are categorized as industrials, gained 26.1% and 15.7%, respectively, as consumers continued to move more purchases to the online medium. Also considered industrials, airlines surged higher due to consolidation that has created an environment of pricing power. Delta (which was added to the S&P 500) and Southwest Airlines gained 16.7% and 29.7% respectively. Internet-related stocks led within technology. Amazon.com gained 27.6% in Q4, also benefiting from the trend of increasing online consumer purchases. According to the US Department of Commerce, year-over-year online retail sales for each quarter in 2013 grew over 15%. In the internet retail space, eBay was a laggard, losing 1.7% because many sellers do not offer expedited shipping options for last-minute holiday purchases. According to ChannelAdvisor, which monitors online traffic and sales, Google is making gains in the online retail business. Shares surged higher on a Q3 earnings beat and comments from CEO Larry Page stating the company is making progress towards a full suite of products and services that will reach users "on any device at any time." Apple, the largest constituent of the S&P 500 at approximately 3.1% of the index, gained 18.3% on strong international sales, product innovations (iWatch), and over 90% market share in the US education market.

Consumer discretionary stocks rounded out the top 3 sectors in Q4. Brick and mortar retailers have been challenged by the online trend. Circuit City, Linens 'n Things and Borders all closed their doors in recent years because of fierce e-commerce competition. In response, many successful retailers have begun using more tactical measures such as aggressive price matching efforts and other promotional offers. Department store retailers TJX Companies and Macy's gained 13.3% and 24.0%, respectively. Macy's had a notable earnings report that easily beat analysts' estimates as typical gift and winter-weather items sold well. Darden Restaurants and Chipotle also had noteworthy quarters, returning 18.6% and 24.3%, respectively. Darden's stock shot up in early Q4 on news of a hedge fund stake pushing the company to restructure in an effort to increase shareholder value. Chipotle surged on its Q3 earnings report, helped by higher store traffic and same store sales growth. Finally, Disney was a distinguished performer driven by strong performance in its interactive, consumer products, and parks &

S&P 500 Economic Group Components - Total Return



Sector	4Q13	2013
Industrials	13.53%	40.68%
Technology	13.26%	28.43%
Consumer Discr.	10.81%	43.08%
Materials	10.66%	25.60%
Financials	10.33%	35.63%
Health Care	10.13%	41.46%
Consumer Staples	8.66%	26.14%
Energy	8.35%	25.07%
Telecom	5.47%	11.47%
Utilities	2.79%	13.21%

Source: Standard & Poor's

resorts segments. Telecom and utility stocks rounded out the bottom sectors. Rising interest rates caused investors to shy away from the two sectors that offer higher dividends and more stable, lower growth cash flows and earnings. Typically experiencing returns inversely correlated to interest rates, REITs were poor performers to finish out the year. Not surprisingly, dividend stocks, which are dominated by defensive sectors, trailed during Q4.

Mid- and small-cap stock sector performance mostly mirrored the large-cap space, where risk-on sectors such as consumer discretionaries and industrials outperformed lower beta utilities and consumer staples. Mid-cap pharmaceutical, biotechnology, and life sciences companies were top performers. Developer of drugs to treat chronic conditions such as pulmonary arterial hypertension, United Therapeutics Corporation surged 43.4% after the FDA approved the company's newest treatment for high blood pressure. The FDA has created programs in recent quarters for accelerated drug approvals, a trend that has benefited pharmaceutical companies as a whole. US-based specialty healthcare company Endo Health Solutions jumped 48.5% on the acquisition of a Canadian drug provider and plans to move its operations to Ireland, reducing its tax rate from 40% to 12.5%.

Based on the Russell 3000, growth outperformed value by 30 basis points in Q4 helped by sector overweights to the consumer discretionary, technology and industrial sectors, as well as underweights to the telecom and utility sectors. When looking at sectors alone, one would have expected the Russell 3000 Growth to more significantly outperform Value. Yet, the Russell 3000 Value's two top constituents (Exxon Mobil and General Electric), which make up 7.3% of the index, helped relative performance as both gained over 18%.

Overseas Markets

Overseas markets ended the year mixed with strong performance throughout developed regions and weaker returns in emerging regions. Continued progress in Europe helped developed markets while concerns about growth and asset bubbles in China dampened returns and had assets fleeing emerging markets.

The IMF cut its global outlook for full year 2013 and 2014 based on its analysis of capital outflows from emerging markets. Growth worldwide will be 2.9% this year and 3.6% next year, compared with July predictions of 3.1% for 2013 and 3.8% for 2014. The IMF sees emerging economies growing 4.5% this year, 0.5% less than last quarter's estimate, as projections were reduced for China, Mexico, India and Russia.

Selected Economic Data

	Real GDP			Consumer Prices			Current Acct Balance			Unemployment		
	2012	2013 (est)	2014 (est)	2012	2013 (est)	2014 (est)	2012	2013 (est)	2014 (est)	2012	2013 (est)	2014 (est)
United States	2.8	1.6	2.6	2.1	1.4	1.5	-2.7	-2.7	-2.8	8.1	7.6	7.4
Eurozone	-0.6	-0.4	1.0	2.5	1.5	1.5	1.3	1.8	1.9	11.4	12.3	12.2
Germany	0.9	0.5	1.4	2.1	1.6	1.8	7.0	6.0	5.7	5.5	5.6	5.5
Spain	-1.6	-1.3	0.2	2.4	1.8	1.5	-1.1	1.4	2.6	25.0	26.0	26.7
Greece	-6.4	-4.2	0.6	1.5	-0.8	-0.4	-3.4	-1.0	-0.5	24.3	27.0	26.0
Japan	2.0	2.0	1.2	0.0	0.0	2.9	1.0	1.2	1.7	4.4	4.2	4.3
China	7.7	7.6	7.3	2.6	2.7	3.0	2.3	2.5	2.7	4.1	4.1	4.1
Brazil	0.9	2.5	2.5	5.4	6.3	5.8	-2.4	-3.4	-3.2	5.5	5.8	6.0

Source: IMF WEO, October 2013 (Annual Percent Change)

Based on data out of China, analysts believe that in Q4 the Chinese economy maintained a stable and relatively fast pace of growth although GDP growth may fall short of the 7.8% pace seen in Q3. Analysts cited continued volatile global economic conditions and the difficulty of shifting China's growth model from investment-driven to consumer-driven as causes of any shortfall. Industrial output in China rose 10% in November, compared with the same month a year ago, according to data released by the National Bureau of Statistics. This figure marked a slight slowdown from October when factory, workshop and mine output grew 10.3% year-over-year. In contrast, retail sales rose 13.7% in November from 13.3% in the prior month, suggesting that a government policy emphasizing higher domestic consumption may be starting to bear fruit. Strong export data, up 12% in November year-over-year, and a benign inflation reading of 3%, below the government's annual target of 3.5%, were cause for optimism regarding the government's ability to maintain neutral monetary and fiscal policies while attempting structural reforms. In November, China's leadership convened to embark on a course of economic reforms, including a bigger role for the private sector, further interest rate liberalization and looser currency controls. Its chief goal is to move the economy away from dependency on investment and exports by strengthening consumer demand as the main driver of growth. While it's too early to forecast success or failure, the world will keep close tabs on progress.

Amid the positive news there are still concerns of a hard landing in China. Asset bubbles persist and they are increasingly being financed within China's shadow banking system. The carry trade (low interest borrowing of dollars off-shore converted into yuan) either disguised as foreign direct investment or export revenue for lending at a high interest rate has become a significant source of funding and may be largely responsible for the recent run-up in land prices. This form of financing may hold an unhappy ending if investor confidence wanes and leads to an unwinding of speculative holdings. China also experienced its second credit squeeze of the year in December as money market rates rose sharply. The crisis was brought on by a confluence of events as commercial banks trying to shore up their balance sheets to comply with regulatory requirements were vying for cash at the same time as Chinese companies seeking to settle outstanding payments by year-end. Rates surged to 8.9% before the government intervened, providing more than 300 billion yuan in short-term liquidity to banks, forcing rates down to 6.4%, but still above the 4.5% level from earlier in the year.

Foreign Stock & Bond Indices - Total Returns					
MSCI Broad Indices	**4Q13**	**2013**	**Barcap Global Indices***	**4Q13**	**2013**
World Index	8.00%	26.68%	Global Aggregate	-0.44%	-2.60%
EAFE (Developed)	5.71%	22.78%	Pan-Euro	2.47%	5.00%
Emerging Markets	1.83%	-2.60%	Asian-Pacific	-5.71%	-14.61%
			Eurodollar	0.61%	0.79%
MSCI Regions			Euro-Yen	-6.24%	-14.94%
Europe	7.88%	25.23%	Other Currencies	-0.54%	-5.06%
Japan	2.29%	27.16%	**Unhedged*		
Pacific ex-Japan	0.28%	5.49%			
Latin America	-2.33%	-13.36%			

The nascent recovery in the Eurozone nearly petered out as household consumption and exports slowed. GDP in the region rose 0.1% after a 0.3% gain the previous quarter, according to Eurostat. Early in November, the ECB cut its main refinancing rate to a record-low 0.25% based on its forecast for continued modest growth during the second half of 2013. The ECB predicts the economy will contract 0.4% this year before growing about 1% in 2014. November's PMI numbers showed the highest growth in 31 months in the manufacturing sector. This improvement, after two successive monthly decreases, helped to keep the recovery on track. The upturn means that businesses are seeing the strongest growth since the first half of 2011, and have now enjoyed two consecutive quarters of growth. December's Eurozone PMI increased to 52.7 from 51.6 in November, according to Markit Economics, well-above the estimate of 51.9 in a survey of economists. On a country level, the manufacturing PMI in France slipped to a seven-month low, but rose to a thirty-month high in Germany.

Ireland announced that it would exit its rescue program three years after being saved from bankruptcy by a trio of international lenders with a €67.5 billion loan. Ireland said that it will not seek additional funds from the IMF, European Commission and European Central Bank. Having implemented the spending cuts, asset sales and reforms required under the bailout terms, the country has become active again in global debt markets. At this point it has raised enough debt independently to fund itself into 2015. Meanwhile, Greece, Cyprus and Portugal continue to work through their bailouts, which include external scrutiny of government budgets, while Spain has received additional funds to recapitalize its banks.

A weak yen remains the cornerstone of Prime Minister Shinzo Abe's economic policy, and the administration continues to take any and all steps to ensure yen weakness. Early in December the Japanese government unveiled details of a ¥5.5 trillion ($53.9 billion) spending package to mitigate the expected drag on the economy from a sales tax increase slated for April. The package includes steps to encourage corporate investment and employment, as well as help for low-income households. The government expects a ¥18.6 trillion economic impact, lifting GDP by 1%. Mr. Abe was quoted as saying, "With this package and other economy-supporting efforts, we can make sure we remain on track to exit deflation." This was the second set of extra spending steps compiled by the Abe government after a ¥10.3 trillion package in January. Flexible fiscal spending is one of the "three arrows" aimed at defeating deflation. It is believed that the size of the spending package will be large enough to offset a drop in spending that will follow from a rush in demand ahead of the tax hike, which economists believe will be around ¥2 trillion. The main spending elements include ¥1.4 trillion for measures to promote capital investment by enterprises in preparation for Tokyo 2020 Summer Olympic Games, ¥300 billion for steps to create jobs for young people and women, and ¥3.1 trillion to fund reconstruction from the March 2011 earthquake and repair aging infrastructure across the nation. The government also set aside ¥600 billion for subsidies to low-wage earners. Abenomics appears to be working in the short-term as the yen weakened about 16% versus the dollar during 2013.

In emerging markets, the Bank of Korea kept its benchmark interest rate unchanged, with near 14-year-low inflation giving it room to support a rebound in Asia's fourth-largest economy as a declining yen threatens exports. The Bank's governing board kept the seven-day repurchase rate at 2.5%, the same level since a cut in May. Policy makers have been grappling with a won that rose to its highest level against the yen since 2008, threatening to hurt South Korean exporters' competitiveness against Japanese companies. Outbound shipments gained less than economists forecast in November and authorities are closely watching the won's moves against the Japanese currency.

Brazil continues to suffer from poor infrastructure and high inflation. It has lifted its target lending rate by 2.75% since April to 10%, the biggest increase among 49 central banks. Annual inflation accelerated to 5.85% through mid-December, more than a percentage point above the central bank's 4.5% target. The country also posted its worst trade balance since 2000 as consumer demand boosted imports and slower global growth crimped export sales. According to the Trade Ministry, Latin America's biggest economy had a trade surplus of $2.56 billion. Imports in 2013 rose 6.5% percent, totaling $240 billion for the year, and exports dropped 1% to $242 billion. GDP grew 2.3% in 2013, more than double the pace of 2012, while still trailing the Latin American average of 2.37%. The real fell 13% over the year, the largest drop since 2008, on concern that the country's fiscal deterioration will result in a reduced credit rating and on speculation that the tapering of Federal Reserve stimulus will further lower demand for the nation's assets.

Focus On: *Private Real Estate vs. REITs*

Whether to invest in US commercial real estate via private markets or publicly-traded REITs (real estate investment trusts) has long been debated, especially by academia. Much of the debate has been driven by what many believe to be an overwhelming bias towards private real estate at the institutional level. While much of the push back against private real estate investing is from the REIT industry, it is hard for anyone to ignore the fact that institutional investors almost exclusively allocate to private funds for exposure to the asset class. Herein we focus on the main differences between to the two investment vehicles, possible allocations to both in an institutional portfolio, and recent product innovations.

Recognizing the differences between REITs and private real estate funds is critical to understanding what has driven real estate investment exposure at the institutional level.

Liquidity: REIT companies issue publicly-traded shares through exchanges, allowing for daily liquidity just like any other stock. Private real estate funds, however, offer investors private shares which are largely illiquid. While there is a secondary market for shares of private real estate funds, discounts can be very steep.

Private funds can be structured as either open-ended (i.e., allowing shares to be issued and redeemed at regular intervals) or closed-ended (i.e., with all shares issued at the inception of the fund and redeemed at termination). Since "core" investment strategies focus on properties that have already been developed with the majority of the properties currently leased, they are typically structured as open-ended funds. Also, the more conservative nature of core funds leads to larger asset bases, which is operationally easier to manage in an open-ended structure. Most small or more speculative investment strategies are structured as closed-ended funds (much like a typical private equity fund). While private and closed-ended REITs do exist, the market is significantly smaller than the liquid REIT and private real estate fund markets.

Liquidity constraints are an important consideration for real estate investors. While traditional pension plans do have short term benefit payments, the majority of their liabilities are longer-term making them good candidates for illiquid private real estate investments. Endowments learned the hard way in 2007 that liquidity needs should not be ignored.

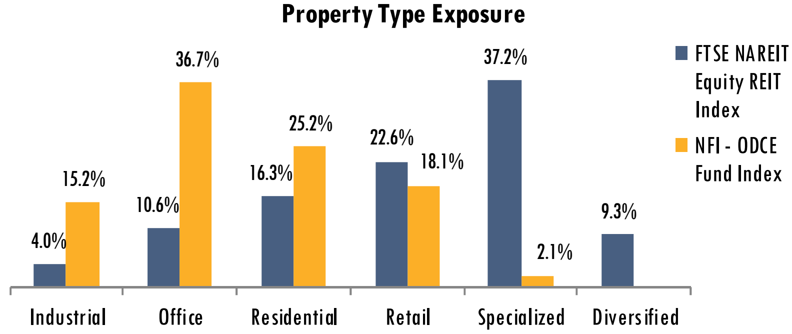
Valuation: A second major distinction between REITs and private real estate is how the vehicles are priced. REITs are priced continuously by market action, and investors look at more than just the underlying property values to determine attractiveness. The financial performance of the REIT, its debt, corporate management, property and development pipeline, and corporate strategy are all evaluated by potential investors. Pricing for REITs is greatly affected by macro events in the stock market. They are considered financial sector stocks and included in both active and passive equity strategies.

On the other hand, private real estate fund valuations are simply based on the appraisals of the underlying properties. For "core" properties these appraisals are often done by an outside firm on an annual basis and by the fund every quarter. As property types become more opportunistic and speculative (i.e., undeveloped land, properties under construction, properties in smaller foreign markets), appraisals may be done less frequently. Also, the quality of these appraisals may come into question. Property appraisals of developed buildings in large metro areas will be most accurate, as they benefit from the largest amount of public information.

Exposure: While the number of speculative investments among REITs has been growing, a large portion of the market is still invested in core-type properties. Development in the REIT market has led to growth of specialized REITs, particularly health care, timber, hospitality, and self-storage.

In the private space, investors have more choice in the level of risk they assume. "Core" strategies invest in developed properties with high tenant leasing levels in prime real estate markets. Much of the expected return from these investments comes from the income generated through leasing. "Core plus" investment funds hold core properties, but will focus part of the portfolio on properties that have potential for attractive capital appreciation after small enhancements. "Value added" strategies begin to move out of the core property markets into more speculative investments. These investments can be in properties where significant construction or development is needed or in properties that are suffering from slight financial distress or poor property management. "Opportunistic" funds take risk one step further by holding greater exposure to more speculative property types. These portfolios invest in raw land, undertake large development projects, and look to acquire highly distressed properties at significant discounts.

Property Type Exposure



Source: As of Sept. 30, 2013; NAREIT, NCREIF.

Leverage: Leverage is inherent in all real estate investment vehicles, but the extent to which it is used is another differentiator between REITs and private real estate. The average leverage in a REIT is currently 38%, while open-ended core funds are currently levered at 22%. As strategies add more speculative investments, the use of leverage usually increases. Core plus funds typically use leverage ranging from 30-50%. Leverage in value added funds can range from 40-60%, and opportunistic private strategies usually employ 50-70%.

Performance: REITs have experienced strong performance, particularly against open-ended core funds. Value added real estate funds have underperformed their private counterparts, with opportunistic funds posting the highest annualized returns since 1994. Private core funds experienced the lowest volatility of all the real estate investment types and equity REITs were most volatile. Value added strategies had higher volatility than core funds, but less than opportunistic funds. From an efficiency perspective among the real estate investments, private core funds provide the highest return per unit of risk compared to REITs which offer the lowest. Equity REITs have a significantly high correlation to equities, particularly small caps, and no correlation to bonds, although core real estate funds have a low correlation to equities and a slightly negative correlation to bonds.

	Core Private Real Estate	Equity REITs	Value Added Private Real Estate	Opportunistic Private Real Estate	Large Cap Equities	Small Cap Equities	Core Fixed Income
Since 1994							
Annualized Return	8.62%	10.72%	8.31%	13.32%	8.76%	8.51%	5.87%
Standard Deviation	11.43%	23.45%	15.02%	20.12%	19.59%	20.43%	3.76%
Return / Unit of Risk	0.75	0.46	0.55	0.66	0.45	0.42	1.56
Correlation with Core Private RE	1.00	0.20	0.91	0.80	0.17	0.13	-0.08
Correlation with Equity REITs	0.20	1.00	0.22	0.37	0.60	0.70	-0.01
5 Years							
Annualized Return	-0.15%	7.57%	-5.64%	-5.08%	7.12%	8.77%	5.19%
Standard Deviation	18.26%	35.64%	22.94%	25.23%	22.88%	24.75%	2.47%
Return / Unit of Risk	-0.01	0.21	-0.25	-0.20	0.31	0.35	2.10
Correlation with Core Private RE	1.00	0.27	0.95	0.88	0.22	0.23	-0.22
Correlation with Equity REITs	0.27	1.00	0.27	0.48	0.86	0.90	-0.14

Sources: As of June 30, 2013; NCREIF, NAREIT, Townsend, Russell, Barclays. Uses NFI-ODCE Index for Core Private Real Estate, FTSE NAREIT Equity REIT Index for Equity REITs, All Value-Added Value Weighted Townsend Index for Value Added Private Real Estate, All Opportunistic Value Weighted Townsend Index for Opportunistic Private Real Estate, Russell 1000 for Large Cap Equities, Russell 2000 for Small Cap Equities, Barclays Capital Aggregate Bond Index for Core Fixed Income.

While this data does not provide groundbreaking discoveries, it does help shed light on how different experiences can be depending on the type of vehicle used. By offering daily liquidity, REITs are inherently more volatile than private funds. Also, because REITs are operating companies as opposed to pure portfolios of properties, they are subject to analysis of valuation factors such as corporate management and strategy (this also helps explain their stronger correlation to stocks). Since private funds are only portfolios of properties and valued so infrequently, investors benefit from a natural smoothing of returns and thus, lower volatility.

Many in the REIT industry criticize the private real estate space for inefficient valuation of portfolios, maintaining that private funds are not representative of the true volatility in the real estate market. The reality is that because real estate is such an illiquid asset class, more updated pricing would likely be identical to prior periods due to lack of transactions in the market and the backward-looking valuation techniques. Unless the current industry appraisal process is found to be inaccurate and changes considerably, the effect of more frequent pricing would be insignificant.

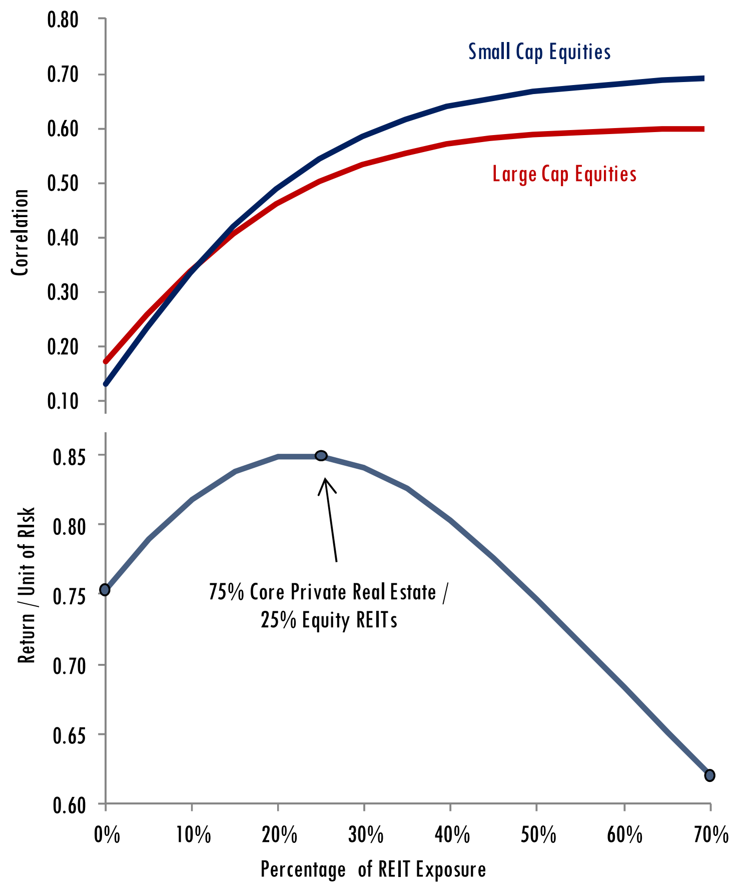
On the other hand, greater liquidity among REITs does lead to timelier pricing. Private funds essentially report on a 4-5 quarter lag compared to REITs, the prices of which better reflect real estate market movements. In Q2 2007, equity REITs suffered their first loss related to the housing crisis, while core open-ended funds did not suffer a loss until Q3 2008. Although there are significant differences between the structures and performance of public and private real estate investments, there may be an advantage to allocating to both in institutional portfolios.

Allocations to both Private and Public Real Estate

Historically, institutions have favored private real estate investments. While there are advantages, including lower volatility, more pure real estate market exposure, and illiquidity premiums, investors should not overlook publicly-traded REITs. To illustrate this, we used the data from the previous table to create portfolios of both core private real estate and REITs. For simplicity and accuracy, we ignored data for value-added and opportunistic indices. There are inherent weaknesses in using non-core or closed-ended peer group data as closed-ended funds do not have the same pressure from their investors for consistent and timely valuations of underlying property values. Also, fund level leverage may not be captured accurately and participation of funds in the peer group varies from quarter to quarter. Due to the stronger historical performance of equity REITs compared to core private real estate funds, increasing a portfolio’s allocation to REITs led to higher returns. Additionally, because REITs have stronger correlations to equities, particularly small cap stocks, increasing exposure to REITs also led to greater correlations in the sample portfolios. Surprisingly, a small allocation to REITs (up to around 25%) actually leads to lower volatility. An explanation for such an effect may be the lag in performance for private real estate funds. Market movements felt among REITs will not affect private fund performance for some time, muting large swings, both positive and negative. It is not until exposures increase to 30% or greater that this benefit is lost.

A combination of the two types of real estate investments also allows REITS to act as a cash buffer. As portfolios redeem positions in their open-ended funds or receive distributions from closed-ended funds, the cash can be invested into the REIT sleeve of the portfolio to avoid diluting exposure to the asset class. When future investments are made or capital is called upon, REIT exposure can be drawn down to fund the outgoing cash flows. Besides cash management benefits, a sleeve of REIT exposure also creates the opportunity to effect tactical allocations.

The problem with REITs is higher correlations with public equities. Private real estate, with limited correlation to equities and slightly negative correlation to fixed income, provides much more ideal diversification benefits than REITs. By increasing exposure to liquid real estate securities, investors lose these diversification benefits. Because many institutional portfolios have different compositions and serve different purposes, the effects of the increase in correlation with equities will be different for everyone. Pension plans with high allocations to fixed income investments, especially those of longer duration, will likely see portfolio optimizer models suggest smaller allocations, if any at all, to REITs. Non-benefit, institutional portfolios with growth mandates will likely see such models favor REIT exposure, as concerns for equity-like correlations are lower. It is important to note that full asset allocation studies would likely include the opportunity to allocate to value added and opportunistic strategies. Also, when considering exposure to real estate, investors should be aware of their current exposure to REITs through allocations to stocks and this should be factored into any asset allocation decisions.



Product Innovation

Exposure to real estate has historically been very different between defined benefit and defined contribution plans. In the defined contribution space, real estate focused products were, and still are in most cases, limited to REITs. While asset managers have been increasing their use of the real estate securities through target-date vehicles and diversified real return strategies over the years, demand from plan sponsors for private real estate offerings is growing. This is especially the case as employers look to participant-driven plans as pension replacements. Although operational limits do exist, recent innovations among asset managers and administrators have led to opportunities to gain exposure to private real estate, through target-date or standalone funds.

Unlike in defined benefit plans, participants are responsible for investing their savings in defined contribution plans, making it much more difficult to include exposure to quarterly valued, illiquid assets. For standalone real estate products, a portion of the portfolio exposure will be to illiquid real estate investments (likely into an existing pooled product) with the remaining portfolio holdings being REITs and cash for liquidity management purposes. With a significant exposure to liquid REITs, higher levels of cash, and/or restrictive redemption terms, vehicles like this can effectively provide participants exposure to private real estate with reasonable liquidity. For target-date strategies, funds may also hold a portion of the real estate allocation in REITs and cash to meet liquidity needs and avoid having to reduce exposure to other liquid asset classes. While product innovations such as this are currently limited in availability, significant investment in the defined contribution retirement space will likely lead to increased offerings in the future.

Summary

Institutions should be aware of the many major differences among private and public real estate investments. The investment experience between these real estate products varies greatly and data analysis of the two should be taken into consideration. For institutions looking to allocate to real estate or revisit their current allocation, exposure to both REITs and private real estate may be a more efficient way to gain exposure to the asset class. While REITs are significantly more volatile and correlated to equities than private funds, a combination of the two may exploit the performance lag in private funds and offer potentially higher returns at lower volatilty with a slight decrease in diversification benefits.

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