

# Ibbotson's Economic and Capital Markets Outlook

## Summary

We remain pessimistic about the chances of avoiding a recession in the eurozone. A financial crisis may or may not happen, depending on policy decisions. If a financial crisis does not occur, there can still be a recession in the U.S., but it will be mild. If it does occur, we can be in for a sharp fall in investment and consumption spending in the U.S., as credit dries up. Memories of 2008 obviously come to mind. But we wonder whether a divided Congress has the ability to step in to contain the damage.

In the opening paragraphs of our Q2 commentary we wrote: "...we expect markets to remain jittery. Higher volatility should be expected. "As predicted, volatility has been high and with it came higher correlation across asset classes. Broadly speaking, investors shunned equities in favor of fixed income; credit in favor of sovereigns; high-yield in favor of investment grade; and international equities in favor of U.S. equities. Whether or not we experience something worse in Q4 than in Q3 will depend on the actions of eurozone leaders. They can still avoid a financial crisis, but immediate action is needed.



**Francisco Torralba, Ph.D.**  
Economist  
Ibbotson Associates



**Thomas Idzorek, CFA®**  
Chief Investment Officer,  
Director of Research and  
Product Development  
Ibbotson Associates



**Daniel Needham, CFA®**  
General Manager,  
Investments Ibbotson  
Associates Australia

## Strategy Summary

### Dynamic Position Thesis

**Overweight of U.S. investment-grade corporate bonds and underweight of U.S. high-yield bonds.** If a recession (or a debt crisis in the eurozone) occurs, not only can credit spreads widen, but they can widen more for issuers with less credit quality. Lower-rated issuers have a higher risk of default and a more difficult time finding market financing at all during a credit squeeze.

**Overweight of U.S. sovereign bonds and underweight of euro sovereign bonds.** Sovereign-bond crisis in the euro zone is still unfolding. The fiscal position of several countries (Greece, Ireland, Spain, Portugal, and Italy) threatens the survival of the currency union, as we know it. We believe deep economic and institutional changes are needed to avert disaster. In the meantime, the markets will besiege the bond market in Europe, pushing up yields and putting downward pressure on the currency.

**Overweight of Japanese equities and underweight of Japanese debt.** The market over-reacted to the earthquake and tsunami in March. The loss in the value of equities is probably not justified even by the most pessimistic estimate of the economic damage of the disaster, in terms of future sales and profits of Japanese companies. In fact, reconstruction activity should prove an economic booster. Sovereign yields, on the other hand, paradoxically decreased, setting the stage for a strong performance of equities relative to bonds.

### Q3 2011 Results

Since inception of the allocation (Aug. 26), the Barclays Capital U.S. Aggregate Credit/Corporate Investment Grade Bond Index returned 0.6% and the Barclays Capital U.S. Aggregate Credit-High Yield Index returned -2.1%.

The Barclays Capital US Aggregate Gov't-Treasury Index returned 6.5%, and the Barclays Capital Euro Aggregate Gov't Index returned -3.9% (in U.S. dollars).

The Topix – 1st Section Index returned -5.1% (in U.S. dollars), whereas the Barclays Capital Asia Pacific Japan Aggregate Government Index returned 5.9% (in U.S. dollars).

# Ibbotson's Economic and Capital Markets Outlook con't

## Strategy Summary (con't)

### Dynamic Position Thesis

**Overweight of U.S. large-cap equities and underweight of U.S. REITs.** The recent outperformance of U.S. property stocks has left them with valuation ratios that can be difficult to sustain in the medium term, and that are hard to justify by fundamentals. Large-cap stocks exhibit the cheapest valuation within the U.S. equity space.

**Overweight of cash and cash-equivalent assets and underweight of equities.** In the event of a recession, a financial crisis, or even in an environment where capital markets perceive that the likelihood of either event is rising, equities are likely to deliver negative returns. Long-term yields are already historically low (the 10-year Treasury yield hit a 40-year low this week), real yields are already well into negative territory, and the potential for further price appreciation of treasuries is very limited.

**Overweight of U.S. large-cap equities and underweight of U.S. small-cap equities.** Small-cap stocks appear over-valued relative to large-cap stocks. They also are probably more sensitive to swings of overall equities, so in the event of a downturn, which we think is more likely than not, small-cap equities are expected to do worse than large-cap.

### Q3 2011 Results

The Russell 1000 total return index returned -14.7%, whereas the FTSE NAREIT U.S.A. total return index returned -14.9%.

Since inception of the allocation (Sep. 22), the Barclays Capital U.S. Short Treasury Total Return index returned 0% and the MSCI All-Country total return index returned 1.3%.

Since inception of the allocation (Aug. 26), the Russell 1000 Total Return Index returned -4%, whereas the Russell 2000 Total Return Index returned -6.7%.

## Economy

Growth rates	2010	2011(p)	2012(p)
<b>World output<sup>1</sup></b>	4.8	3.6 (4.3)	4.1 (4.4)
<b>Advanced economies</b>	2.9	1.4 (2.3)	2.2 (2.6)
United States	3.1	1.1 (2.6)	2.0 (2.5)
Eurozone	2.0	1.1 (1.8)	1.6 (2.0)
Japan	2.5	0.5 (0.8)	2.0 (2.2)
United Kingdom	1.5	1.5 (2.0)	1.7 (2.4)
Canada	3.3	1.4 (2.7)	2.5 (2.7)
Others	4.8	3.8 (4.0)	3.9 (4.3)
<b>Emerging economies</b>	7.4	6.4 (6.9)	6.4 (6.6)
Eastern & Central Europe	5.3	2.9 (5.1)	2.7 (2.2)
Russia	4.4	4.0 (5.3)	3.6 (3.4)
China	9.8	9.3 (9.4)	9.1 (9.5)
India	9.2	7.0 (7.7)	7.5 (8.0)
Brazil	5.0	3.8 (4.3)	3.8 (3.7)

Growth rates	2010	2011(p)	2012(p)
<b>World trade volume<sup>2</sup></b>	12.8	7.5 (8.2)	5.8 (6.7)
<b>Imports</b>			
Advanced economies	11.7	5.9 (6.0)	4.0 (5.1)
Emerging economies	14.9	11.1 (12.1)	8.1 (9.0)
<b>Exports</b>			
Advanced economies	12.3	6.2 (6.8)	5.2 (6.1)
Emerging economies	13.6	9.4 (11.2)	7.8 (8.3)
<b>Consumer prices<sup>1</sup></b>			
Advanced economies	1.6	2.5 (2.6)	1.3 (1.7)
Emerging economies	6.2	6.9 (6.9)	5.6 (5.1)

<sup>(1)</sup> Q4 over Q4 % change; <sup>(2)</sup> year over year % change. (p) Projections. Source: International Monetary Fund ("I.M.F."), September 2011.

## Ibbotson's Economic and Capital Markets Outlook con't

In the third quarter of 2011, the world economy has taken a turn for the worse. A global recession within the next six months is not certain, but the odds are now higher than 50%, in our opinion.

In July, a series of one-time events (disasters in Japan, disruption of oil supply) led us to conjecture that the slowdown observed in Q2 was temporary. As we wrote in the quarterly commentary back then: "...it is likely that the economy will stop decelerating and will regain some strength in Q3." We were wrong. Now that months have passed and economic activity has grown weaker, not stronger, it is clear that more than a "soft patch" was going on (see Figure 1). The structural obstacles that hold back growth in advanced economies have more than offset the cyclical momentum, which normally makes the economy grow faster at the beginning of a new business cycle. Two developments have emerged during Q3.

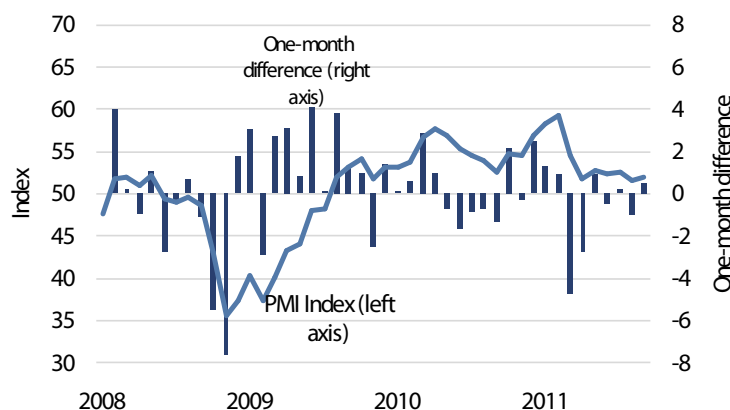
The first is that in advanced economies the fiscal and monetary stimulus supplied in 2009 and 2010 has failed to turn into a self-sustaining recovery of private demand. The explanations vary by country, but a number of countries are held back by one or more of the following headwinds: fiscal consolidation; excess inventory of real estate; high leverage of households; tight supply of credit; lack of confidence in the robustness of the banking sector; and doubts about the long-term solvency of the government.

Concerns about looming sovereign defaults and the solvency of European banks, in turn, have triggered the second feature of Q3: a large increase in financial volatility. Volatility rose initially after the downgrade of the credit rating of the U.S. by Standard and Poor's. Then bad news from the eurozone, and weaker-than-expected macroeconomic data took turns to continue kindling uncertainty. The markets fear that European leaders will not be able to handle a financial crisis. The situation is not as dire in the United States. But there, as well, the country suffers from low employment and an uncertain fiscal outlook.

The economies of emerging markets have coped better with volatility and slowing global growth than advanced economies. Bank credit is growing strongly. Governments have implemented fiscal restraint in an attempt to control over-heating, rather than runaway public debt. If advanced economies tumble, however, commodity prices will crash, world trade will decline (see Figure 2), and global demand will contract, so net exports of emerging countries will suffer. Capital flows will also become even more volatile than they have been during Q3.

Figure 1

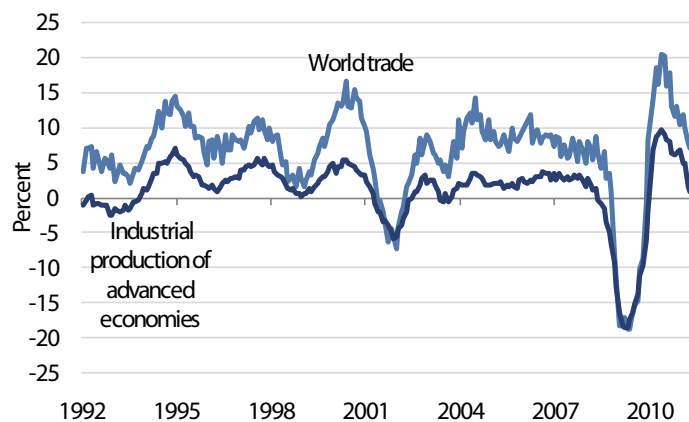
### Global Purchasing Managers Index Manufacturing and services composite



Source: JP Morgan/Markit. Date range: 01/08-09/11

Figure 2

### World Trade and industrial production Twelve month % change



Source: CPB Netherlands Bureau. Date range: 01/92-07/11

### United States

Over the summer, household and business confidence deteriorated markedly (see Figure 3) on concerns about two threats: the downgrade of the U.S. sovereign rating, and rising tensions in Europe. The lack of confidence has fed back into weaker economic activity. In the three months to September, the average monthly payroll change was just 95k, down from 131k in the first half of the year. Personal consumption expenditures, which amount to 70% of U.S. GDP, grew just 0.4% at an annualized rate, in Q2, and are on track to increase 0.4%-0.6% in Q3, down from 2.1% in Q1.

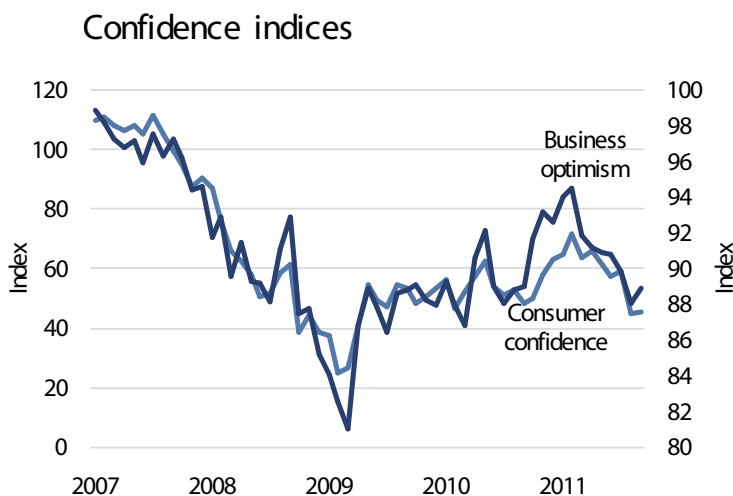
## Ibbotson's Economic and Capital Markets Outlook con't

The dynamics that we observe are reminiscent of the self-reinforcing cycle of depressed sentiment, negative economic data, and further pessimism that characterizes recessions. Indeed, based on statistical models dating back to the 1960s, current economic and financial conditions indicate that it is very likely that a recession starts in Q4 or 2012:Q1.

A new recession, to be sure, had not started by the end of Q3. The job market has shown signs of life. Industrial production was not shrinking as of August and domestic demand, albeit weak, grows at positive rates. But in such a feeble state, the U.S. economy is only one or two shocks away from a contraction. A number of possible shocks, in the short term, come to mind: a threat of default of a European bank; the need to bail out a eurozone sovereign; a disruption in the supply of oil at any major producing country; and a U.S. government shutdown, triggered by the failure to approve by November 18th the continuing resolution to fund the federal government.

Monetary policy is unlikely to have a large effect, since interest rates are already rock-bottom low. Fiscal policy has a fighting chance, but the proximity of the presidential election has polarized the positions of Republicans and Democrats in fiscal matters. In particular, an undue emphasis on reducing government expenditures jeopardizes the extension of the temporary Social Security tax cuts and prolonged unemployment insurance through 2012. Regardless of whether those policies induce employment growth, their cancellation would amount to fiscal tightening, which in the short term is contractionary.

Figure 3



Source: Conference Board, NFIB. Date range: 01/07-09/11

### Eurozone

The economy of the eurozone has begun to falter, even more so than that of the U.S. The uncertainty of the slow-motion crisis is like a wet blanket stifling growth. Quarter-to-quarter GDP growth had already slowed down from 3.1% in Q1 to 0.7% in Q2, in annualized terms. The numbers we have for Q3 seem to point to near-recessionary conditions. The purchasing manager surveys, now available through September, suggest that economic activity started contracting in August, in both the manufacturing and the services industries. Retail sales ex-vehicles fell in August. Consumer sentiment numbers through September are consistent with further declines of household expenditures.

The International Monetary Fund (IMF) puts the growth forecast for the area at 1.6% this year, and 1.1% in 2012. The European Commission itself envisions growth of just 0.8% (annualized) in Q3, and 0.4% in Q4. Activity has deteriorated in the "healthy" as well as the "unhealthy" parts of the currency area. Growth in the Netherlands slowed from 3.4% to 1% between Q1 and Q2; in Germany, from 5.5% to 0.5%; and in Austria, from 3.2% to 2.7%. (In Finland, the other member of the prosperous FINGA club, growth increased from 1.1% to 2.5%.) Further slowdowns are expected in 2012 relative to 2011.

If the prospects seem upsetting for those four, they get utterly depressing for southern Europe. The Greek economy, after shrinking by 2% in 2009 and 4.4% in 2010, can get 5% smaller in 2011 and a further 2% smaller in 2012, according to the IMF. Portugal faces a 2.2% fall in 2011 and 1.8% in 2012. Italy will grow just 0.6% in 2011, and 0.3% in 2012.

The declining growth prospects fuels the vicious loop between growth and sovereign solvency. Less growth makes it harder to bring down the debt-to-GDP ratios. Rising unemployment and stagnant salaries will also make it trickier for politicians to convince German taxpayers to bail out their southern neighbors and avoid a default. During Q3, the markets have added another link to the economic-fiscal loop: the banking sector. The increasing probability of a sovereign default undermines the perceived soundness of the banks, in two ways. Directly, because domestic banks hold a large share of sovereign debt, and indirectly, because weakness of the sovereigns can make it impossible to rescue the banking sector. Spanish banks are also particularly exposed to real estate prices, now in free fall. Finally, and closing the circle, the banking sector undermines the overall economy. As the banking sector is thought to be fragile, funding comes under pressure, loans dry up, and the private sector is starved of credit, weakening the economy further and deepening the fiscal woes.

## Ibbotson's Economic and Capital Markets Outlook con't

There exist four solutions to the sovereign crisis: growth, austerity, default, and devaluation. European leaders will hear of neither default (at least for anybody but Greece) nor devaluation (at least not the nominal kind, which would require a dismemberment of the currency area). The illness, they think, is too much debt. The cure, therefore, is fiscal austerity.

It is true that excess debt is an insurmountable problem for Greece and perhaps for Portugal, Ireland, and Italy as well. An "orderly default" would be the best way to deal with insolvent countries. But the long-run problem of the euro is much harder to solve than mere excess debt. The European project will fail if the currency area does not tackle three problems. First, the lack of competitiveness of the Mediterranean members (Greece, Italy, Spain, Portugal, and to a lesser extent France). Second, the unwillingness (or inability) of the north-east to squeeze their current account surpluses, so that those in the southern periphery can shrink their current account deficits (see Figure 4). "Reform your economies, cut your costs, control your deficits, be like us," the FINGA asks the PIGS (Portugal, Italy, Greece, and Spain).

The north, however, has been such a successful exporter in part because the south runs a trade deficit. It takes two to tango. The north must adopt economic policies that discourage domestic saving and promote consumption, at the same time as the south does the exact opposite.

Third, the eurozone must pursue further fiscal integration and coordination. It is important to insist, however, that fiscal union without economic reform will not work. If the currency union became also a fiscal union, but did not address the competitiveness and asymmetric demand issues, the PIGS would become the Sicily of the eurozone: forever uncompetitive, underemployed, and dependent on northern largesse. And to that the Germans respond with a loud "Nein!" and with good reason.

As the reader can guess, none of these reforms are likely to be addressed thoroughly or quickly. Europe has just agreed to enlarge the powers of the European Financial Stability Fund (EFSF), so that it can buy sovereign debt and provide funding to banks. At present, the lending capacity of the program is 440bn euros (plus 250 billion euros from the IMF, and 60bn raised by the European Commission using the eurozone budget as collateral). That amount is only sufficient to bail out Ireland, Greece, and Portugal. The bond markets are already calculating how much is needed to shore up Italy and Spain, and possibly France and Belgium, as well as the banking systems.

Within the next couple of months, the only institution, which can get the eurozone out of the pinch, is the European Central Bank (ECB). An announcement that the ECB will buy unlimited amounts of sovereign debt would lift the liquidity problems of both sovereigns and banks, and buy the eurozone time to deal with the long-term issues.

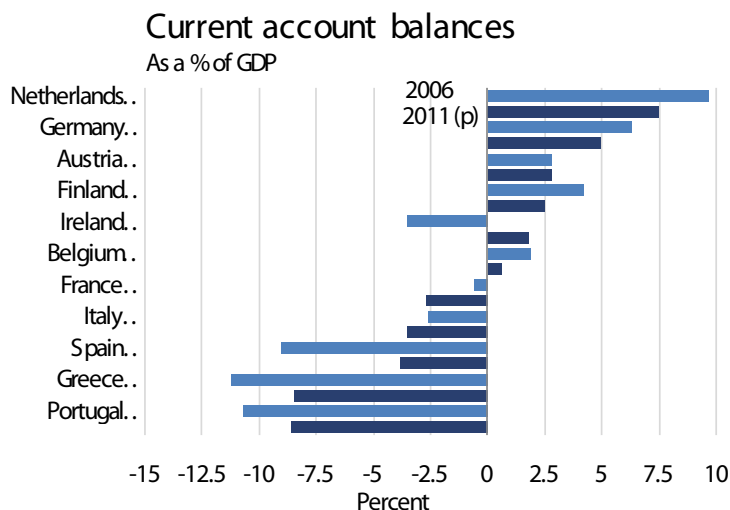
Within the next 6 to 12 months, it is possible (not likely), that the eurozone members agree to a further expansion of the EFSF. That would require extending its lending capacity to the tune of 2-3 trillion euros, according to informed analysts. An amount of that magnitude would reassure the markets that Europe is capable of dealing with all foreseeable sovereign and banking rescues. In fact, the commitment itself might make it unnecessary that the EFSF ever needs to bail out anybody in the future.

An extension of the EFSF of that magnitude would buy them a couple of years. But we believe a eurozone without economic and fiscal reform is a losing allocation over the next decade.

### Other advanced economies

After growing briskly in 2010:Q4 and 2011:Q1, Canada's economy shrank at an annualized rate of 0.4% in 2011:Q2, partly as a result of disruptions to auto production stemming from Japan's disasters, and partly because exports to the U.S. plunged in response to soft demand. The current account deficit swelled to 14.6% of GDP, up from less than 10% in both 2011:Q1 and 2010:Q4. Corporate profits after taxes declined in Q2 relative to Q1. Canada had not seen a quarter-to-quarter decline in aggregate profits since mid 2009.

Figure 4



Sources: IMF (WEOSep. 2011, Table A11). (p) projected.

## Ibbotson's Economic and Capital Markets Outlook con't

In the months since June, things have not improved. Housing starts contracted month-to-month in both July and August, and payrolls fell in August, following a small increase in July. Retail sales fell 0.6%, month to month, and new vehicle sales dropped 6.2%. The business barometer of the Canadian Federation of Independent Businesses shows a marked slowdown of business performance since June. As a counterpoint to this negative data, manufacturing shipments and inventories grew at a healthy pace in July. Real GDP, which in Canada is reported monthly, grew 0.3% on a month-to-month basis.

In the near term, holding back Canada's economy can be the drop of commodity prices and fiscal austerity, as the federal government is firmly committed to balancing the budget in four years. Monetary policy, at least, is not contractionary. Moderate inflation, the slowing economy, and an unusually dangerous global outlook have convinced the central bank to adopt a neutral stance, claiming that "the need to withdraw monetary policy stimulus has diminished."

The Canadian dollar depreciated sharply versus the U.S. Dollar during Q3, following the pullback of commodity prices and the demand for the American currency. As of the end of the quarter, the loonie traded at \$0.95, which is cheap but still significantly above the \$0.77 that we saw in the depths of the 2008 crisis. Continuing angst over the eurozone crisis should put downward pressure on the Canadian dollar versus the U.S. dollar, helping exporters in the medium term.

The recovery in the United Kingdom is at risk of derailing. Output growth slowed to 0.4% in Q2 from 1.6%, at an annual rate. Although the path of output has been affected by temporary factors, the underlying rate of growth has also moderated. For example, the trend of manufacturing output and new orders over Q3 as a whole were markedly weaker than in both Q1 and Q2. Business slowed down in the services industries as well, although to a lesser extent than in manufacturing.

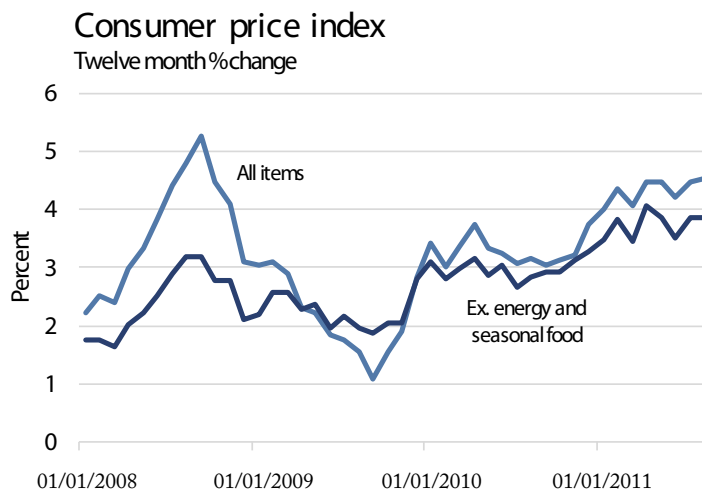
Two thirds of economic activity in the U.K. is accounted for by consumer spending, and the squeeze on households' real incomes, plus the fiscal consolidation, are likely to continue to weigh on domestic spending. Retail sales did not grow at all in August, after posting moderate increases of 0.8% and 0.3% in July and June, respectively. Consumers and businesses could support their spending by borrowing more or saving less. However, they will find it hard to borrow from the banks. The strains of bank funding markets and wariness of the over-indebtedness of the private sector may also inhibit the availability of credit. And we doubt that households and businesses will feel confident enough

to tap into their savings. Indicators of sentiment across all sectors (consumers, manufacturers, service-providers, and construction business) have plunged between July and September.

The pace of expansion among the UK's main export markets (U.S. and eurozone) has slackened, as explained in the sections above. We do not see a slowdown of the UK's exports, as of July, but it is more than likely that a global recession, or even just a slowdown, would bring down the global level of trade dramatically. Exporters may get a lift from the weakness of the British pound, at least relative to its average value in 2010, but that would be a minor buffer if global demand shrinks.

Consumer Price Index inflation rose to 4.5% in August, has been above 4% for the entire year to date, and is likely to rise above 5% in the next month or so, according to the Bank of England (BoE). Core inflation remains above 3.5%. (See Figure 5.)

Figure 5



Source: FactSet, UK's ONS. Date range: 01/08-08/11

The BoE, however, has learned to live with high inflation and does not plan on doing anything about it. In fact, at its most recent meeting on October 6 the Monetary Policy Committee (MPC) maintained the policy rate at 0.5%, and voted to increase the size of its asset purchase program by British Pound Sterling (GBP) 75bn to a total of GBP 275bn. The MPC justifies the monetary loosening on the grounds that the impact of higher energy and import prices, which has increased inflation in the recent past, is expected to wane in 2012. A weak economy, excess capacity, and high unemployment also add to the disinflationary pressures. The BoE estimates that inflation will undershoot the 2% target in the medium term.

## Ibbotson's Economic and Capital Markets Outlook con't

Japan might well be the only large advanced economy where the pace of growth is accelerating. Japan's economic activity has been picking up as the supply-side obstacles caused by the quake have been almost completely ironed out. The disasters of early March were the main factor behind the 3.7% drop of output in Q1, and 2.1% in Q2 (quarter to quarter, annualized). GDP growth received a big boost from government consumption and investment, with a contribution of 1.1% to quarter-to-quarter growth in Q2. The replenishment of inventories provided another 0.4%. Consumer expenditures and private investment did not add to total demand, but at least they recovered from negative rates of growth in Q1. Exports plummeted, as manufacturers faced logistical restrictions to produce and deliver goods.

The data available for Q3 shows that export levels had almost recovered to pre-quake levels by July (see Figure 6). Industrial production is reaching the level seen one year ago and housing starts grew briskly in July and August. The unemployment rate fell to 4.3% in August, from a high of 4.7% in April.

Figure 6



We expect higher growth in Q3 than in Q2. Replenishment of inventories and the support of public spending for the reconstruction of infrastructure should continue powering growth for a few more months. Private demand will probably gain some momentum, as suppliers return to more normal production levels, employment recovers, incomes rise, and corporate sales and profits return.

In 2011:Q4 and beyond, however, the Japanese economy, just like any other, faces strong headwinds. The slowdown of the U.S.

and the eurozone, the strong appreciation of the yen (which is at its highest level in the last 20 years against the dollar), and the consequent stagnation of demand for cars and IT-related goods will inevitably lead to the contraction of exports. Thus, while private forecasters put Japanese growth in Q3 at 6%-7%, at an annual rate, in Q4 growth is expected to moderate to 2%-3%, and in 2012 growth rates are forecast to return to the 1%-2% range. We suspect that those forecasts attach a fairly low probability to a global recession in 2012. In that event, we foresee negative GDP growth in Japan next year.

### Asia (ex Japan)

China remains the largest bright spot in the world economy. Year-on-year growth was 9.5% in Q2. In 2012, the country's output is expected to increase 9%: less than the average 10.5% during 2000-2007, but still impressive. In the 12 months to August retail sales rose 17%, roughly unchanged for the last six months. Consumer confidence about the future has only grown stronger. The pace of investment in "urban fixed assets," where real estate carries a lot of weight, has not eased either, with one-year increases of 25% since February.

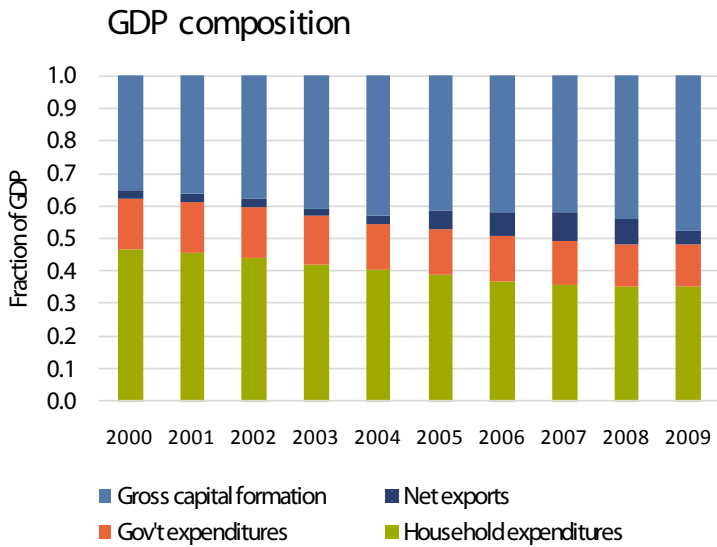
Data on manufacturing activity paint a less optimistic picture. The year-on-year growth rate of industrial production has declined to 13.5% in August, from 15.9% in June. The latest Markit/HSBC Purchasing Managers' Index report, released on Sep. 30, suggests that activity in the manufacturing sector slowed down in September as well. Respondents to the PMI survey indicated that weaker demand had contributed to the decline in overall new business. They also noted that new export business fell slightly.

Efforts to withdraw credit stimulus—through administrative limits, higher interest rates, and higher reserve requirements for banks—seemed to have succeeded to moderate property price inflation and credit growth. Inflation, the main worry of the People's Bank of China (PBoC) in the first half of 2011, also seems to be on the mend. The overall CPI rate slowed to 6.2% in August, from 6.5% in July, and core inflation has been stable over the last few months.

What China's leadership has not addressed is the skewness of growth towards investment (see Figure 7). The contribution of net exports to GDP growth has shrunk, as the growth of net exports stabilizes. But the contribution of consumption to GDP growth has diminished over the last decade. Even now, when the economy is booming, surveys of consumers point to stable, or slightly declining, consumption growth, and a strong preference for saving or investing in property or financial assets, rather than spending. Investment, therefore, drives an ever larger share of overall growth.

# Ibbotson's Economic and Capital Markets Outlook con't

Figure 7



The risk for China is that a slowdown in advanced economies brings investment growth to a halt. Moreover, much of the credit for investment projects is implicitly subsidized, because the government caps the remuneration of savings. Artificially cheap funding, plus government-directed projects, often add up to inefficient allocation of capital and mismanaged banks. We only can hope that the whole thing does not end up in a high-speed train wreck.

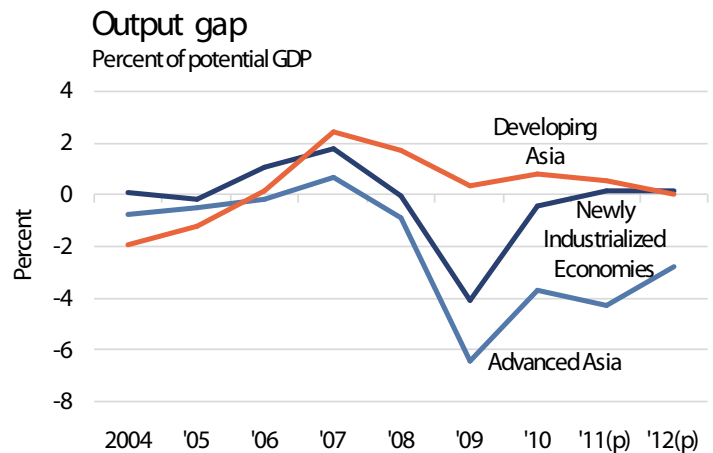
As we detailed in our commentary in July, we downplay the effects of a Chinese crash, at least relative to a eurozone sovereign crisis. Besides, if a global recession gains traction in late 2011 or early 2012, its impact would not be felt immediately in China. The Chinese government might step in with investment-heavy spending projects. In the short run, that would soften the blow to the Chinese and the global economy. In the long run, it would only exacerbate the existing over-investment in industrial capacity and real estate.

Elsewhere in Asia, activity remained solid in the first half of 2011, only moderated by the disruption of supply chains in the spring, and weaker external demand. Some countries have experienced a slowdown of export growth, but their economies remain supported by accommodative policies, robust growth of credit and asset prices, and strong demand for labor. Domestic demand would dampen the impact of a global slowdown, but not completely, as most countries in the region still rely on net exports and transfers. The International Monetary Fund projects most Asian economies to run sizable current account surpluses in the next five years.

In India, growth is expected to top 7% in 2011 and 2012, led by private consumption. A key challenge there is bringing down inflation, which has actually increased to almost 10% during the year. Interest rate increases by the central bank are barely outpacing increases in inflation and credit growth is still strong.

In the advanced countries in the area (Korea, Taiwan, Hong Kong, and Singapore), growth is expected to slow from around 8.5% in 2010 to 4.5% in 2011-12, as the large output gap created by the Great Recession of 2008-09 has been closed by now (see Figure 8). Their external sectors will benefit from the low real exchange rates enjoyed, on average, since 2008.

Figure 8



Sources: IMF (WEOSep. 2011). Date range: 2004- 2012.  
NIEs: Hong Kong, Korea, Singapore, and Taiwan. (p) projection.

## Capital Markets

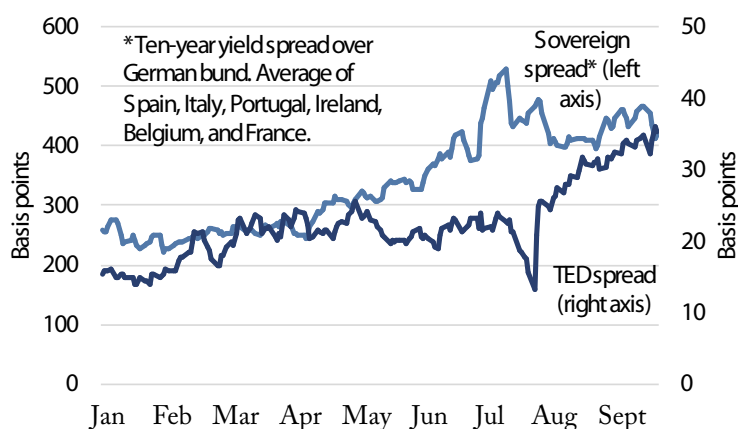
In the opening paragraphs of our Q2 commentary we wrote: "...we expect markets to remain jittery. Higher volatility should be expected." As predicted, volatility has been high and with it came higher correlation across asset classes. Overall, equity markets moved in unison, and sovereign yields in advanced countries dropped, as if on cue. Broadly speaking, investors shunned equities in favor of fixed income; corporate in favor of sovereigns; high-yield in favor of investment grade; and international equities in favor of U.S. equities.

Volatility came hand in hand with strains in interbank markets and widening sovereign spreads in the eurozone (see Figure 9).

# Ibbotson's Economic and Capital Markets Outlook con't

Figure 9

Ted spread and sovereign spreads



Source: FactSet. Date range: 01/11-09/11

The beneficiaries, if one is allowed to use that adjective, were harbor currencies such as the dollar, the yen, and the Swiss franc, as well as domestic sovereign debt. These moves were largely motivated by fear, not by fundamentals. Short-term timing of the market has thus become even harder than usual. The slightest hint of progress, or failure, in the process of putting together a rescue of the eurozone sways the markets. In this environment, it is important not to lose sight of the factors that can prevail in the medium to long term.

We think it is appropriate to adopt medium-term portfolio allocations consistent with the following events, in descending order of likelihood: (a) a recession in the eurozone; (b) a mild recession in the U.S.; and (c) a financial crisis followed by a deep global recession.

## Fixed income

Sovereigns rallied in advanced economies. Out of the 23 advanced countries that we follow, the ten-year yield went down in 20 (the exceptions were Italy, Portugal, and Greece).

Whether justified or not, the markets have taken refuge in sovereign debt, versus corporate debt, equities, or emerging market assets. Nothing new here. What is perhaps surprising is that the rally has coincided with rising sovereign risk premiums. The price of credit default spreads (CDS) spiked over the quarter. Countries, whose solvency would have never been questioned, such as Denmark, France, or Japan, are all being priced with an implied probability of default of more than 10% (see Figure 10). (In the table below, the assumed recovery rate varies by country, which explains why the relationship between default probabilities and CDS quotes is not monotonic.)

Figure 10

	CDS price (as of Sep. 30)	Cumulative prob. of default (within 5 yrs.)
Greece	5,157	91%
Portugal	1165	61%
Ireland	754	46%
Italy	453	33%
Spain	373	28%
Belgium	255	20%
Russia	287	19%
China	179	15%
France	176	15%
Austria	160	14%
Brazil	186	13%
Japan	143	11%
Germany	106	9%
USA	52	5%

Greece is almost unanimously believed to be insolvent. As of the end of Q3, the probability of default implied by the price of credit default swaps is 90%-100%, assuming a recovery rate of 30%-40%. Portugal is not far behind, with a 61% probability.

The news last quarter was the entry of Italy in the list of the world's top-ten riskiest sovereigns. Taking those CDS quotes at face value, Italy's debt is dodgier than Egypt's and Romania's. The markets appeared to react to concerns about the high debt-to-GDP ratio and whether the austerity package announced by the Italian government will be enough to reduce debt. A key factor to understand the CDS numbers are the banking sectors of those countries. As we explained in a previous section, sovereign risk and financial risk feed off each other.

In the U.S., the announcement of a swap of long-term debt for short-term debt by the Federal Reserve, plus the stated intention to keep interest rates exceptionally low "at least through mid-2013" supported lower long-term yields, on top of the mentioned flight to safety. If market volatility and macroeconomic weakness continue to reign, as we expect, it is likely that Treasuries go higher, with the ten-year yield hitting 1%-1.5%, from the current 2%. In Japan, the ten-year bond decoupled from the U.S. yield around mid-July.

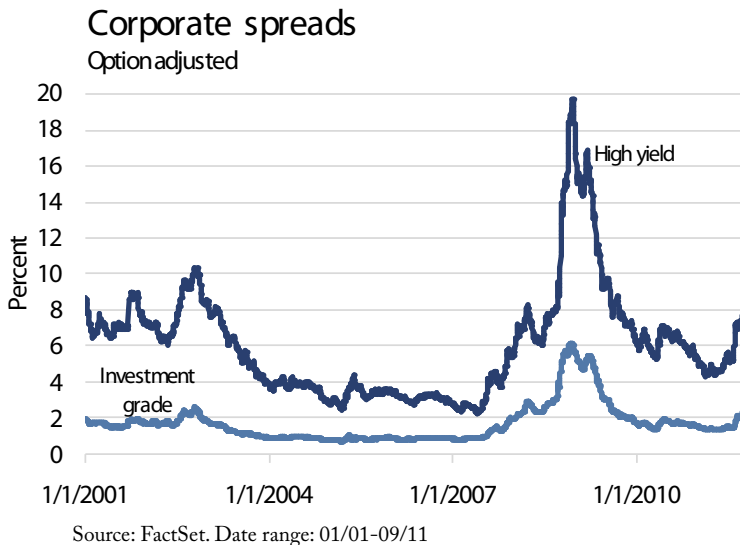
There are no signs of flight from the sovereign debt of the U.S. and Japan. However, without more ambitious fiscal consolidation, we

## Ibbotson's Economic and Capital Markets Outlook con't

cannot rule out a rise in government yields in the medium term. This rise in long-term yields could happen in different ways. Investors could shift their portfolios toward corporate or emerging market (EM) debt. That would narrow credit spreads and EM spreads. Investors could start putting more weight in the short end of the curve, increasing the term premium. Finally, investors could shun sovereigns entirely, hoarding cash and precious metals.

Long-term corporate bond spreads rose in the U.S. and Europe, although not in Japan. For BBB-rated U.S. corporate borrowers, spreads increased by around 100 basis points (bp) to 3.1% – well above the 2.1% average since 1997. Below investment-grade, quality spreads rose even more substantially: 240bp for BB and 290bp for B. If the financial crisis of 2008 is any guide, spreads could go much higher (see Figure 11). For additional footnote information on ratings please visit [www.standardandpoors.com](http://www.standardandpoors.com).

Figure 11



Leaving aside the financial sector, large corporations are in a good position to weather a liquidity drought. They have accumulated large amounts of liquid assets, paid off many short-term liabilities, and refinanced their debt at low interest rates. Small businesses would suffer more, however, since they are more dependent on bank loans and sometimes on consumer credit.

### Equities

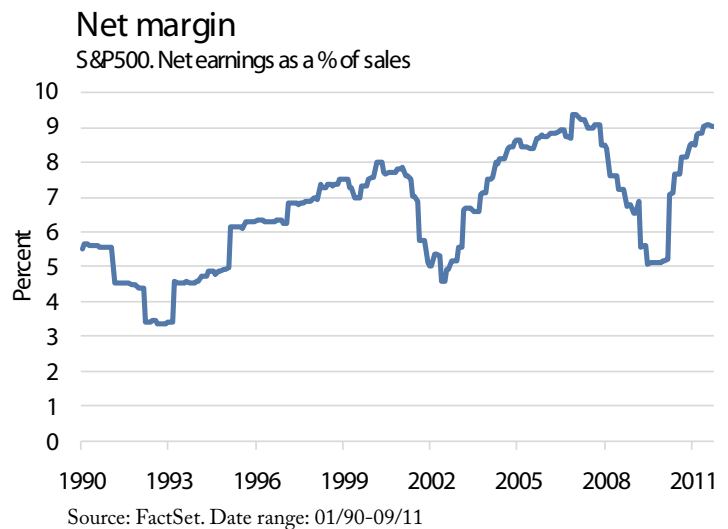
Equity markets suffered a horrible quarter as the growth outlook deteriorated and the eurozone debt crisis took its toll on bank stocks. As of the closing of the quarter, several European banks were trading below their book value. The

pullback in prices has left valuations much less stretched, from the point of view of long-term models such as the cyclically-adjusted price-earnings ratio, or long-term mean-reversion of margins and price-earnings multiples.

Moreover, in an environment of high volatility, fundamentals seem to weigh less than risk premiums. Attractive price multiples are no guarantee of positive future returns. We expect that equity markets will continue to be dominated by wild swings in the short term, as the markets figure out whether the global economy tilts towards recession, or just slow growth, and European leaders keep work to flesh out a response to the sovereign-cum-banking crisis.

Up to 2011:Q2, earnings of S&P 500 companies have been increasing for ten consecutive quarters. Operating margins increased again, to 9.5%, beating another historical maximum (see Figure 12). Q3 earnings will start trickling out in earnest just a couple of weeks from now, but estimates are slightly less optimistic than in previous quarters. The consensus forecast is a one-year 14% increase in earnings, down from 19% in Q2. For the year as a whole, the consensus estimate implies a 17% increase in 2011, and a 14% in 2012.

Figure 12



We do not expect big changes in earnings in Q3. The relevant question is; what will happen in Q4? The estimate for Q4 earnings has declined 1.8% over the last three months. The actual figures for Q3 will offer meaningful guidance as to where earnings will go in the home stretch of 2011 and in 2012. As we have mentioned several times in the past, our concern is that operating margins have been driving the growth of earnings since 2009. Margin growth

## Ibbotson's Economic and Capital Markets Outlook con't

is achieved through improving efficiency, cutting costs, bringing unused capacity online, and controlling input prices. None of those processes can continue forever, and so margin growth is impossible to perpetuate ad infinitum. At some point, sales growth needs to kick in. And over the last two years, the top line has been growing only timidly. In the current business cycle, sales have not caught up with their long-term trend, in spite of the fact that more than 50% of sales come from outside the U.S., for S&P500 companies.

Elsewhere in advanced countries, stocks were hardest hit in Europe, by region, and for financials, among sectors. The UK's FTSE 100 declined 13% and Germany's DAX surrendered 25%, but European financials lost 28%. The hesitation of European leaders to address the crises has understandably unnerved investors. In Q4, we expect more volatility in those markets as well. Japan's Topix did not fare too badly, shedding only 9% over the quarter.

### Emerging markets

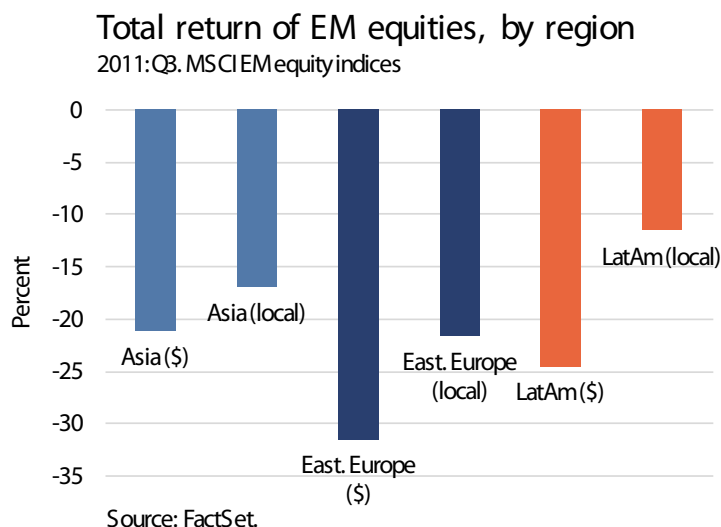
Emerging market (EM) bonds delivered a -1.8% return during Q3, when measured by the JP Morgan EMBI Global total return index. Global volatility, however, did not wreak havoc in the EM sovereign market until September, when the index lost 4.2%. The yield to maturity ended the quarter at 6.5%, from 6% on June 30. The EMBI spread rose to 450bp from 288bp at the beginning of the quarter. (See Figure 13.) Most of the widening happened in September. Yield spreads rose particularly in Eastern Europe, which is the region to be most affected by a recession or financial crisis in the eurozone. It also reflects the sensitivity of economies like Belarus, Ukraine, and Russia, to expected declines of commodity prices.

Figure 13



In local currency, EM equities lost about the same as U.S. equities. In dollar terms, however, they lost a lot more: 23% for the MSCI EM Total Return Index, versus 14% for the S&P500, as overall investment flows favored the U.S. Dollar. EM Asia lost the least in dollar terms (21%), whereas EM Eastern Europe experienced the steepest losses (32%). Latin America yielded a 25% loss. (See Figure 14.)

Figure 14



In theory, EM assets provide valuable diversification opportunities. However, the world is still a long ways from the decoupling between advanced and EM markets. The reason stems from both economics and finance. First, EM economies are still largely dependent on spending in advanced countries, as reflected by their large current account surpluses, as a whole. Second, historically, periods of heightened volatility have been accompanied by higher correlation across stock markets. And third, there has also been a long-term increase in the correlation across domestic equity markets, as more and more EM economies become more integrated with the world economy, and more managers add EM assets to their portfolios. Diversification, at least for now, has only become harder.

For that reason, the risk premium argument is likely to trump the fundamentals argument for EM assets as well. We think that EM assets are a long-term winning allocation, but we do not expect them to outperform their counterparts in developed markets if financial turmoil and a global recession occur.

## Ibbotson's Economic and Capital Markets Outlook con't

### Commodities

All commodity price indices fell over Q3. The group that lost the least was food and beverages, with a 3.2% decline; the group that took the biggest hit was agricultural raw materials, with a 7.3% loss. In between were fuels, with a 3.4% loss, and industrial metals, with a 4.9% decline. (See Figure 15.) Gold and silver posted gains of 15.8% and 5.4%, respectively, but speculative trading weighs heavily in the price of those two metals. The quarterly losses were the worst since 2008, on concerns that there may be another global recession.

Aside from those worries, crude oil prices may have been depressed by increased output. OPEC producers ramped up their output over the last few months, to 30.1mn barrels per day (bpd) in August. To explain the increase, consider that OPEC is de facto operating without production quotas. The organization failed to agree to a new quota at their June 2011 meeting. At that meeting, Iran and other members opposed the Saudi proposal to increase production. In the absence of an agreement, however, OPEC members stopped behaving in a fully coordinated manner and production has crept up. The next OPEC meeting is scheduled for December 14, 2011. The global macroeconomic outlook has changed dramatically since their previous meeting, so we expect Saudi Arabia to be least forceful pushing for increased output than they were in June. Paradoxically, that is not a guarantee that output will go down, if the organization does not agree to a quota.

Adding to the negative pressure on oil prices, the Qaddafi regime finally fell in Libya, raising expectations that at least some Libyan output will be back online in the near future. Libyan officials mentioned that they have the goal of reaching a production of 0.8-1 million barrels per day within six months. Pre-war output was around 1.5 million barrels per day.

Agricultural products used for the production of foodstuffs and feedstuffs held about even for the first two months of the quarter, then lost a little in September. The major exceptions were rice, sugar, peanuts and peanut oil, and tea, all of which rose during Q3. Rice rose sharply due to the introduction of a scheme by the Thai government to subsidize domestic production. We expect the surge to be reversed in the medium term, if no shocks arise in other major producers, as the increased output is brought to the market. Agricultural raw materials (which include wool, cotton, rubber, and timber, among others) did poorly across the board. Just like industrial metals, those commodities are very sensitive to global industrial production.

In the industrial commodity space, copper grabbed the headlines in the last few weeks, by falling almost 8% in September. "Dr. Copper" is believed to be a good economic forecaster. Over the quarter, however, the largest declines were for tin, nickel, lead, and aluminum.

About gold, our view is that prices are very sensitive to sentiment and to the relative supply of alternative assets, such as Swiss francs, yens, and Treasury debt. The slide of the price of gold during September should serve as a reminder of the risks of buying the precious metal. In the short term, and from a technical perspective, the September mini-crash brought gold back to its two-year channel. In the medium to long term, the fundamentals underpinning the price of gold range from thin to non-existing. Hyperinflation and "currency debasement" are not around the corner. If anything, deflation is more likely than inflation in the medium term.

In our baseline scenario, where we attach a high probability of recession in the eurozone and in the U.S., commodity prices would decline in the medium term (6 to 18 months). The most affected groups, most likely, would be industrial metals and energy, followed by agricultural raw materials. Those commodities are the most sensitive to the business cycle.

### Real Estate Investment Trusts (REITs)

U.S. REITs fell over Q3, as European sovereign debt concerns and U.S. recessionary fears negatively weighed on investor sentiment. All U.S. REIT sub-sectors delivered negative returns over the quarter. Hotels, as the most economically sensitive sub-sector due to the short-term nature of hotel leases, were the worst performers. Against a "risk-off" market background, it was the small-cap, high-leverage, or short-term lease U.S. REITs that generally underperformed large-cap. The latter generally benefit from stronger balance sheets, longer property leases, or higher-grade property assets.

Following the market sell-off, valuations for U.S. REITs no longer look very expensive, but do not appear to be at compelling valuation levels either. As of the end of September, while U.S. REITs were trading at a modest discount to net asset value (NAV), implied cap rate levels are not far away from the cap rate levels reached during the property asset value peak in 2007. The Price-to-Funds Flow from Operations (P/FFO) ratio remains high relative to the historical average and U.S. REITs remain overvalued on a number of measures. The major potential downsides risks on the horizon remain a less favorable capital funding environment than the recent past, or the U.S. economy entering into a recession.

## Ibbotson's Economic and Capital Markets Outlook con't

Within non-U.S. REITs, risk aversion also featured prominently. European REITs fell on tandem with the broader European equities market, due to concerns about the inability of European governments to adequately address the sovereign crisis. European REITs are trading at discounts to NAV of around 20%. However, doubts about the capital positions of several European banks and lowered economic growth forecasts for the European region, point to a less favorable debt-funding environment for European REITs in the future. In general, higher leveraged and more cyclically exposed property stocks experienced the greatest underperformance, with Italian and Austrian REITs amongst the worst performers.

Within Asia, residential development stocks underperformed Asian REITs, and remain at large discounts to reported NAV due to concerns about future government austerity measures aimed at dampening speculative residential investments. While Australian REITs delivered a negative return over the quarter, they were amongst the best performers on a global scale as they generally are less leveraged. Also, the Australian economic growth outlook is better than that of advanced countries in the northern hemisphere.

### Total returns to select indexes in 2011:Q3

U.S. Stock Indexes (Total Return in U.S. \$)	
Russell 3000	-15.3%
Russell 3000 Growth	-13.9%
Russell 3000 Value	-16.6%
S&P 500	-13.9%
Russell Top 200	-12.8%
Russell Top 200 Growth	-10.3%
Russell Top 200 Value	-15.2%
S&P 100	-12.1%
Russell Mid Cap	-18.9%
Russell Mid Cap Growth	-19.3%
Russell Mid Cap Value	-18.5%
Russell 2000	-21.9%
Russell 2000 Growth	-22.3%
Russell 2000 Value	-21.5%
S&P 600	-19.8%
FTSE EPRA/NAREIT U.S. REIT	-14.9%

Non-U.S. Stock Indexes (Total Return in U.S. \$)	
MSCI EAFE Growth	-19.0%
MSCI Europe Growth	-22.6%
MSCI Japan Growth	-6.4%
MSCI Canada Growth	-18.8%
MSCI Emerging Markets Growth	-22.5%
MSCI EM Emerging Europe	-29.5%
MSCI EM Emerging Latin America	-24.5%
FTSE EPRA/NAREIT Developed x US REITs	-19.1%
U.S. Bond Indexes (Total Return in U.S. \$)	
Barclays Capital U.S. Aggregate	3.8%
Barclays Capital U.S. Government Long	23.9%
Barclays Capital U.S. Government 1-2 Yr	0.3%
Barclays Capital U.S. Corporate High Yield	-6.1%
Barclays Capital 1-3 Month Treasury Bill	0.0%
Non-U.S. Bond Indexes (Total Return in U.S. \$)	
JP Morgan GBI Global ex U.S.	1.5%

Source: Morningstar, Inc.

## Ibbotson's Economic and Capital Markets Outlook con't

*This commentary is for informational purposes only. Nothing in this commentary should be construed as an offer/recommendation to buy or sell a particular security. The data and/or information noted are from what we believe to be reliable sources, Ibbotson Associates has no control over the methods or means used by these sources to collect their data and/or information; therefore, we cannot guarantee their accuracy or completeness. The opinions and estimates noted herein are accurate as of a certain date and are subject to change. The indices referenced are unmanaged and cannot be invested in directly. The performance data shown represents past performance. Past performance does not guarantee future results.*

*This commentary contains certain forward-looking statements. We use words such as "expects", "anticipates", "believes", "estimates", "Forecasts", and similar expressions to identify forward-looking statements. Such forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause the actual results to differ materially, and/or substantially from any future results, performance or achievements expressed or implied by those projected in the forward-looking statements for any reason.*

Performance Table as of 9/30/11	Ticker	1 Month	3 Month	YTD	1 Year	Since Inception*	Total Expense Ratio	What You Pay**
Ibbotson Conservative ETF Asset Allocation I		-2.11%	-2.19%	0.54%	1.83%	3.17%	0.90%	0.69%
Ibbotson Conservative ETF Asset Allocation II	CETFX	-2.11%	-2.20%	0.36%	1.65%	2.86%	1.15%	0.94%
Ibbotson Income & Growth ETF Asset Allocation I		-4.24%	-6.23%	-3.02%	0.23%	1.18%	0.82%	0.69%
Ibbotson Income & Growth ETF Asset Allocation II	IETFX	-4.28%	-6.28%	-3.29%	-0.10%	0.92%	1.06%	0.94%
Ibbotson Balanced ETF Asset Allocation I		-6.37%	-10.38%	-6.65%	-1.65%	-0.63%	0.77%	0.70%
Ibbotson Balanced ETF Asset Allocation II	BETFX	-6.32%	-10.40%	-6.78%	-1.83%	-0.86%	1.01%	0.95%
Ibbotson Growth ETF Asset Allocation I		-8.39%	-14.31%	-10.36%	-3.58%	-2.67%	0.78%	0.71%
Ibbotson Growth ETF Asset Allocation II	GETFX	-8.28%	-14.29%	-10.47%	-3.81%	-2.93%	1.02%	0.96%
Ibbotson Aggressive Growth ETF Asset Allocation I		-9.42%	-16.29%	-12.24%	-4.70%	-4.14%	1.01%	0.72%
Ibbotson Aggressive Growth ETF Asset Allocation II	AGTFX	-9.48%	-16.29%	-12.31%	-4.88%	-4.38%	1.22%	0.97%

\*Fund inception 4/30/07.

\*\*What You Pay reflects the Adviser's decision to contractually limit expenses through April 30, 2011. Please see the prospectus for additional information.

**Performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than the original cost. Current performance data may be higher or lower than actual data quoted. For the most current month-end performance data please visit [www.fivitfunds.com](http://www.fivitfunds.com).**

**The performance shown here does not reflect the impact of costs associated with variable contracts, qualified pension and retirement plans or registered and unregistered separate accounts which when deducted will reduce the return figures shown.**

*Shares of the Portfolios are offered only to participating insurance companies and their separate accounts to fund the benefits of Variable Contracts, and to qualified pension and retirement plans and registered and unregistered separate accounts.*

*An investment in the Portfolios involves risk, including loss of principal. The Portfolios allocate investments among multiple ETF asset classes including: U.S. equity, fixed income, real estate and international ETFs. Asset allocation and diversification do not assure a profit or protect against down markets. The stocks of smaller companies are subject to above-average market-price fluctuations. There are specific risks associated with international investing, such as currency fluctuations, foreign taxation, differences in financial reporting practices and rapid changes in political and economic conditions. Real estate investments are subject to specific risks, such as risks related to general and local economic conditions and risks related to individual properties. Fixed income securities are subject to interest rate risk, prepayment risk and market risk.*

**An investor should consider investment objectives, risks, charges and expenses carefully before investing. To obtain a prospectus, which contains this and other information, please contact your investment professional. Read the prospectus carefully before investing.**

## Ibbotson's Economic and Capital Markets Outlook con't

### Appendix: Index definitions

*EPRA/NAREIT Global ex US REITs Index: Capitalization-weighted index representing the full universe of publicly traded REITs outside the United States.*

*FTSE NAREIT All REIT Index: Capitalization-weighted index representing the full universe of publicly traded U.S. REITs, including those companies that do not meet the minimum size rule, liquidity criteria, or free float adjustments.*

*FTSE NAREIT Equity REIT Index: Market-capitalization-weighted index that includes healthcare and net lease REITs but excludes real estate operating companies. There is no minimum size or liquidity requirement for an equity REIT to be included in this index.*

*FactSet U.S. Real Estate Investment Trusts Aggregate: Market-capitalization-weighted index of U.S. REITs stocks, not limited to equity REITs but including mortgage and hybrid REITs as well.*

*MSCI EAFE Index: This index tracks non-U.S. stock funds (EAFE refers to Europe, Australasia, and Far East). The EAFE Index is an aggregate of 21 individual country indexes that collectively represent many of the world's major markets.*

*MSCI Europe Index: Capitalization-weighted index tracking companies within the MSCI EAFE Index listed on European stock markets.*

*MSCI Japan Index: Capitalization-weighted index tracking companies within the MSCI EAFE Index listed on Japanese stock markets.*

*MSCI Canada Index: Capitalization-weighted index tracking the Canadian stock market.*

*MSCI Emerging Markets Index: Capitalization-weighted index measuring the total returns of stocks from a number of emerging markets across the world.*

*MSCI EM Emerging Europe Index: Capitalization-weighted index measuring the stock market's performance in mainly Eastern European emerging markets.*

*MSCI EM Emerging Latin America Index: Capitalization-weighted index measuring the performance of the stock market in Argentina, Brazil, Chile, Colombia, Mexico, Peru, and Venezuela.*

*MSCI All Country Total Return Index - a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of developed and emerging markets.*

*Russell 3000 Index: Market-capitalization-weighted index that includes the 3,000 largest U.S. companies based on total market capitalization. The Russell 3000 Index represents 98% of the investable U.S. equity market.*

*Russell 3000 Growth Index: Market-weighted total return index that measures the performance of companies within the Russell 3000 Index having higher price-to-book ratios and higher forecasted growth values.*

*Russell 3000 Value Index: Market-weighted total return index that measures the performance of companies within the Russell 3000 Index having lower price-to-book ratios and lower forecasted growth values.*

*Russell Top 200 Growth Index: Market-weighted total return index that measures the performance of companies within the Russell 200 Index having higher price-to-book ratios and higher forecasted growth values.*

*Russell Top 200 Index: includes the 200 firms from the Russell 3000 Index with the largest market capitalizations.*

*Russell Top 200 Value Index: Market-weighted total return index that measures the performance of companies within the Russell 200 Index having lower price-to-book ratios and lower forecasted growth values.*

*Russell Mid Cap Growth Index: Market-weighted total return index that measures the performance of companies within the Russell Mid Cap Index having higher price-to-book ratios and higher forecasted growth values.*

*Russell Mid Cap Index: Capitalization-weighted index including firms 201 through 1000, based on market capitalization, from the Russell 3000 Index.*

*Russell Mid Cap Value Index: Market-weighted total return index that measures the performance of companies within the Russell Mid Cap Index having lower price-to-book ratios and lower forecasted growth values.*

*Russell 2000 Index: A capitalization-weighted index including the 2000 firms from the Russell 3000 Index with the smallest market capitalizations.*

*Russell 2000 Growth Index: Market-weighted total return index that measures the performance of companies within the Russell 2000 Index having higher price-to-book ratios and higher forecasted growth values.*

*Russell 2000 Value Index: Market-weighted total return index that measures the performance of companies within the Russell 2000 Index having lower price-to-book ratios and lower forecasted growth values.*

*Standard & Poor's 500 Index: Market-capitalization-weighted index of 500 widely held stocks. Member companies are chosen based on market size, liquidity, and industry group representation. Included are the stocks of industrial, financial, utility and transportation companies.*

## Ibbotson's Economic and Capital Markets Outlook con't

*Barclays Capital Aggregate Index: Market-value-weighted performance benchmark for investment-grade fixed-rate debt issues, including government, corporate, asset-backed, and mortgage-backed securities, with maturities of at least one year.*

*Barclays Capital U.S. Aggregate Government Long Index: Serves as a measure of total return of all public-issued nonconvertible investment-grade corporate debts that have a maturity of 10 years or more.*

*Barclays Capital 1-3 Month Treasury Bill Index: Market-value weighted index of very short-term U.S. Treasury securities. We use it as a proxy of money market investments.*

*Barclays Capital U.S. Aggregate Government 1-3 Yr Index: Total returns index comprised of both the Treasury Bond Index (all public obligations of the U.S. Treasury, excluding flower bonds and foreign-targeted issues) and the Agency Bond Index (all publicly issued debt of U.S. Government agencies and quasi-federal corporations and corporate-debt guaranteed by the U.S. Government). These bonds must have maturities of one to three years.*

*Barclays Capital U.S. Corporate High Yield Index: Index measuring returns of the high yield bond market. The Index includes issues rated BB and below by S&P or Moody's.*

*Barclays Capital Euro Aggregate Government Index – Consists of bonds issued in the euro or the legacy currencies of the sovereign countries participating in the European Monetary Union (EMU).*

*LIBOR: London Inter-Bank Offered Rate. Besides being an interbank short-term lending rate, it is one of the most common benchmark interest rate indexes used to determine the variable rate of adjustable rate mortgages.*

*Return on equity (ROE): Ratio of total net earnings (profits) to shareholders' equity. It measures the profitability of a company.*

*European Financial Stability Fund: Created by the European union to provide assistance to member states with unstable economies. The fund raises money by issuing debt, and distributes the funds to Eurozone countries whose lending institutions need to be recapitalized, who need help managing their sovereign debt or who need financial stabilization.*

*Currency Debasement: The practice of lowering the value of currency. It is particularly used in connection with commodity money such as gold or silver coins.*

*TED Spread – the difference between the interest rates on interbank loans and on short term U.S. government debt.*

*Basis Point – A unit that is equal to 1/100th of 1%, and is used to denote the change in a financial instrument. The basis point is commonly used for calculating changes in interest rates, equity indexes and the yield of a fixed-income security.*

*S&P 600 – an equity index representing 600 small-sized companies in various industries.*

*S&P 100 – measures the performance of large cap companies in the United States. The index is comprised of 100 major, blue chip companies across multiple industry groups.*

*Topix – First Section Index – An index that measures stock prices on the Tokyo Stock Exchange (TSE). This capitalization-weighted index lists all firms that are considered to be under the 'first section' on the TSE, which groups all of the large firms on the exchange into one pool. The second section groups all of the remaining smaller firms.*

*HSBC Purchasing Managers' Index: long-established monthly data-driven snapshots of individual countries' economies. They are compiled using proprietary and highly effective market research techniques (based on interviews with senior purchasing executives) which accurately measure economic activity and report well before other comparative official and government statistics.*

*Risk-off: When risky asset fall in price it is called "risk off". People flee from stocks and typically economically sensitive commodities like oil. Generally during these times "safe" investment rise in value.*

*Price-to-Funds Flow from Operations (P/FFO): Investors use this measure to determine how much the market is willing to pay per unit of growth. Companies with P/FFO multiples less than their growth rates are often considered undervalued.*

*All the data in the graphic images within this document, unless noted otherwise, are sourced from Factset.*

**About Ibbotson**

Ibbotson Associates is a leading independent provider of asset allocation, manager selection, and portfolio construction services. The company leverages its innovative academic research to create customized investment advisory solutions that help investors meet their goals.

**For more information, contact:**

Ibbotson Associates  
22 West Washington Street  
Chicago, Illinois 60602  
312 696-6700  
312 696-6701 fax  
[www.ibbotson.com](http://www.ibbotson.com)



- Not a bank or credit union deposit or obligation
- Not FDIC or NCUA/NCUSIF insured
- Not insured by any federal government agency
- Not guaranteed by any bank or credit union
- May lose value