CAMBRIDGE ASSOCIATES

Market Matters

August 31, 2015

Markets swooned in August as China's disappointing economic data releases and mini-devaluation renewed investors' fears regarding the global growth outlook. Crowded investor positioning and low seasonal liquidity likely combined to trigger sharp intra-month declines across risk assets as investors rotated into perceived safe-haven assets such as gold and select G7 sovereign bonds and currencies. Many US-listed securities, including some popular ETFs, were also negatively impacted by trading and pricing issues associated with "circuit breakers" that were originally designed to support orderly market function during stressed environments. Following better-than-expected US economic data releases and dovish commentary out of the Federal Reserve, markets rallied to recover some of their lost ground by month-end. As of August 31, most global equity markets had suffered mid-to-high single-digit percentage losses. Fixed income markets experienced more mixed, but generally muted, results and were led by gains in UK gilts, while US Treasuries were flat. Gold outperformed all major asset classes as it has in past periods of market stress.

Much has been made of China's decision announced August 11 to allow market forces further influence over its exchange rate. That a roughly 3% devaluation, though sizable in the context of the yuan's recent history, triggered such consternation within global markets speaks to the growing importance of China's economy from the standpoint of global economic

All returns are total returns in local currency unless otherwise noted.

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growth. Some market commentators, at least initially, seemed to interpret the move as a reaction to recent disappointing economic data and perhaps a sign of desperation on the part of policymakers struggling with rising risks of an economic hard landing. The reality is likely more nuanced. Chinese policymakers, as part of their reform agenda, have prioritized the goal of achieving reserve currency status for the yuan with the International Monetary Fund (IMF), which is expected to announce its decision within the next few months. This seemingly technical objective is important for China because it would help facilitate the country's capital account liberalization and in turn support the government's efforts to rebalance its economic model away from investment and toward consumption. Certainly recent dollar strength has made the trade-weighted yuan more expensive, making the task of stimulating the economy through monetary easing more difficult. As a result, the mini-devaluation likely furthered multiple goals, supporting the economy and policy implementation on the one hand and demonstrating to the IMF China's commitment to economic reforms on the other. Nevertheless, August's episode reinforces the expectation that China's economic transition, no matter how successful, will continue to trigger sharp market reactions along the way, and also demonstrates the delicate balancing act that Chinese policymakers now face.

US equities lost more than 10% over four days in late August, a 12% cumulative correction from the May index peak and the first drop of more than 10% since 2011. The market then staged the largest two-day rally since 2009 and ended the month at -6.0%, slightly ahead of most developed markets equivalents. The drop pushed US equities into the red year-to-date. Stretched valuations and slightly negative second quarter earnings growth likely led investors to take profits amid renewed market uncertainty, and the disproportionate losses in certain popular technology stocks during the August sell-off provide additional evidence of this. Further energy sector losses in the second quarter dragged aggregate year-over-year earnings growth for the S&P 500 into negative territory for the first time since third quarter 2012. Second quarter also saw negative revenue growth, which is forecast to continue through year-end, serving to continue pressuring record profit margins and to dampen any earnings growth recovery in the near term. At the same time, positive revenue and earnings surprises across several sectors, led by health care, demonstrated some areas of strength within the US economy. Still, the strong dollar and weak economic growth in key export markets continue to weigh on the operating results of many US-domiciled multinationals, which feature prominently in the large-cap indexes. When combined with further recent downgrades to already negative estimates for the energy and materials sectors, US earnings growth is forecast to remain negative in the third quarter and to end barely positive for the full calendar year.

Europe ex UK (-7.8%) and EMU (-8.4%) equities gave back all of their July gains and then some as investors de-risked their portfolios, and worries grew about the impact of slowing emerging markets growth on exporters. This sell-off occurred despite a reasonably robust second quarter earnings season and despite the approval and initiation of the third Greek bailout program, though some headline economic data (like second quarter Eurozone GDP) have disappointed. UK equities (-6.1%) slightly outperformed despite further significant earnings downgrades by several large-cap diversified miners. Japanese equities (-7.9%) were not immune from the global sell-off as investors took profits following the release of a negative second quarter GDP growth estimate and despite resilient earnings growth. Valuations for all three regions remain undemanding relative to history following August's correction, and despite the August losses, returns for Europe ex UK, EMU, and Japanese equities all remain positive year-to-date in local currency terms.

Emerging markets equities (-6.5%) suffered an estimated $8.7 billion of outflows in August, the largest foreign investor pullback observed since the June 2013 "Taper Tantrum," with China dragging overall performance lower (-11.7%). Emerging markets equities briefly touched bear market territory on an intra-month basis and now sit almost 16% below their recent high in April. Rising concerns over China's economic slowdown and Chinese policymakers' latest responses also weighed on the stocks of its trading partners in emerging Asia (-7.5%), the worst-performing region. The equities of commodity exporters outside of Asia such as Brazil and Peru also suffered. Earnings growth results and estimates continue to be ratcheted down, particularly for the energy and materials sectors, and further downgrades could put emerging markets stocks at risk of suffering a second straight calendar year of negative earnings growth in 2015. At the same time, current valuations continue to suggest a compelling long-term value opportunity.

Global government bonds (-0.2%) experienced mixed results despite renewed concerns over rising deflation risks emanating from China. UK gilts (0.3%) and US Treasuries (0.0%) outperformed, while EMU sovereign bonds (-1.0%) suffered losses. Within the corporate credit space, US high-yield bond (-1.7%) spreads blew out, particularly those of energy issuers, while investment-grade credits (-0.6%) also suffered minor losses. Meanwhile, US tax-exempt bonds (0.2%) continued to eke out small positive gains, largely ignoring slowly unfolding potential tragedies such as Puerto Rico and Chicago (whose general obligations are now "junk" rated). The US Treasury yield curve was largely unchanged despite intra-month volatility.

The US dollar (-1.6% based on the US Dollar Index) weakened against the euro and yen in response to two factors: (1) the market sell-off was viewed as lowering the likelihood of the Fed moving in September, and (2) local European and Japanese investors repatriated some of their foreign asset exposure. Emerging markets and commodity currencies experienced further heightened volatility, and most were weaker versus major G4 currencies.

Inflation-sensitive assets continued to come under pressure amid lower growth expectations and generally weaker, albeit highly volatile, commodity prices. Gold (3.3%), the main exception, benefitted from its safe-haven status and reversed some of its recent losses. Commodities (0.3% as measured by the S&P GSCI™ Index) registered double-digit percentage losses on an intra-month basis but closed essentially flat, as crude prices rallied more than 25% off their recent bottom on August 24, with WTI erasing all of the month's prior losses. Crude prices were boosted toward month end by market participants rushing to cover their shorts in response to lower domestic production forecasts by the US government as well as initial signals by OPEC of willingness to engage other oil producers regarding market supply dynamics. Natural resources equities (-5.8%) underperformed commodities as earnings suffered due to recent asset write-offs and production cuts. Master limited partnerships (-5.0%) similarly underperformed, perhaps in anticipation of upcoming refinery outages, while US REITs (-5.8%) came under pressure despite lower Treasury yields. US Treasury Inflation-Protected Securities (-0.8%) also declined as inflation expectations were dialed back. ■

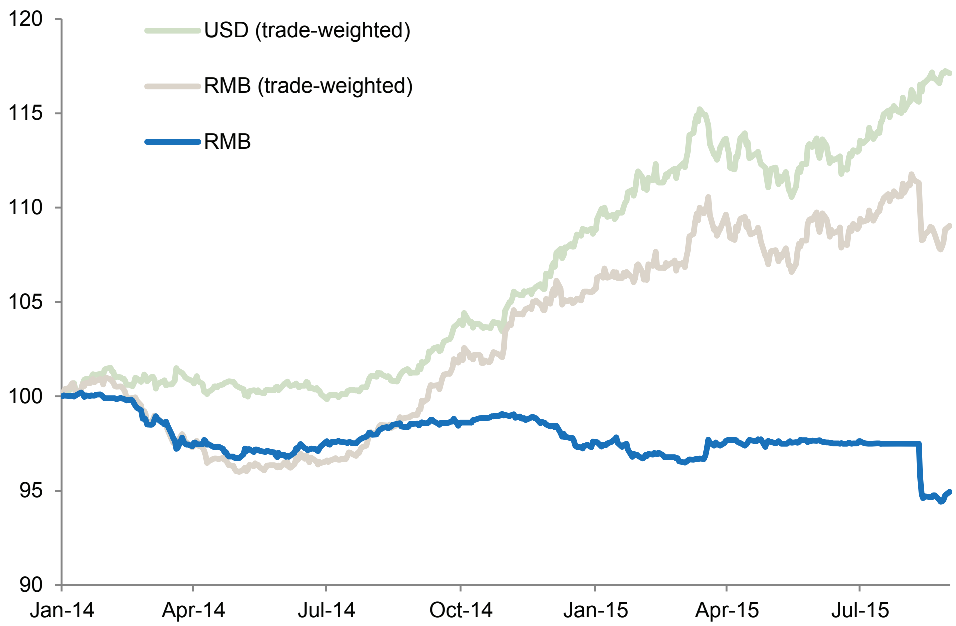
Access additional exhibits on market performance via the Market Update category on our **Exhibit Finder** application

For our views on specific asset classes, read **Asset Class Views**

The views of our Chief Investment Strategist can be found each quarter in **VantagePoint**

Chinese RMB Mini-Devaluation

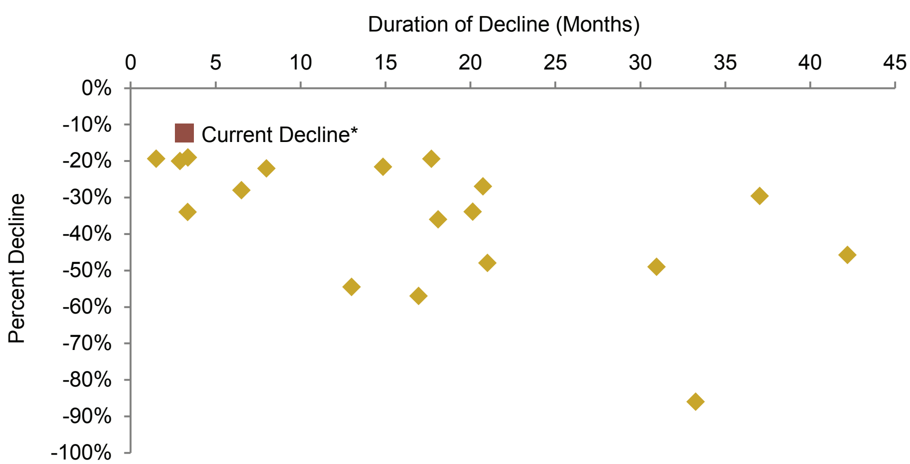
January 1, 2014 – August 31, 2015 • January 1, 2014 = 100



Sources: J.P. Morgan Securities, Inc., MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

In devaluing the RMB, Chinese policymakers released some pressure on the currency and economy from the strong dollar and appear to have furthered multiple policy objectives

US Equity Market Declines of ~20% or More



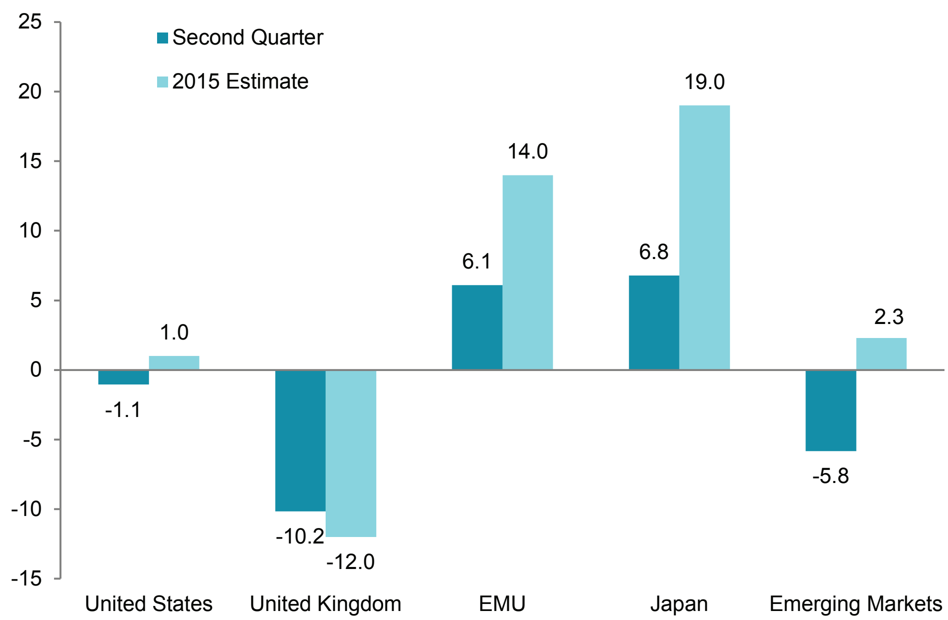
	Decline	Duration (Months)
Average	-35%	17.9
Median	-30%	17.4
Current Decline	-12%	3.2

Sources: MSCI Inc., Ned Davis Research, Inc., Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Note: Declines of at least 19% were chosen.
* Current decline for US equities represents the period May 21, 2015, to August 25, 2015.

US equities lost more than 10% over four days in late August, a 12% cumulative correction from the May index peak and the first drop of more than 10% since 2011, before recovering some of these losses into month-end

Q2 Earnings Growth Results and FY 2015 Earnings Growth Expectations

2015 • Local Currency • Year-Over-Year Percent (%)

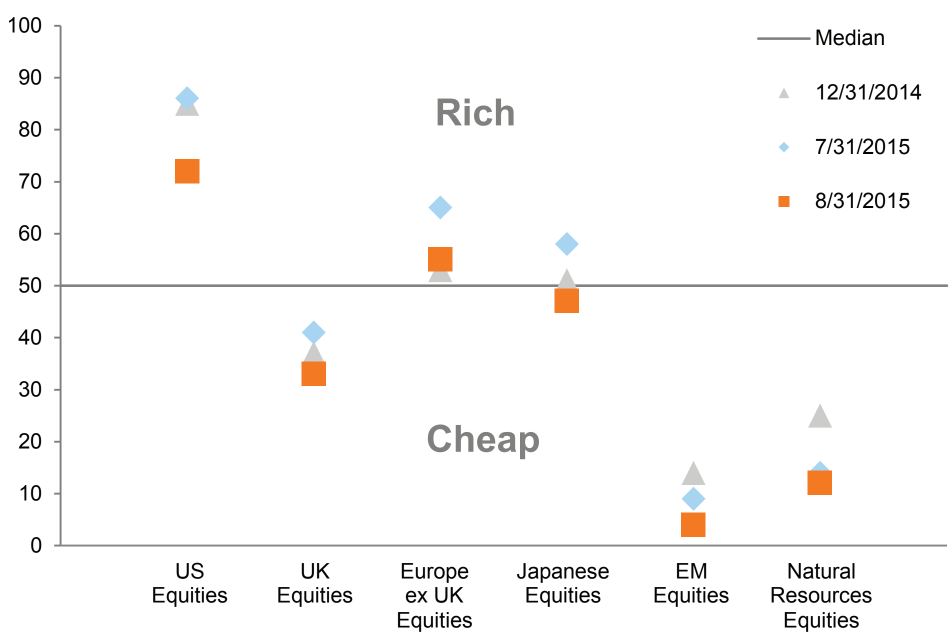


Sources: J.P. Morgan Securities, Inc., MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Note: Japan EPS growth/estimates are for its fiscal year ending March 2016.

Earnings growth has remained resilient in the EMU region and Japan, while it has continued to falter in the United States, United Kingdom, and emerging markets

Percentile Rank of Composite Normalized P/E Ratio Compared to History

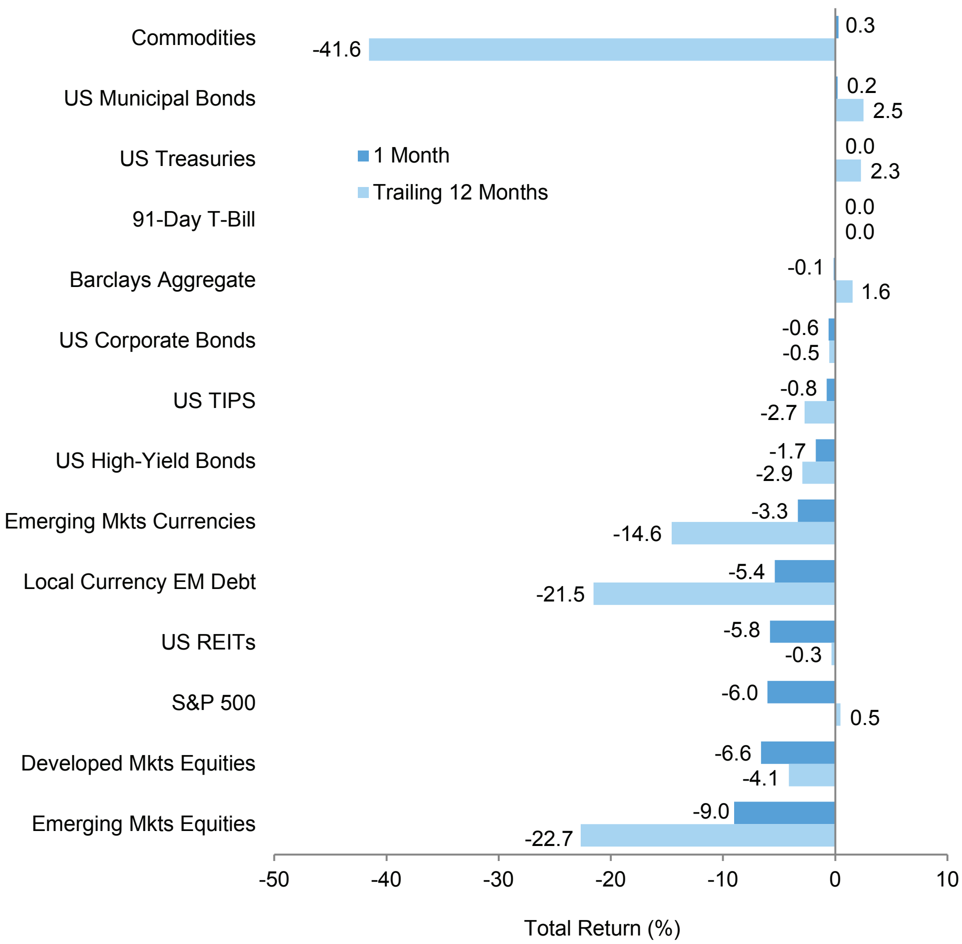
As of August 31, 2015 • Percent (%)



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
Note: ROE-adjusted P/E ratio is used for Japanese equities and reflects post-2001 data.

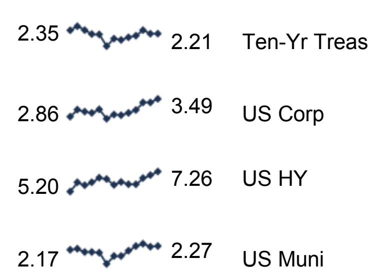
Global equity valuations have generally fallen since the start of the year. US equities still appear slightly overvalued despite the August correction, while equities in other regions remain attractively valued on both a relative and absolute basis

Index Performance (US$)
As of August 31, 2015

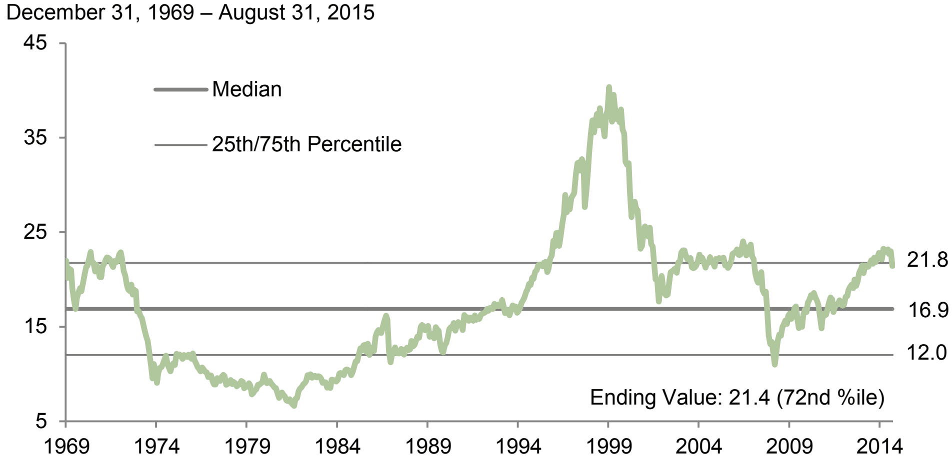


Commodities outperformed all other asset classes in USD terms in August, driven by gold and the late August oil price rally. Most risk assets including equities and corporate bonds experienced corrections, while fixed income markets were effectively flat

Fixed Income Yields
August 2014 – August 2015

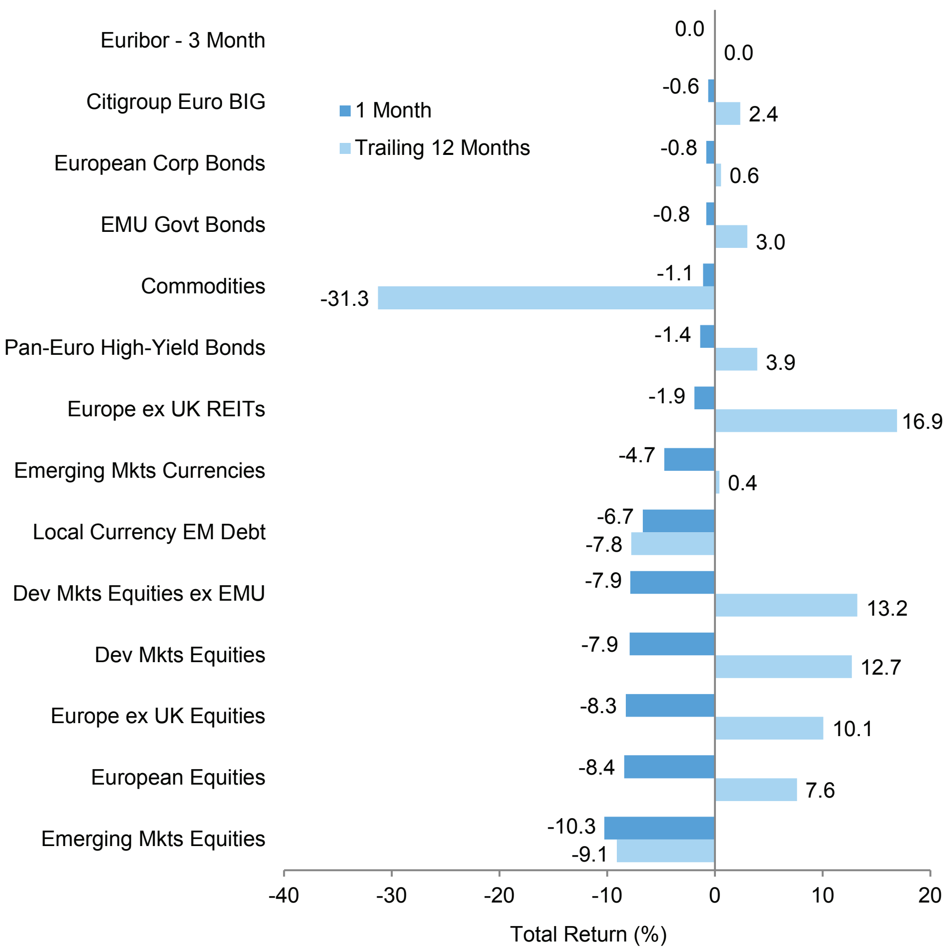


MSCI US Composite Normalized P/E
December 31, 1969 – August 31, 2015



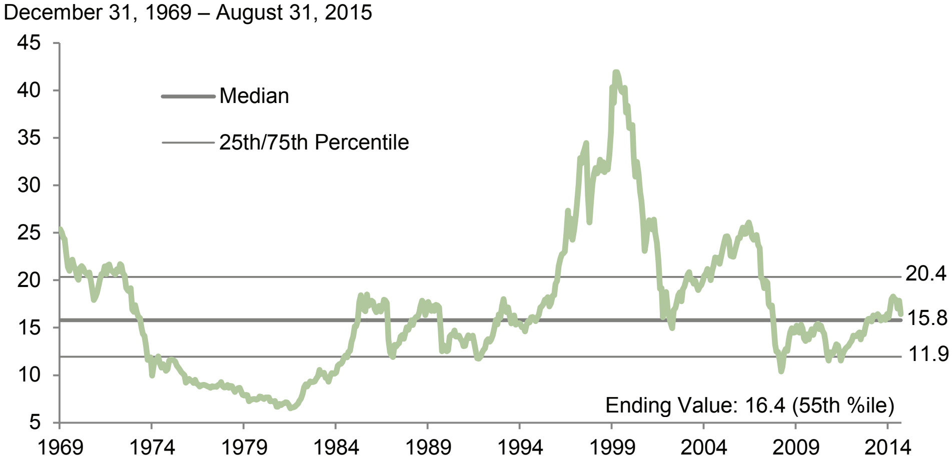
Sources: Barclays, BofA Merill Lynch, FTSE International Limited, J.P. Morgan Securities, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
See last page for notes.

Index Performance (€)
As of August 31, 2015



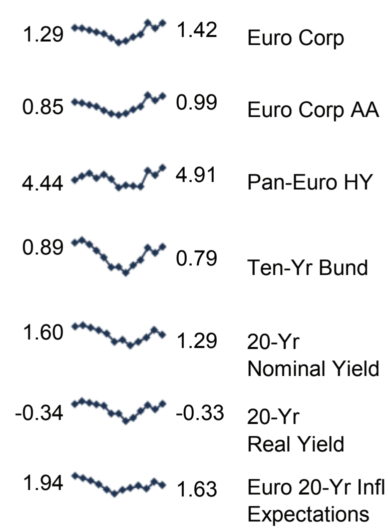
Euro-based investors experienced declines across most asset classes in August, with developed markets equities and emerging markets assets suffering the most. Fixed income and commodities experienced more muted losses

MSCI Europe ex UK Composite Normalized P/E
December 31, 1969 – August 31, 2015



Sources: Barclays, Bloomberg L.P., BofA Merill Lynch, Citigroup Global Markets, EPRA, FTSE International Limited, MSCI Inc., J.P. Morgan Securities, Inc., National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.
See last page for notes.

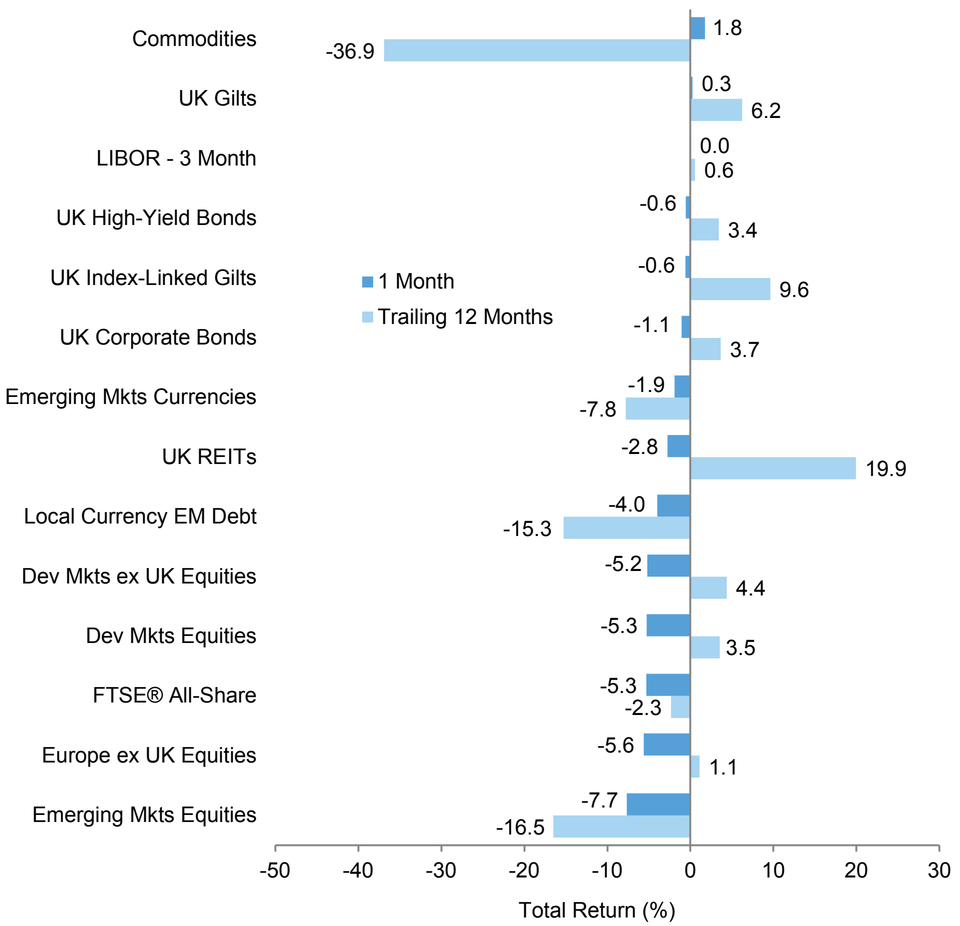
Fixed Income Yields
August 2014 – August 2015



UK investors experienced results similar to their US counterparts in August. Commodities outperformed, fixed income markets saw mixed results, and equities corrected in pound sterling terms. UK equities performed in line with other developed markets given pound weakness

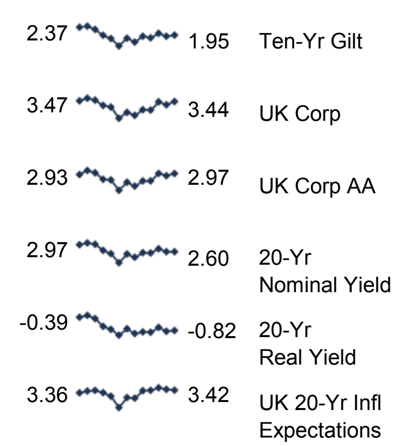
Index Performance (£)

As of August 31, 2015



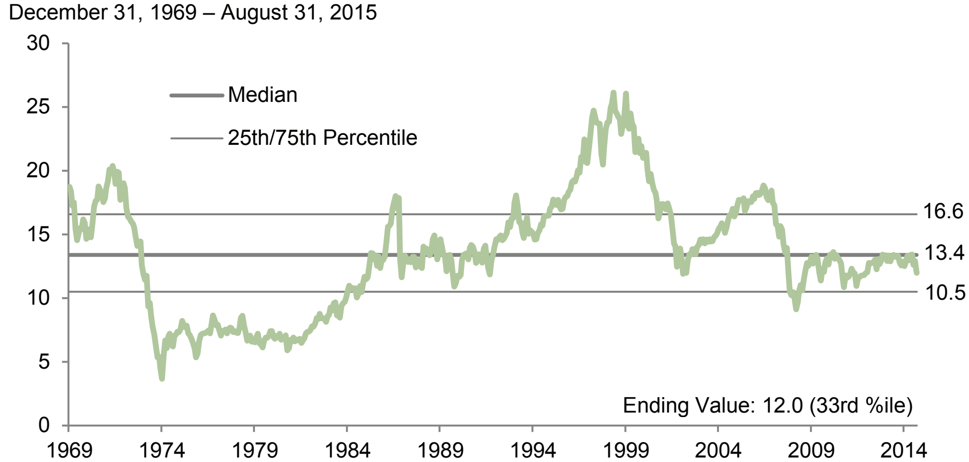
Fixed Income Yields

August 2014 – August 2015



MSCI UK Composite Normalized P/E

December 31, 1969 – August 31, 2015



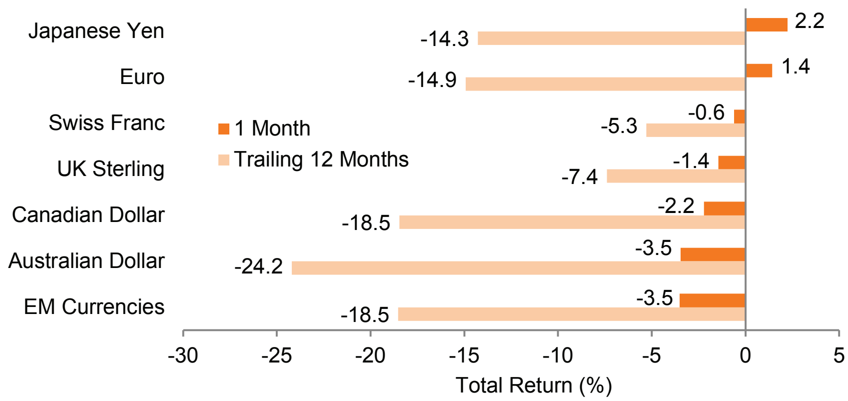
Sources: Bank of England, Barclays, BofA Merrill Lynch, EPRA, FTSE International Limited, J.P. Morgan Securities, Inc., MSCI Inc., National Association of Real Estate Investment Trusts, Standard & Poor's, and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties.

See last page for notes.

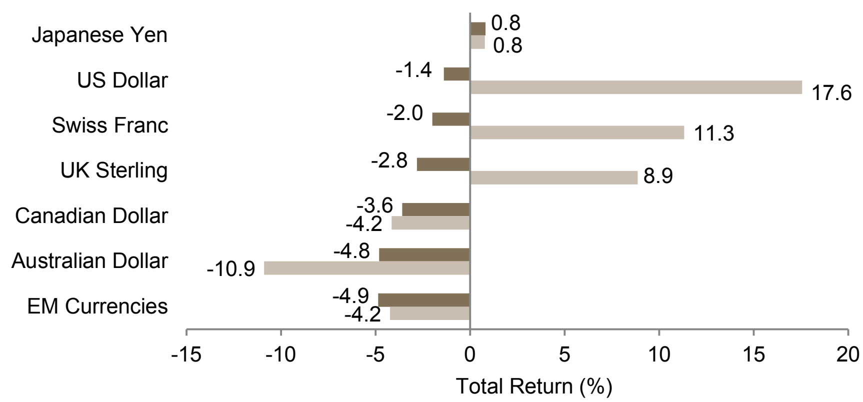
Currency Performance

As of August 31, 2015

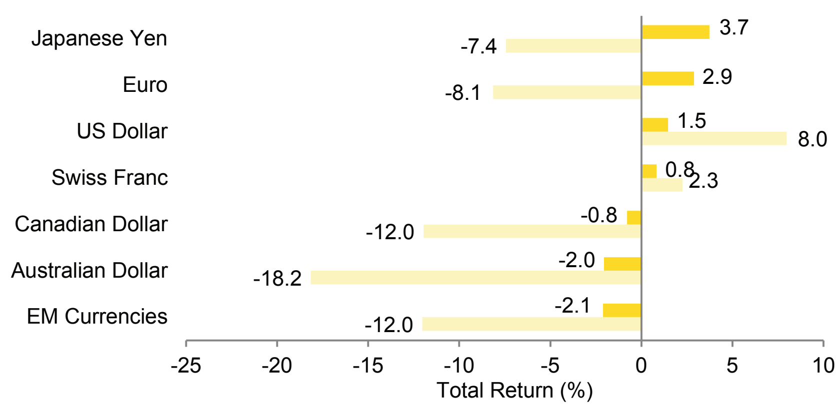
Versus the US Dollar



Versus the Euro



Versus the Pound Sterling



Sources: MSCI Inc. and Thomson Reuters Datastream. MSCI data provided “as is” without any express or implied warranties.
Note: EM currencies is an equal-weighted basket of 20 currencies.

The US dollar weakened against the euro and yen as the market sell-off was viewed as lowering the likelihood of the Fed moving in September, while the latter two currencies strengthened due to safe-haven inflows from local investors. Emerging markets and commodity exporter currencies experienced further weakness versus the major G4 currencies

Exhibit Notes

Performance Exhibits

Total returns for MSCI developed markets indexes are net of dividend taxes. Total returns for MSCI emerging markets indexes are gross of dividend taxes.

US dollar index performance chart includes performance for the Barclays Aggregate Bond, Barclays Corporate Investment Grade, Barclays High Yield Bond, Barclays Municipal Bond, Barclays US TIPS, Barclays US Treasuries, BofA Merrill Lynch 91-Day Treasury Bills, FTSE® NAREIT All Equity REITs, J.P. Morgan ELMI+, J.P. Morgan GBI-EM Global Diversified, MSCI Emerging Markets, MSCI World, S&P 500 and S&P GSCI™ indexes.

Euro index performance chart includes performance for the Barclays Euro-Aggregate: Corporate, Barclays Pan-Euro High Yield, Citigroup EMU Govt Bonds, EURIBOR 3M, FTSE® EPRA/NAREIT Europe ex UK RE, J.P. Morgan ELMI+, J.P. Morgan GBI-EM Global Diversifi ed, MSCI Emerging Markets, MSCI Europe, MSCI Europe ex UK, MSCI World ex EMU, MSCI World, and S&P GSCI™ indexes.

UK sterling index performance chart includes performance for the Barclays Sterling Aggregate: Corporate Bond, BofA Merrill Lynch Sterling High Yield, FTSE® All-Share, FTSE® British Government All Stocks, FTSE® British Government Index-Linked All Stocks, FTSE® EPRA/NAREIT UK RE, J.P. Morgan ELMI+, J.P. Morgan GBI-EM Global Diversified, LIBOR 3M GBP, MSCI Emerging Markets, MSCI Europe ex UK, MSCI World, MSCI World ex UK, and S&P GSCI™ indexes.

Valuation Exhibits

The composite normalized P/E ratio is calculated by dividing the inflation-adjusted index price by the simple average of three normalized earnings metrics: ten-year average real earnings (i.e., Shiller earnings), trend-line earnings, and return on equity–adjusted earnings. We have removed the bubble years 1998–2000 from our mean and standard deviation calculations. All data are monthly.

Fixed Income Yields

US fixed income yields reflect Barclays Municipal Bond Index, Barclays US Corporate High Yield Bond Index, Barclays US Corporate Investment-Grade Bond Index, and the ten-year Treasury.

European fixed income yields reflect the BofA Merrill Lynch Euro Corporate AA Bond Index, BofA Merrill Lynch Euro Corporate Bond Index, Barclays Pan-European Aggregate High Yield Bond Index, Bloomberg Twenty-Year European Government Bond Index (nominal), ten-year German bund, twenty-year European Inflation Swaps (inflation expectations), and the real yield calculated as the difference between the inflation expectation and nominal yield.

UK sterling fixed income yields reflect the BofA Merrill Lynch Sterling Corporate AA Bond Index, BofA Merrill Lynch Sterling Corporate Bond Index, UK ten-year gilts, and Bank of England twenty-year nominal, real, and zero coupon (inflation expectations) yields.