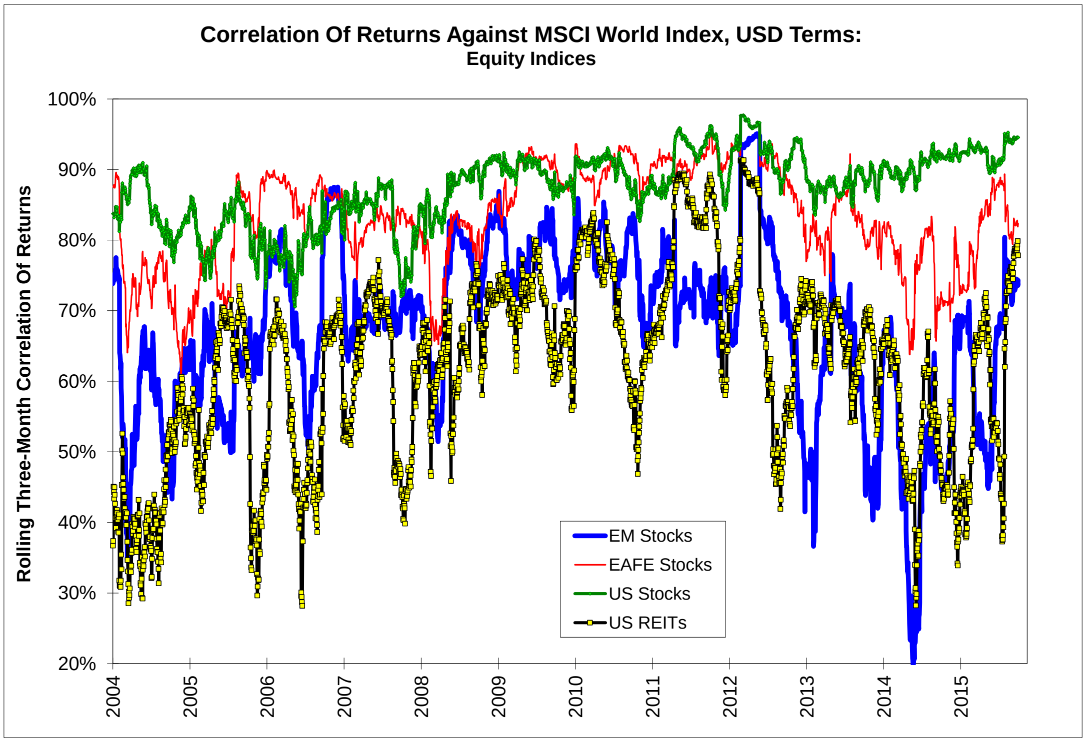
Asset Return Correlation After August Global Equity Selloff

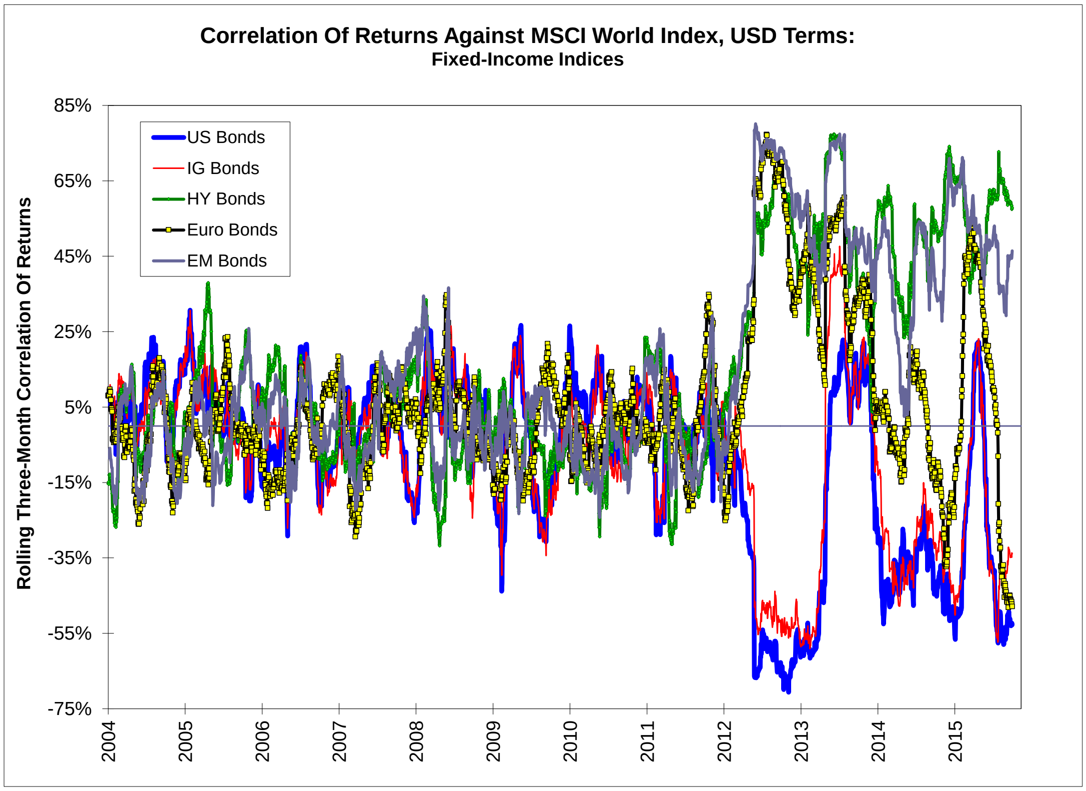
How have asset return correlation patterns changed after depths of the August selloff? That event was followed by a postponement of rate hikes in the U.S., additional monetary ease in China and the prospects for an expansion of Eurozone QE.

The first four charts displayed below depict rolling three-month correlations of total returns in USD terms between various asset classes and the MSCI World index. The one exception is the CRB industrial materials index for which no total return series exists.

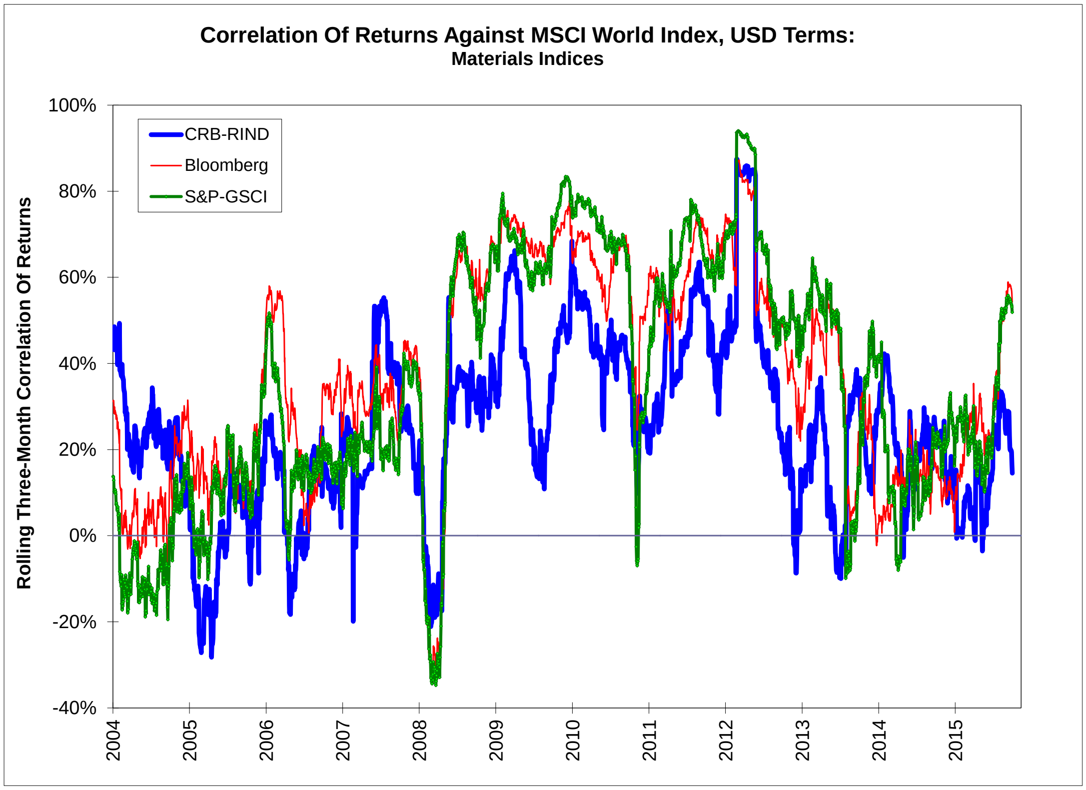
The correlation of returns for the both the Emerging Market and U.S. REIT indices increased as they returned 12.98% and 9.40%, respectively, over the period. This clearly suggests both asset classes are being propelled higher by prospects for continued monetary accommodation.



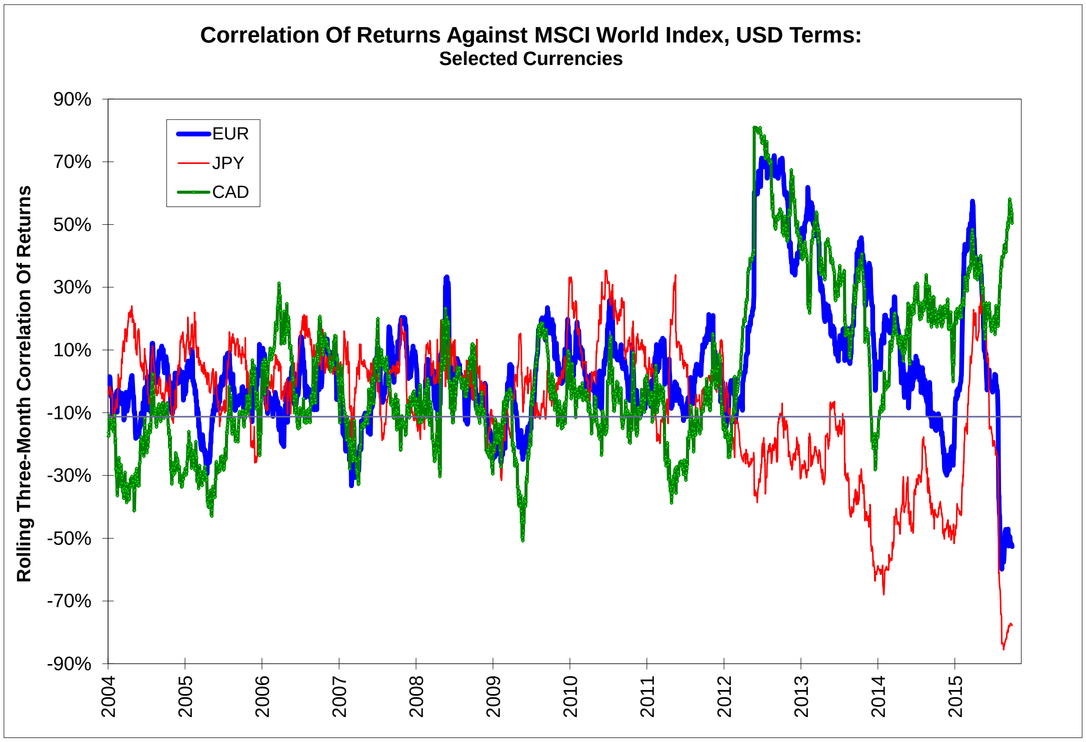
Correlations of returns for both U.S. investment-grade and emerging market bonds rose while those for Eurozone 7-10 year bonds and U.S. high-yield bonds declined. These are unusual combinations. Eurozone 7-10 year bonds' correlation of returns has moved down to the level of U.S. 7-10 year bonds, indicating both are being treated as haven assets. The rising correlation of returns for EM bonds represents a relief rally as the Morgan Stanley index of EM currencies rebounded 2.26%. The decline in correlations of returns for U.S. high-yield continues to represent the problems of the energy and mining sectors.



The S&P-GSCI and Bloomberg indices' correlations of returns have increased along with the downturn in physical commodities. These markets are showing an end to the trendless pattern prevailing over the past two years.



Correlations of returns for excess carry from the USD into both the EUR and JPY continued to decline. The JPY has turned into one of the strongest haven assets while the commodity-linked CAD is behaving as a “risk-on” asset.



Correlation Matrix And Conclusion

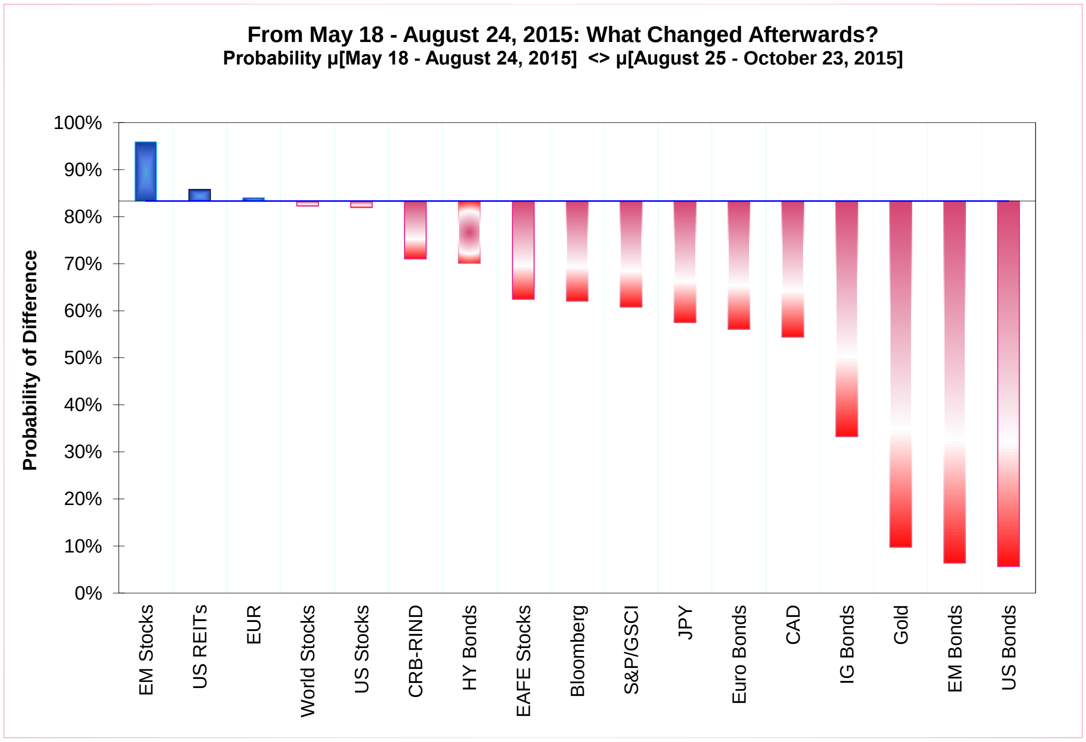
A correlation of returns matrix going back to May 15, 2015 has large swaths of negative correlation (red font on yellow background). These extend for U.S. and Eurozone 7-10 year government bonds, for investment-grade bonds, for gold and for both the Japanese yen and the euro.

Post-May 15, 2015 Correlation Of Returns

	World Stocks	US Stocks	EAFE Stocks	EM Stocks	US Bonds	IG Bonds	HY Bonds	Euro Bonds	EM Bonds	DJ-UBS	S&P-GSCI	Gold	US REITs	Euro	Yen	Can. Dlr.
World Stocks	1.000															
US Stocks	0.937	1.000														
EAFE Stocks	0.836	0.591	1.000													
EM Stocks	0.726	0.572	0.769	1.000												
US Bonds	0.495	0.485	0.380	0.377	1.000											
IG Bonds	0.394	0.370	0.329	0.260	0.906	1.000										
HY Bonds	0.584	0.461	0.618	0.630	0.323	0.210	1.000									
Euro Bonds	0.303	0.352	0.151	0.306	0.417	0.355	0.315	1.000								
EM Bonds	0.460	0.271	0.623	0.449	0.095	0.038	0.617	0.309	1.000							
Bloomberg	0.469	0.403	0.431	0.452	0.332	0.334	0.332	0.083	0.256	1.000						
S&P-GSCI	0.459	0.414	0.391	0.415	0.345	0.339	0.319	0.155	0.206	0.938	1.000					
Gold	0.057	0.077	0.028	0.081	0.225	0.144	0.102	0.468	0.250	0.261	0.117	1.000				
US REITs	0.702	0.772	0.412	0.401	0.148	0.091	0.319	0.167	0.243	0.146	0.151	0.468	1.000			
Euro	0.338	0.422	0.127	0.322	0.302	0.151	0.257	0.723	0.237	0.017	0.067	0.357	0.322	1.000		
Yen	0.595	0.605	0.433	0.526	0.438	0.298	0.424	0.564	0.017	0.200	0.248	0.308	0.526	0.621	1.000	
Can. Dlr.	0.452	0.430	0.347	0.282	0.204	0.219	0.092	0.129	0.233	0.596	0.574	0.310	0.282	0.189	0.031	1.000

How significant have the dollar’s upturn and expectations for higher short-term rates in the U.S. been for individual assets? If we compare each asset class’ returns over the August 25, 2015 period onwards period to those from the May 18 – August 24, 2015 period, we see only 3 of the 17 markets examined are different at the 83.33% confidence level, or 5:1 odds.

These are EM equities, U.S. REITs and the euro. At the opposite end of the spectrum, U.S. 7-10 year government bonds, EM bonds and gold remained unchanged over the period at a 16.67% confidence level.


From May 18 - August 24, 2015: What Changed Afterwards?
Probability μ[May 18 - August 24, 2015] <> μ[August 25 - October 23, 2015]
Probability of Difference
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
EM Stocks
US REITs
EUR
World Stocks
US Stocks
CRB-RIND
HY Bonds
EAFE Stocks
Bloomberg
S&P/GSCI
JPY
Euro Bonds
CAD
IG Bonds
Gold
EM Bonds
US Bonds