

Sabrient Systems, LLC

# TheMacroReport

Focus: Eurozone

March 7, 2012

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# TheMacroReport

## Focus: Eurozone

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### Welcome to the MacroReport.

- The fever of concern that investors have experienced due to the Eurozone debt crisis seems to have abated somewhat, primarily due to the ECB's prescription of LTRO-1 and 2. Will it facilitate a long-term cure or simply provide shorter term relief of symptoms?
- Based on the majority of quotes generated by the leaders at the first EU summit of 2012, the Eurozone is apparently embarking upon a paradigm shift towards fiscal union and growth and away from crisis management and default. Will the latest rosy assessment led by the tandem of Merkel and Sarkozy prove to be a more accurate read than previous prognostic attempts?
- The latest deal cut by Greece to address its next round of debt obligations was a classic deal in compromise, meaning none of the parties involved left the table fully satisfied. Will the elections in April render the exercise moot and reopen Pandora's Box?
- The current round of saber rattling between the U.S., the EU and Iran may prove to be little more than theater geared toward an Iranian audience about to embark on its own election cycle. In such a volatile environment, can the performance accidentally escalate into tragedy?
- Last week's G-20 meeting in Mexico served up some pointed retorts and a side of stern comments, all directed towards the Eurozone's request for additional funds. Will Germany take the requisite steps of priming the pump with euros in order to attract IMF cash?
- The MacroReport will consider four scenarios driven by a combination of these circumstances and events, and conclude with a series of economic factor-based portfolios and individual stock and ETF choices geared to fit the various scenarios.

### LTRO-The Sequel

The European Central Bank's (ECB) first three-year Long-Term Refinancing Operation (LTRO), which has been referenced on more than one occasion as "the bazooka," was launched in December and, like a gun brought to a knife fight, proved to be a most formidable weapon.

Banks embraced the offer of cheap money, securing nearly 500 billion in euros in the process. The ECB's generous provisions included 1% interest over three years, and, perhaps of greater significance, collateral requirements for the new loans were greatly eased. This allowed cash-strapped Eurozone banks to post lower quality assets, even illiquid ones, as collateral.

The LTRO seems to have brilliantly addressed the liquidity crisis suffered by the ailing small and medium Eurozone banks, many of them suffering from a rash of PIIGS (Portugal, Ireland, Italy, Greece, and Spain) depositors taking their money and running to stash their hard-earned euros in bigger and better capitalized core member banks.

In surprisingly short order, the fear of a Greek default and the potential for contagion that had permeated the markets for the latter part of 2011 seemed to lift.

A prime intention of the ECB was to bring down the soaring bond yields of the weaker Eurozone member nations, and the LTRO helped accomplished this goal. Though a sizable amount of the borrowed funds went to roll over existing debt, a sufficient amount of sovereign debt was purchased to contribute to the reversal of soaring bond yields experienced by the peripheral Eurozone member-nations. (See Chart 1 on page 9.)

So what could ECB's President, Mario Draghi, do for an encore? Like Hollywood, he went for the sure thing, and LTRO-2 was offered up at the end of February.

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Taking up the latest round of “cheap money” offered by the ECB, banks borrowed 529 billion euros, which was pretty much in the sweet spot of estimates. The fear of insufficient demand on one hand and excessive demand on the other turned out to be unwarranted. Hope remained that the second round of the three-year LTRO would infuse sufficient cash into the banking system and out to the community in general, another target of the ECB’s LTRO effort.

**The Bottom Line:** Is a trillion euros adequate to solve the liquidity problems of the small and medium banks? Perhaps. Yet the looming issue of a regional credit crunch remains, and the patient may be chronic. If the de facto quantitative easing generated by the ECB’s dual LTRO efforts fail to adequately penetrate into the broader Eurozone economy, then the resultant lack of growth could make a broad-based EU recession inevitable.

### **The First EU Summit of 2012 Was a Back-Slapper**

The first European Union Summit of 2012 proved notable for both a relative lack of drama and the self-congratulatory tone of many of the attending EU leaders.

While there are certainly several incidents within the last nine months when Angela Merkel, the German Chancellor, and Nicholas Sarkozy, France’s President, graced the podium and stood shoulder to shoulder to affirm solidarity in an effort to calm spooked investors, the subsequent actions often failed to follow words, and the calming effects wore off quicker than gold plating on a tin ring.

This time, the leaders of the core Eurozone countries managed to convey greater conviction than in the past, no doubt due to the general perception that the Eurozone is finally on track to finding a solution to the sovereign debt crisis that has shaken its foundation.

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Many of the European leaders expressed a common sentiment that this summit was the first in a while that wasn't geared towards full-tilt crisis management, but words of caution never seemed to trail far behind the optimism.

The one concrete action that occurred was the signing of the fiscal treaty that was discussed at last year's final summit of 2011. The pact reflects the tough new budgetary rules sought by Ms. Merkel, and would require all 17 members of the Eurozone to balance their budgets.

What likely stands in the way of this intention is the fact that, according to the European Commission's latest report, the Eurozone is drifting back down into recession. (See Chart 2 on page 9.)

For the EU as a whole, the expectation is that, for 2012, real GDP is highly likely to stagnate. For the Eurozone, real GDP is predicted to shrink by 0.3%, which reflects a significant 1% revision. Key factors contributing to the recessionary numbers include an increase in sovereign debt yields since last year's projections coupled with the anticipated effects of the widespread austerity measures.

It is certainly telling that before the ink was dry on the new fiscal pact, Spain announced it had raised its 2012 deficit target to 5.8%, more than 30% above its previous deficit-to-GDP target for the year. With Spain experiencing a debilitating level of unemployment, it may be hard not to see it as a harbinger of things to come for the periphery countries. (See Charts 4-7 on page 10.)

**The Bottom Line:** Put simply, though Ms. Merkel referenced the necessity for new programs to promote growth, it is hard to see a gain in GDP as the cumulative effects of Eurozone austerity kicks into the next gear.

### Iran Stars in Bad Theater

In considering worst-case scenarios in the investment arena, one eventually ends up analyzing an area of even greater volatility than the Eurozone, and that is Iran. While it has become something of a hedge fund manager's parlor game to ponder the possibilities of contagion emanating from a Greek default, it is considerably more difficult to imagine the consequences that could arise in the event of an Iran war, which would go far beyond just the rise in crude prices. (See chart 3 on page 9.)

The ongoing concern regarding Iran's nuclear program has prodded the U.S. to increase its level of sanctions, including authorization for banks to freeze Iranian assets. The EU, which imports around 600,000 bpd of Iranian crude, has hopped aboard the sanctions train, imposing similar moves. In addition, they have called for an embargo against Iranian oil.

Iran responded by threatening to block the strategically important Strait of Hormuz, thereby limiting the flow of oil-bearing tankers. This, however, makes no sense in any form, as it would be a perfect example of cutting off one's nose to spite one's face, as Iran needs the oil revenue more than its customers need the oil. This may be evidenced by the fact that Iran is desperately trying to move its crude, 18% of which is normally exported to the EU, by offering China discounts, extending India's credit, and bartering with smaller Asian countries.

The real problem now is that Israel is nervous, and that it wants to calm itself through the elimination of its worst nightmare, a nuclear Iran. It probably figures it can handle the political fallout more easily than the other sort.

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**The Bottom Line:** Economically speaking, Iran doesn't have much wiggle room—it has resorted to bartering its crude, a clear sign of desperation. The real wild card is Israel—can the U.S. mitigate Israel's interest in military action? Obama's recent meeting with Netanyahu, where the U.S. leader told his Israeli counterpart to go diplomatic, serves as political cover should Israel opt for preemptive action.

### **The Latest Greece Deal: Cut and Run?**

Greece has managed to stave off default for the moment, agreeing last month to yet another series of extreme austerity measures and draconian conditions in exchange for 130 billion euros, part of which will go to its March debt payment.

The compromise was a classic one in many ways, in the sense that, clearly, no one was happy with the facets of the deal.

Certainly not the private investment community, who collectively received "a haircut" of 53.5%, slightly more off-the-top than the previously projected 50%. While it is a deal that still requires the approval of two-thirds of the majority of private sector bondholders in order to trigger the collective action clauses (CACs), it is one that is expected to move forward, allowing the deal to proceed.

The key benchmark introduced into the deal was a targeted reduction of debt-to-GDP ratio of 120% by 2012, a somewhat optimistic goal considering it currently stands at 159%. The IMF has expressed doubts as to the attainability of the target, indicating 129% seems more likely. However, the financing gap between these numbers would require yet another financial intervention, perhaps by the ECB.

In many ways, however, all these targets may be moot, as 2020 is a long way off by any measure, certainly in economic and, perhaps even more important, political terms.

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As far as Greece is concerned, it has, for this new deal, effectively agreed to relinquish a surprising level of sovereign control. By agreeing to let the Troika of the ECB, the European Commission (EC), and the International Monetary Fund (IMF) maintain a permanent presence in Athens as a way of monitoring the conditions of the deal, Greece is subjecting itself to a high level of public humiliation.

With Greece holding its national elections next month, this certainly may become a factor. It is quite possible that the Greek electorate may express its anger and resentment at the polls, choosing to bring to office politicians who are riding the sentiment of anti-austerity. A new set of elected leaders may then become obliged to negate any recent agreements made by their predecessors, and Greece will insist on more amenable terms.

Germany and the wealthier Eurozone members may balk at further concessions, and default may become the only other option.

**The Bottom Line:** The Eurozone will likely do whatever it takes in order to allow for an orderly default, which to a large degree is what is already occurring. Efforts to build a firewall—a fund adequate to cover the estimated cost of contagion and often equated to an amount adequate to bailout both Italy and Spain—will continue.

However, actions by Greece to accelerate its exit from the Eurozone could shift an orderly default to a disorderly one.



## Key Eurozone Bond Yields

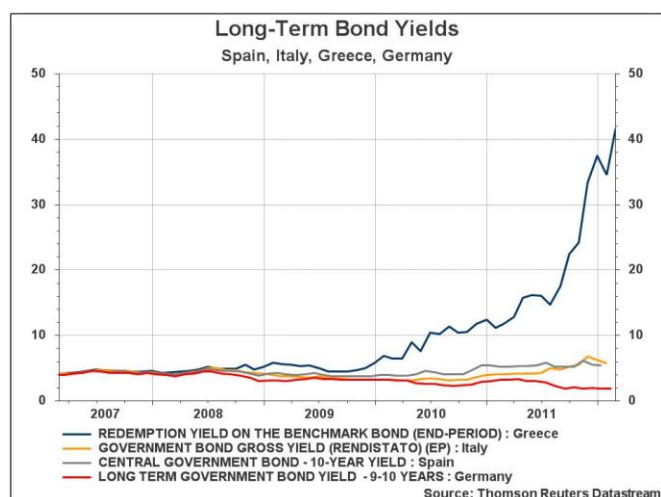


Chart 1

## Key Eurozone Growth Trends

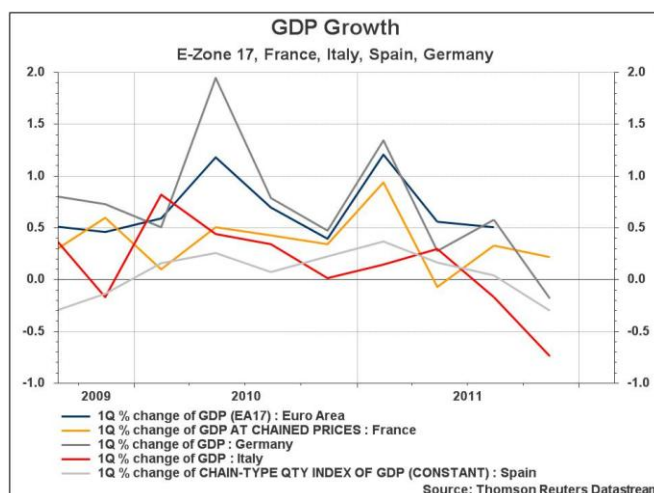


Chart 2

## Major Conflict Events Impact on Crude Prices

### Crude Oil Spot Prices US Dollars Per Barrel

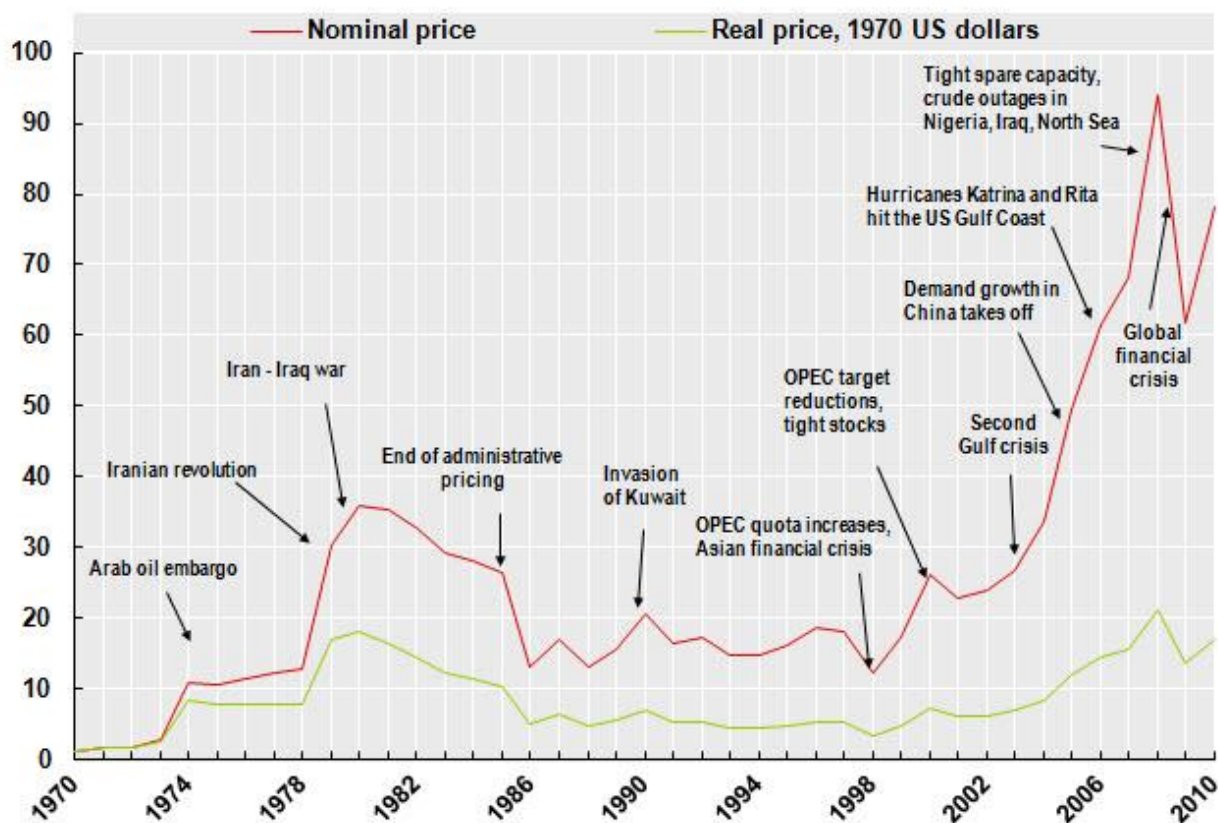
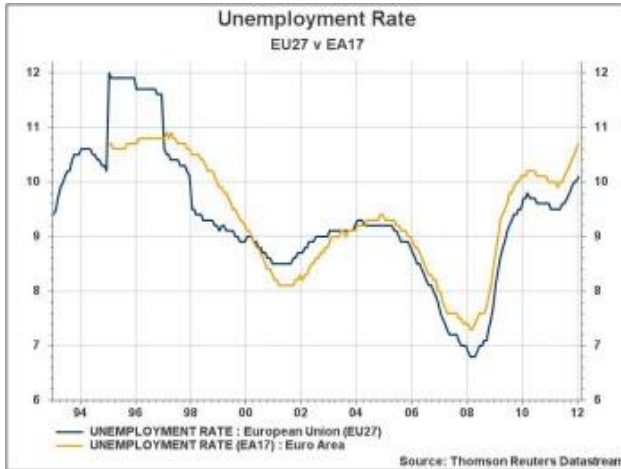


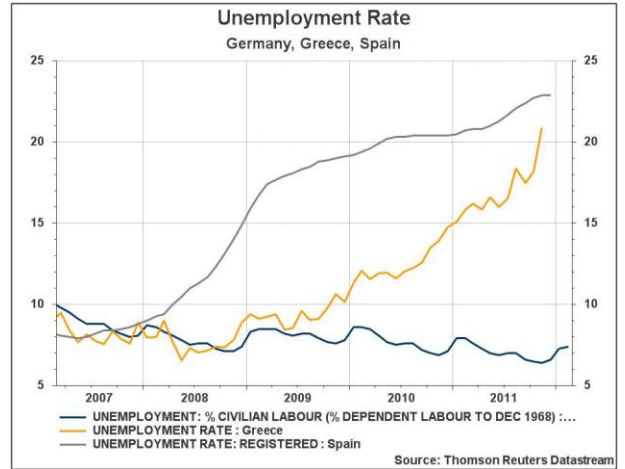
Chart 3

Source: OECD

# Unemployment in the Eurozone



Charts 4



Charts 5

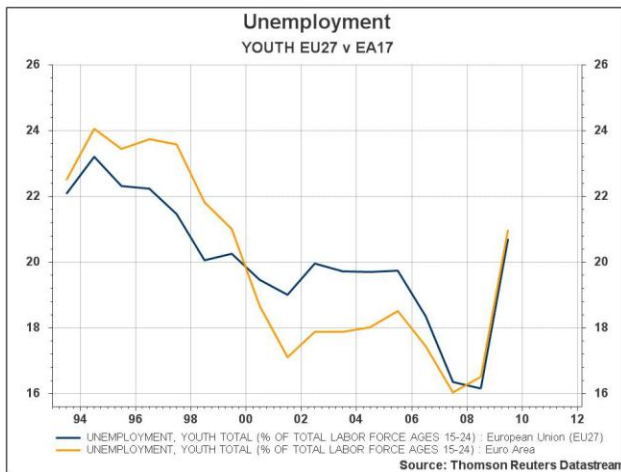
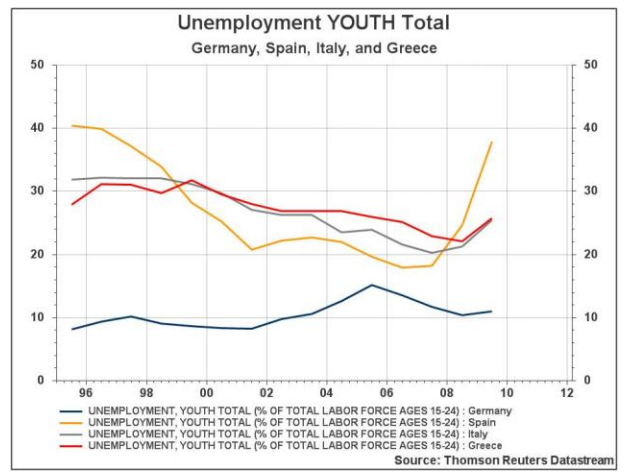


Chart 6



Charts 7

## Focus: Eurozone-Four Possible Economic Scenarios

There are enough factors in the mix that is the Eurozone that the variations of “the cake that could be baked” might seem unlimited. Broadly speaking, however, the outcomes may be categorized as follows: No Greek Default, Orderly Greek Default, Disorderly Greek Default and Iran War.

These four economic scenarios were constructed by considering changes in each of the driving factors as shown in the following table:

**The Scenario Box: No Greek Default, Orderly Greek Default, Disorderly Greek Default , and Iran War**

Scenario	DOLLAR/EURO	GOLD	FTSE, OTHERS	YIELD CURVE			EQUITY MARKETS	ENERGY INDEX
Scenario	Dollar/Euro	Gold	Ezone Recession	Ezone Bond Yields	Ezone Bank Liquidity Problems KEBITR	Credit Tightens	Volatility VIX, GVDAXX	Higher Energy (Iran) PCIUMFU
No Greek Default	dollar falls	falls	decreases	yields fall	yields fall	yields fall	VIX falls	rises
Orderly Greek Default	no change	no change	no change	yields soar	yields soar	yields soar	VIX rises	no change
Disorderly Greek Default	dollar rises	falls	increases	yields soar	yields soar	yields soar	VIX soars	falls
Iran War	no change	falls	increases	yields rise	yields rise	yields rise	VIX rises sharply	rises sharply

These changes were then analyzed in terms of their impact on the 18 MacroRisk Factors (described below) and from there on the Indexes and ETFs that are being analyzed.

## Focus: Eurozone-Four Possible Economic Scenarios

Of our 18 MacroRisk Factors, which generally explain over 90% of the variance of most ETFs, stocks, funds, and indexes, we focused on the FTSE 100, the Gold Price Index, the Dollar/Euro Exchange Rate, the yield curve, and an Energy Price Index.

In addition, we considered movements in certain indexes: (1) movements in the Eurozone Large-Cap Bank Returns Index (KEBITR), due to the potential impact on larger European banks from a Greek default or Iran war; (2) movements in the DAX Volatility Index (DAX), used to reflect general concern in the German economy as a proxy for “healthy Europe”; (3) movements in the CBOE Market Volatility Index (VIX), reflecting uncertainty in the U.S. market; and (4), in the instance of an Iran war, movements in the Private Transportation Motor Fuel Cost Index (PCIUMFU), a U.S. index, to proxy the impact of disruptions to the world petroleum supply.

The 18 factors shown in the MacroRisk Status graph are:

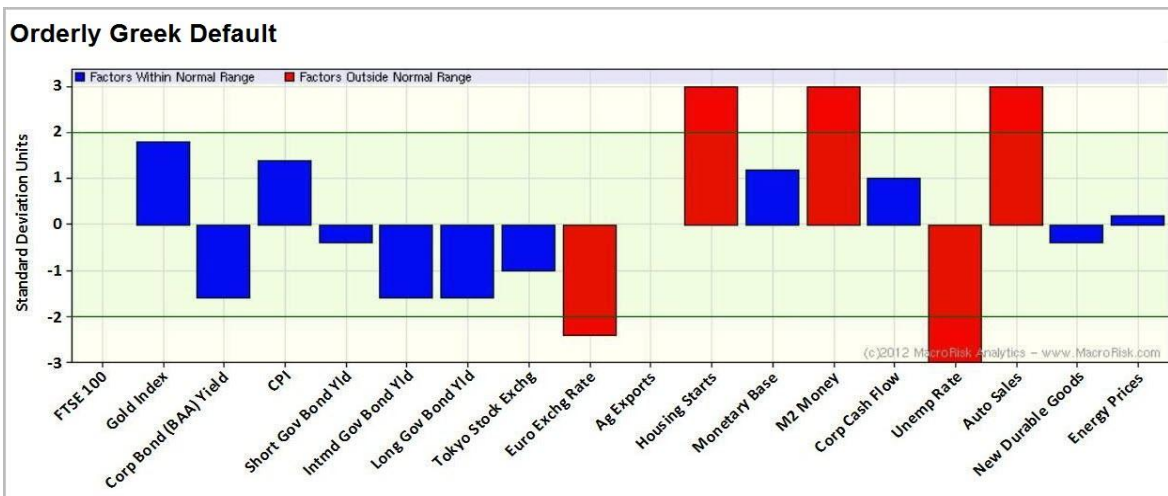
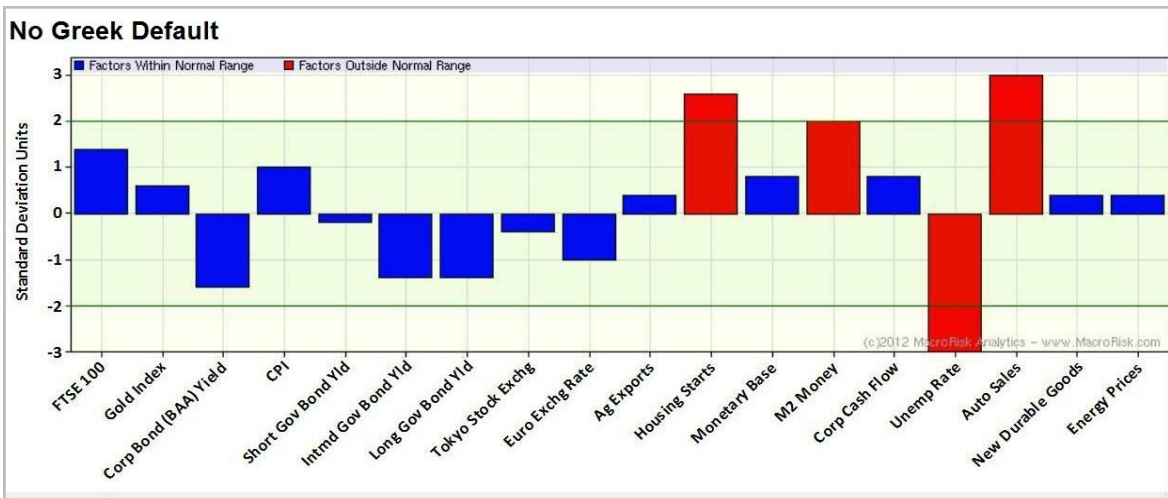
- FTSE 100
- Gold Index
- Corporate Bond (BAA) Yield
- Consumer Price Index
- Short-Term Government Bond Yield
- Intermediate-Term Government Bond Yield
- Long-Term Government Bond Yield
- Tokyo Stock Exchange Index
- Euro Exchange Rate
- Agricultural Exports
- Housing Starts
- Monetary Base
- M2 Money Supply
- Corporate Cash Flow
- Unemployment Rate
- Auto Sales
- New Durable Goods Orders
- Energy Prices

# Eurozone Scenarios at a Glance

The following graphs provide a snapshot of the four scenarios. Each of the 18 MacroRisk Factors has a corresponding bar on the graph: these bars signal whether the value of each Factor is higher or lower than normal. If the bar sits on top of the line, the value is higher than average, if the bar hangs down from the line, the value is lower than average.

On the graph, any MacroRisk Factors that are inside the green zone are behaving normally. These are colored blue. The closer the bar is to the edge of the green "normal" zone, the more the Factor has been changing recently.

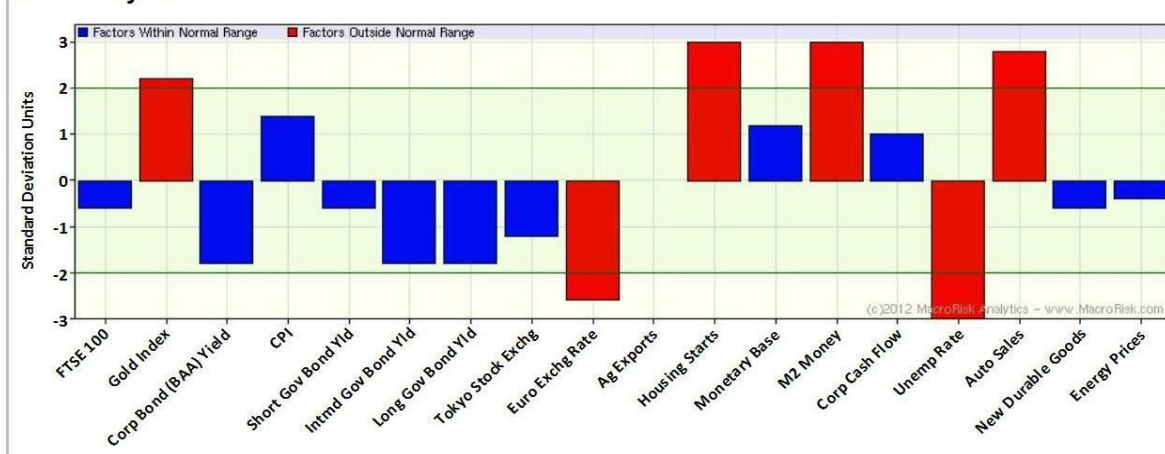
If a Factor goes up or down significantly, the bar crosses the green boundary line and turns red, indicating a level of risk potential.



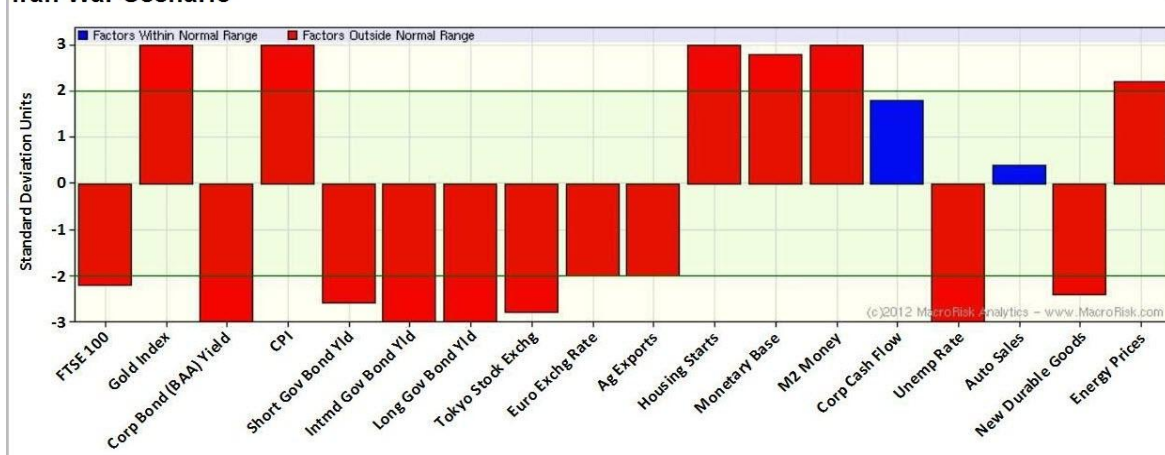
Source: MacroRisk Analytics

# Eurozone Scenarios at a Glance

## Disorderly Greek Default



## Iran War Scenario



Source: MacroRisk Analytics



# Scenario-Based Optimized ETF Portfolios

Please note that in general, the optimized portfolios may be regarded as representative of a “forward-looking” perspective of six months out, timed from events that trigger each respective scenario.

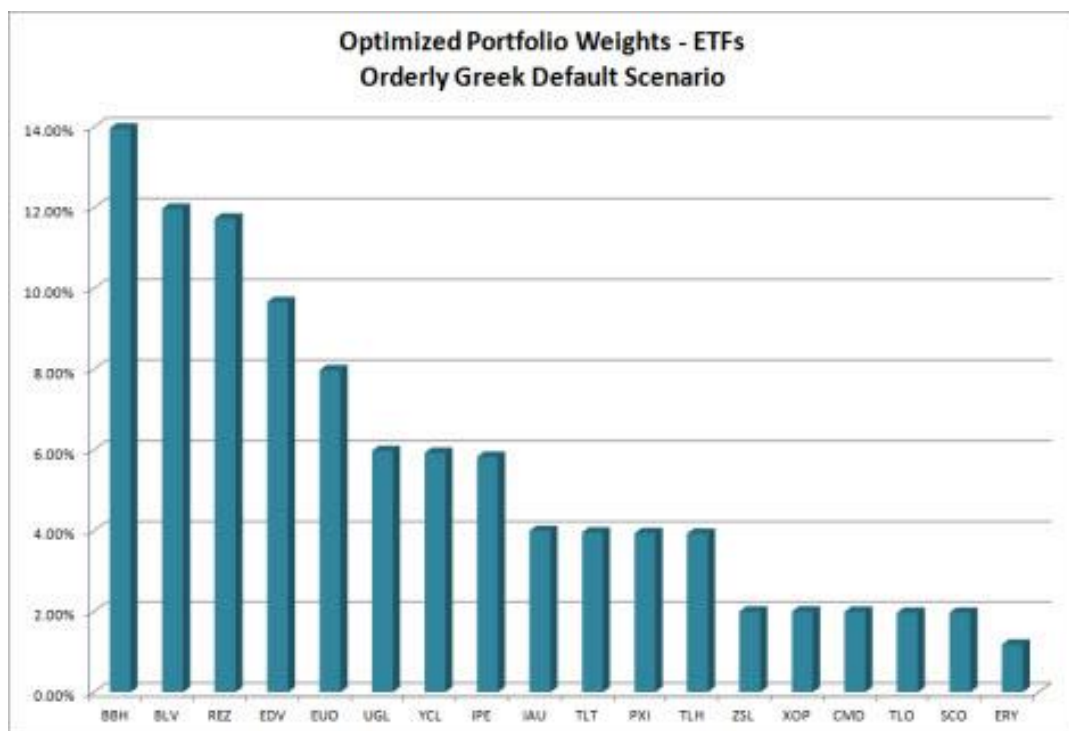
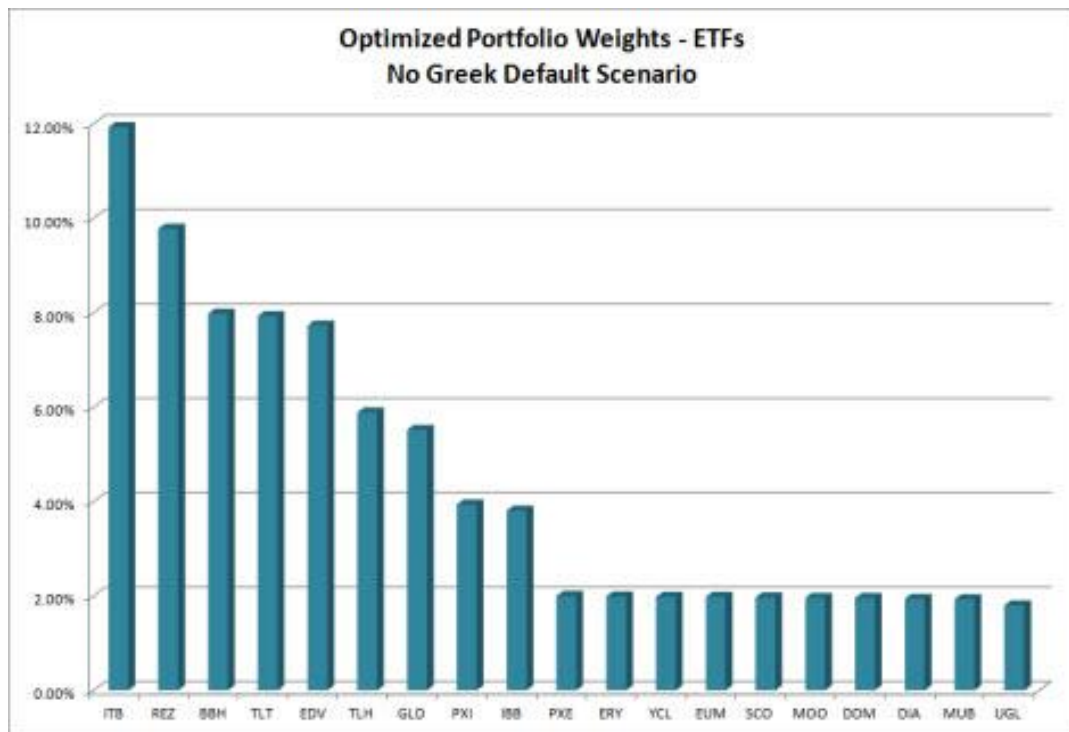
Optimized Portfolio of ETFs		
No Greek Default Scenario		
ETF Name	Symbol	Weight
Vanguard Long Term Bond Index Fund	BLV	15.97%
iShares DJ-Home Construction	ITB	11.93%
iShares Residential Plus Capped Index Fund	REZ	9.78%
Market Vectors Biotech	BBH	7.98%
iShares Barclays 20+ Year Treasury	TLT	7.93%
Vanguard Extended Duration Treasury	EDV	7.73%
iShares Barclays 10-20 Year Treasury	TLH	5.89%
SPDR Gold Trust Gold Shares	GLD	5.52%
Powershares Energy Sector Portfolio	PXI	3.94%
iShares Nasdaq Biotechnology Index Fund	IBB	3.81%
Powershares Energy and Exploration Portfolio	PXE	2.00%
Direxion Shares Energy 3X Bear	ERY	1.99%
Proshares Ultra Yen	YCL	1.98%
ProShares Short MSCI Emerging Markets	EUM	1.98%
Ultrashort DJ-AIG Crude Oil	SCO	1.97%
Market Vectors Agribusiness ETF	MOO	1.96%
Proshares Ultra Dow 30	DDM	1.96%
SPDR Dow Jones Industrial Average	DIA	1.94%
iShares Nat'l AMT-Free Municipal Bond Fund	MUB	1.93%
Proshares Ultra Gold	UGL	1.80%

Optimized Portfolio of ETFs		
Orderly Greek Default Scenario		
ETF Name	Symbol	Weight
Market Vectors Biotech	BBH	13.97%
Vanguard Long Term Bond Index Fund	BLV	11.98%
iShares Residential Plus Capped Index Fund	REZ	11.74%
Vanguard World Fund Extended Duration Treasury	EDV	9.67%
Proshares Ultrashort Euro	EUO	7.98%
Proshares Ultra Gold	UGL	5.98%
Proshares Ultra Yen	YCL	5.93%
SPDR Series Trust Barclays TIPS	IPE	5.83%
iShares Gold Trust	IAU	4.00%
iShares Barclays 20+ Year Treasury	TLT	3.96%
Powershares Energy Sector Portfolio	PXI	3.94%
iShares Barclays 10-20 Year Treasury	TLH	3.93%
Proshares Short Silver	ZSL	2.00%
SPDR Series S&P Oil and Gas Exploration	XOP	2.00%
ProShares Ultrashort DJ-UBS Commodities	CMD	1.99%
SPDR Series Barclays Long-Term Treasury	TLO	1.97%
Ultrashort DJ-AIG Crude Oil	SCO	1.97%
Direxion Shares Energy 3X Bear	ERY	1.18%

Optimized Portfolio of ETFs		
Disorderly Greek Default Scenario		
ETF Name	Symbol	Weight
Market Vectors Biotech	BBH	15.97%
Vanguard Long Term Bond Index Fund	BLV	13.97%
Proshares Ultrashort Euro	EUO	11.50%
Proshares Ultra Gold	UGL	7.97%
SPDR Series Barclays Long-Term Treasury	TLO	7.86%
iShares Barclays 10-20 Year Treasury	TLH	7.85%
iShares Residential Plus Capped Index Fund	REZ	7.83%
SPDR Series Trust Barclays TIPS	IPE	5.83%
Vanguard Extended Duration Treasury	EDV	5.80%
SPDR Gold Trust Gold Shares	GLD	5.52%
Powershares Energy Sector Portfolio	PXI	3.94%
Proshares Short Silver	ZSL	2.00%
Proshares Ultra Yen	YCL	1.98%
Ultrashort DJ-AIG Crude Oil	SCO	1.97%
Direxion Emerging Markets 3X Bear	EDZ	0.01%

Optimized Portfolio of ETFs		
Iran War Scenario		
ETF Name	Symbol	Weight
Vanguard Long Term Bond Index Fund	BLV	21.95%
iShares Barclays 10-20 Year Treasury	TLH	19.63%
SPDR Series Barclays Long-Term Treasury	TLO	11.79%
Proshares Ultra Yen	YCL	9.89%
Market Vectors Indonesia Index	IDX	5.92%
Ultrashort DJ-AIG Crude Oil	SCO	5.91%
Vanguard Extended Duration Treasury	EDV	5.80%
SPDR Gold Trust Gold Shares	GLD	3.68%
iShares Barclays 7-10 Year Treasury	IEF	1.99%
Proshares Ultra Gold	UGL	1.99%
iShares Barclays 20+ Year Treasury	TLT	1.98%
SPDR Barclays Capital New York Municipal Bond	INY	1.98%
iShares Residential Plus Capped Index Fund	REZ	1.96%
ProShares Ultra Utilities	UPW	1.96%
SPDR Series Trust Barclays TIPS	IPE	1.94%
Proshares Short Silver	ZSL	1.62%

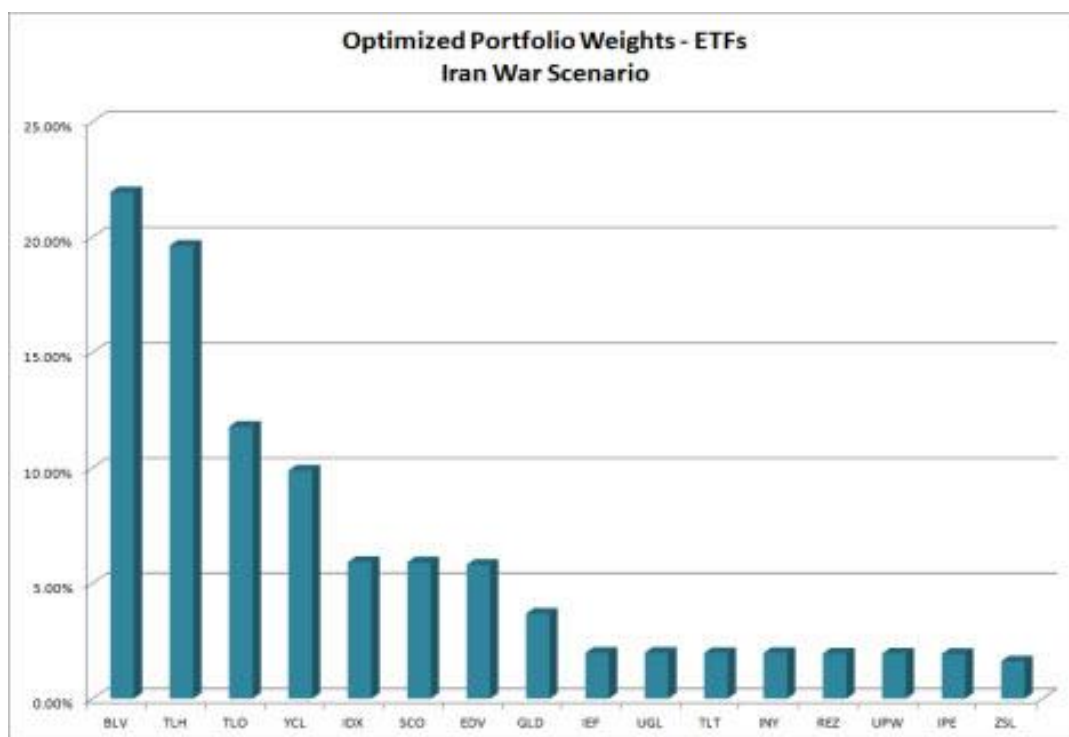
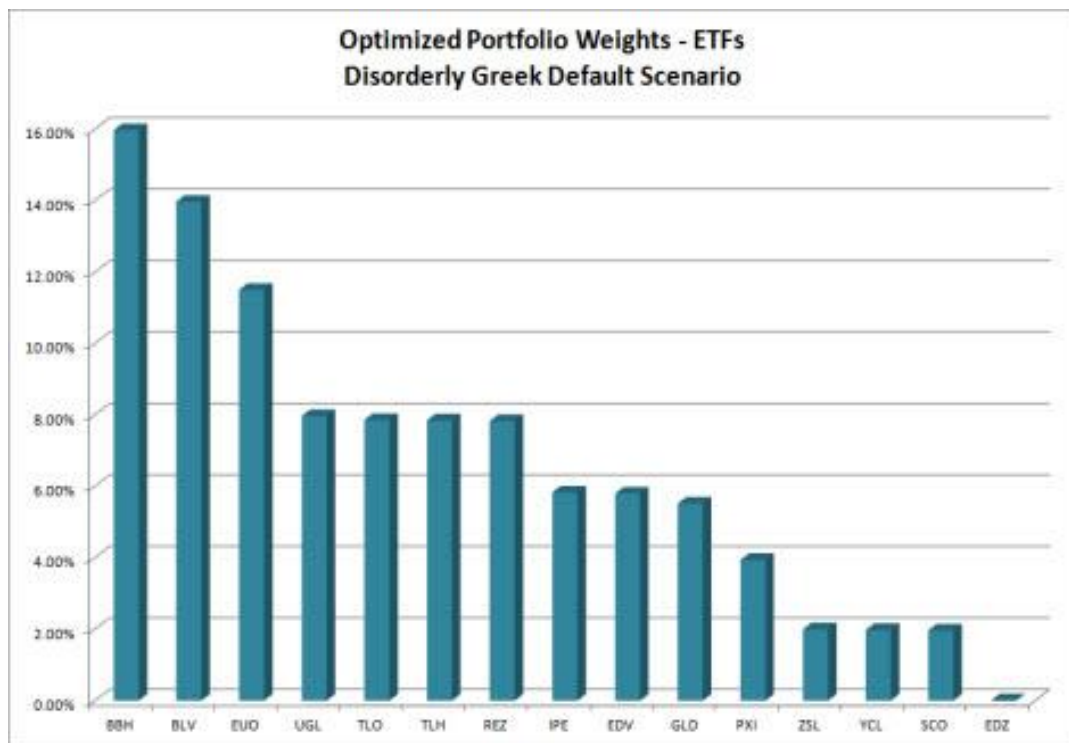
## Charts of Optimized ETF Portfolio Weights



Source: MacroRisk Analytics



## Charts of Optimized ETF Portfolio Weights



Source: MacroRisk Analytics

# Scenario-Based Strong/Weak Stock Performers

The Top 20 Scenario-Specific Performance Rankings on this page and the next use Sabrient's award-winning proprietary quantitative methodology to identify stocks that should outperform the benchmarks based on single macro-economic events.

The Strong Dollar Performers are the top 20 stocks that our model indicates will outperform the market during periods of a rising U.S. dollar. The Weak Dollar Performers list the top 20 stocks that we believe will outperform the market during a weak-dollar environment, and could be looked at as "defensive dollar" stocks.

Sabrient's Top 20 Scenario-Specific Performance Rankings						
Strong Dollar Performers						
Ticker	Stock	Sector Name	Industry Name	Price (3-2-12)	MktCap (Mil)	Ranked Performance
CV	Central Vermont Public Service	Utilities	Electric Utilities	35.25	472.23	89
ORLY	O'Reilly Automotive, Inc.	Consumer Discretionary	Automotive Retail	88.33	10,516.48	83
LMT	Lockheed Martin Corporation	Industrials	Aerospace & Defense	88.50	22,160.14	82
ALGT	Allegiant Travel Company	Industrials	Airlines	49.11	847.64	81
AZO	AutoZone, Inc.	Consumer Discretionary	Automotive Retail	378.45	9,856.05	80
CASY	Caseys General Stores, Inc.	Consumer Staples	Food Retail	50.33	1,957.39	80
RAH	Ralcorp Holdings, Inc.	Consumer Staples	Packaged Foods & Meats	74.30	4,866.68	79
SR	Standard Register Company	Industrials	Commercial Printing	1.63	24.56	79
HTLD	Heartland Express, Inc.	Industrials	Trucking	14.35	867.31	79
DLTR	Dollar Tree, Inc.	Consumer Discretionary	General Merchandise Stores	90.62	10,198.06	79
KMB	Kimberly-Clark Corporation	Consumer Staples	Household Products	72.34	28,394.69	79
ED	Consolidated Edison, Inc.	Utilities	Multi-Utilities	58.31	17,284.32	79
PFCB	P.F.Chang's China Bistro, Inc.	Consumer Discretionary	Restaurants	38.08	702.05	78
SO	Southern Company (The)	Utilities	Electric Utilities	44.27	39,131.53	78
DRI	Darden Restaurants, Inc.	Consumer Discretionary	Restaurants	49.75	6,183.86	78
ROST	Ross Stores, Inc.	Consumer Discretionary	Apparel Retail	53.90	11,843.12	78
PCG	Pacific Gas & Electric Co.	Utilities	Multi-Utilities	42.08	16,706.14	78
MNRO	Monro Muffler Brake, Inc.	Consumer Discretionary	Automotive Retail	45.47	1,308.50	78
IBKR	Interactive Brokers Group, Inc.	Financials	Specialized Finance	15.81	592.24	77
MDS	Midas, Inc.	Consumer Discretionary	Automotive Retail	8.79	126.51	77

Sabrient's Top 20 Scenario-Specific Performance Rankings						
Weak Dollar Performers						
Ticker	Stock	Sector Name	Industry Name	Price (3-2-12)	MktCap (Mil)	Ranked Performance
SGY	Stone Energy Corporation	Energy	Oil & Gas Exploration & Production	31.23	1,405.81	87
IO	Ion Geophysical Corporation	Energy	Oil & Gas Equipment & Services	7.01	969.78	84
HAYN	Haynes International, Inc.	Materials	Steel	64.12	760.31	81
CENX	Century Aluminum Company	Materials	Aluminum	9.88	565.16	81
TBI	TrueBlue, Inc.	Industrials	Human Resource & Employment Svcs	16.44	679.18	81
ASTE	Astec Industries, Inc.	Industrials	Construction & Farm Machinery	37.25	684.25	80
BWS	Brown Shoe Company, Inc.	Consumer Discretionary	Apparel Retail	10.47	402.08	79
HW	Headwaters Incorporated	Materials	Construction Materials	3.14	167.59	78
KWR	Quaker Chemical Corporation	Materials	Specialty Chemicals	38.79	587.49	78
MTRX	Matrix Service Company	Energy	Oil & Gas Equipment & Services	12.94	313.89	77
DRH	Diamondrock Hospitality Company	Financials	Specialized REITs	9.85	1,805.67	77
BAS	Basic Energy Services, Inc.	Energy	Oil & Gas Equipment & Services	18.71	520.18	77
CDR	Cedar Realty Trust, Inc.	Financials	Retail REITs	4.69	284.42	76
VRTS	Virtus Investment Partners, Inc.	Financials	Asset Management & Custody Banks	76.11	498.14	75
MKSI	MKS Instruments, Inc.	Information Technology	Semiconductor Equipment	29.29	1,658.25	75
AEGN	Aegion Corp	Industrials	Construction & Engineering	18.12	668.82	75
ERT	eResearch Technology Inc.	Health Care	Life Sciences Tools & Services	6.07	258.13	75
CIR	CIRCOR International, Inc.	Industrials	Industrial Machinery	32.75	667.29	74
KLIC	Kulicke and Soffa Industries	Information Technology	Semiconductor Equipment	11.06	822.23	74
PLFE	Presidential Life Corporatio	Financials	Life & Health Insurance	10.14	247.44	73

# Scenario-Based Strong/Weak Stock Performers

The “oil stocks” tables show similar scenarios for rising and falling oil prices. The Strong Oil Performers list the top 20 stocks that our model indicates will outperform the market in an environment of dramatically rising oil prices. The Weak Oil Performers show the top 20 stocks that should outperform the market when oil prices are low or dropping, and could be considered “defensive oil” stocks.

Please note that the stocks on these lists are intended as long positions and are not recommended for shorting. Future editions of The MacroReport will likely include lists of short candidates for these and other scenarios.

Sabrient's Top 20 Scenario-Specific Performance Rankings						
Strong Oil Performers						
Ticker	Stock	Sector Name	Industry Name	Price (3-2-12)	MktCap (Mil)	Ranked Performance
PCX	Patriot Coal Corporation	Energy	Coal & Consumable Fuels	6.88	705.44	96
ANR	Alpha Natural Resources, Inc.	Energy	Coal & Consumable Fuels	17.39	4,422.50	94
HLX	Helix Energy Solutions Group	Energy	Oil & Gas Equipment & Services	18.88	1,775.11	90
SSI	Stage Stores, Inc.	Consumer Discretionary	Apparel Retail	14.50	474.78	89
ERT	eResearch Technology Inc.	Health Care	Life Sciences Tools & Services	6.08	258.13	87
NOG	Northern Oil and Gas, Inc.	Energy	Oil & Gas Exploration & Production	22.93	1,562.12	86
GEOI	GeoResources, Inc.	Energy	Oil & Gas Exploration & Production	31.71	607.73	86
GPOR	Gulfport Energy Corporation	Energy	Oil & Gas Exploration & Production	32.84	1,467.16	86
LNN	Lindsay Corporation	Industrials	Construction & Farm Machinery	63.02	811.33	85
ACI	Arch Coal, Inc.	Energy	Coal & Consumable Fuels	12.89	3,112.90	85
SFY	Swift Energy Company	Energy	Oil & Gas Exploration & Production	29.38	1,368.22	84
KRA	Kraton Performance Polymers, Inc.	Materials	Specialty Chemicals	27.87	973.64	84
SPAR	Spartan Motors, Inc.	Consumer Discretionary	Auto Parts & Equipment	5.80	217.93	84
CDI	CDI Corporation	Industrials	Human Resource & Employment Svcs	14.61	192.61	84
ROCK	Gibraltar Industries, Inc.	Industrials	Building Products	13.59	490.35	84
PDC	Pioneer Drilling Company	Energy	Oil & Gas Drilling	9.97	554.10	84
AKS	AK Steel Holding Corporation	Materials	Steel	7.76	1,055.32	83
IIVI	II-VI Incorporated	Industrials	Electrical Components & Equipment	22.52	1,288.21	83
TTI	Tetra Technologies, Inc.	Energy	Oil & Gas Equipment & Services	9.07	741.06	82
HZO	MarineMax, Inc.	Consumer Discretionary	Specialty Stores	7.30	190.61	82

Sabrient's Top 20 Scenario-Specific Performance Rankings						
Weak Oil Performers						
Ticker	Stock	Sector Name	Industry Name	Price (3-2-12)	MktCap (Mil)	Ranked Performance
CV	Central Vermont Public Service	Utilities	Electric Utilities	35.25	472.23	90
SO	Southern Company (The)	Utilities	Electric Utilities	44.27	39,131.53	89
CAG	ConAgra Foods, Inc.	Consumer Staples	Packaged Foods & Meats	26.13	11,096.08	88
KMB	Kimberly-Clark Corporation	Consumer Staples	Household Products	72.34	28,394.69	87
DUK	Duke Energy Corporation	Utilities	Electric Utilities	21.04	28,600.45	87
ED	Consolidated Edison, Inc.	Utilities	Multi-Utilities	58.31	17,284.32	87
DLTR	Dollar Tree, Inc.	Consumer Discretionary	General Merchandise Stores	90.62	10,198.06	86
GIS	General Mills, Inc.	Consumer Staples	Packaged Foods & Meats	38.18	25,751.15	86
PCG	Pacific Gas & Electric Co.	Utilities	Multi-Utilities	42.08	16,706.14	86
K	Kellogg Company	Consumer Staples	Packaged Foods & Meats	52.11	12,219.68	86
CPB	Campbell Soup Company	Consumer Staples	Packaged Foods & Meats	33.18	5,686.87	85
MCD	McDonald's Corporation	Consumer Discretionary	Restaurants	99.50	100,684.65	85
FLO	Flowers Foods, Inc.	Consumer Staples	Packaged Foods & Meats	19.46	2,191.60	85
ORLY	O'Reilly Automotive, Inc.	Consumer Discretionary	Automotive Retail	88.33	10,516.48	85
MMI	Motorola Mobility Holdings, Inc	Information Technology	Communications Equipment	39.72	10,192.89	84
PGN	Progress Energy, Inc.	Utilities	Electric Utilities	53.27	16,139.72	84
PEP	Pepsico, Inc.	Consumer Staples	Soft Drinks	62.52	103,779.16	84
HSY	The Hershey Company	Consumer Staples	Packaged Foods & Meats	61.33	9,383.90	84
HNZ	H.J. Heinz Company	Consumer Staples	Packaged Foods & Meats	52.97	16,674.64	84
THS	Treehouse Foods, Inc.	Consumer Staples	Packaged Foods & Meats	56.93	2,032.20	84



# Correlation of Index-Based Returns and Values: MSCI International and Regional Indexes to MSCI Europe Index

These four tables show the MSCI country and regional indexes which have the lowest and highest correlations with the MSCI Europe Index. Correlations of returns illustrate short term information, while correlations of values capture longer trends.

Top 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI Europe Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
EUROPE	1.000	0.543	1.000	0.906
EUROPE EX GERMANY	0.999	0.540	1.000	0.909
EUROPE EX SWITZERLAND	0.999	0.546	1.000	0.910
EMU + UK	0.998	0.545	0.999	0.912
EUROPE EX UK	0.994	0.562	0.998	0.922
EMU	0.990	0.571	0.995	0.933
EUROPE EX EMU	0.988	0.501	0.988	0.846
FRANCE	0.987	0.556	0.993	0.928
GERMANY	0.978	0.547	0.992	0.882
NETHERLANDS	0.975	0.567	0.985	0.930
NORDIC COUNTRIES	0.971	0.533	0.989	0.899
UNITED KINGDOM	0.968	0.474	0.969	0.811
WRLD EX USA	0.962	0.537	0.994	0.921
EAFE	0.958	0.539	0.995	0.915
SWEDEN	0.958	0.505	0.986	0.860

Most of the MSCI country and regional indexes whose returns are most correlated with the MSCI Europe Index are European indexes, but also include the "World Ex-USA" index.

Bottom 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI Europe Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
PHILIPPINES	0.109	0.156	0.146	-0.126
JAPAN	0.227	0.159	0.751	0.784
TAIWAN	0.297	0.214	0.963	0.909
FAR EAST	0.304	0.205	0.839	0.849
INDONESIA	0.329	0.249	0.368	0.170
MALAYSIA	0.369	0.313	0.811	0.652
KOREA	0.383	0.275	0.893	0.714
AC FAR EAST	0.388	0.267	0.942	0.890
AC ASIA	0.405	0.279	0.945	0.897
GOLDEN DRAGON	0.410	0.271	0.969	0.912
EM FAR EAST	0.418	0.295	0.955	0.849
CHINA	0.419	0.276	0.963	0.902
THAILAND	0.421	0.308	0.638	0.524
HONG KONG	0.424	0.255	0.946	0.895
ZHONG HUA	0.425	0.273	0.960	0.902

Among MSCI country and regional indexes, Asian countries and Far East regions have the lowest return correlations to the MSCI Europe Index.

Top 15 Correlations of Values of MSCI International and Regional Indexes to MSCI Europe Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
EUROPE	1.000	0.543	1.000	0.906
EUROPE EX GERMANY	0.999	0.540	1.000	0.909
EUROPE EX SWITZERLAND	0.999	0.546	1.000	0.910
EMU + UK	0.998	0.545	0.999	0.912
EUROPE EX UK	0.994	0.562	0.998	0.922
EAFE	0.958	0.539	0.995	0.915
EMU	0.990	0.571	0.995	0.933
WRLD EX USA	0.962	0.537	0.994	0.921
FRANCE	0.987	0.556	0.993	0.928
EAFE EX UK	0.930	0.545	0.992	0.927
GERMANY	0.978	0.547	0.992	0.882
NORDIC COUNTRIES	0.971	0.533	0.989	0.899
BELGIUM	0.957	0.555	0.988	0.911
EUROPE EX EMU	0.988	0.501	0.988	0.846
SWEDEN	0.958	0.505	0.986	0.860

The MSCI national indexes of France, Germany, Belgium, and Sweden have the highest correlation of values with the MSCI Europe index.

Bottom 15 Correlations of Values of MSCI International and Regional Indexes to MSCI Europe Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
PHILIPPINES	0.109	0.156	0.146	-0.126
INDONESIA	0.329	0.249	0.368	0.170
NEW ZEALAND	0.633	0.409	0.539	0.371
THAILAND	0.421	0.308	0.638	0.524
JAPAN	0.227	0.159	0.751	0.784
USA	0.729	0.351	0.801	0.568
MALAYSIA	0.369	0.313	0.811	0.652
SOUTH EAST ASIA	0.549	0.384	0.827	0.693
FAR EAST	0.304	0.205	0.839	0.849
NORTH AMERICA	0.753	0.366	0.852	0.645
KOREA	0.383	0.275	0.893	0.714
IRELAND	0.932	0.556	0.901	0.680
GREECE	0.543	1.000	0.906	1.000
WRLD EX EUROPE	0.794	0.404	0.908	0.735
INDIA	0.454	0.307	0.915	0.910

When comparing the MSCI country and regional indexes whose values are least correlated to the MSCI Europe Index, Far East indexes are joined by the USA, New Zealand, Ireland, and Greece.

# Correlation of Index-Based Returns and Value: MSCI International and Regional Indexes to MSCI Greece Index

These four tables show the MSCI country and regional indexes which have the lowest and highest correlations with the MSCI Greece Index. Correlations of returns illustrate short-term information, while correlations of values capture longer trends. Please note that most of these correlations are significantly weaker than the previous correlations to the MSCI Europe Index.

Top 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI Greece Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
GREECE	0.543	1.000	0.906	1.000
EMU	0.990	0.571	0.995	0.933
PORTUGAL	0.868	0.569	0.920	0.966
NETHERLANDS	0.975	0.567	0.985	0.930
DENMARK	0.893	0.565	0.976	0.900
AUSTRIA	0.922	0.563	0.973	0.961
EUROPE EX UK	0.994	0.562	0.998	0.922
FRANCE	0.987	0.556	0.993	0.928
IRELAND	0.932	0.556	0.901	0.680
BELGIUM	0.957	0.555	0.988	0.911
ITALY	0.948	0.548	0.977	0.950
GERMANY	0.978	0.547	0.992	0.882
EUROPE EX SWITZERLAND	0.999	0.546	1.000	0.910
EMU + UK	0.998	0.545	0.999	0.912
EAFE EX UK	0.930	0.545	0.992	0.927

The MSCI national indexes of Portugal, the Netherlands, Denmark, and Austria have the highest correlation of returns with the MSCI Greece index.

Bottom 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI Greece Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
PHILIPPINES	0.109	0.156	0.146	-0.126
JAPAN	0.227	0.159	0.751	0.784
FAR EAST	0.304	0.205	0.839	0.849
TAIWAN	0.297	0.214	0.963	0.909
INDONESIA	0.329	0.249	0.368	0.170
HONG KONG	0.424	0.255	0.946	0.895
AC FAR EAST	0.388	0.267	0.942	0.890
GOLDEN DRAGON	0.410	0.271	0.969	0.912
ZHONG HUA	0.425	0.273	0.960	0.902
KOREA	0.383	0.275	0.893	0.714
CHINA	0.419	0.276	0.963	0.902
AC ASIA	0.405	0.279	0.945	0.897
EM FAR EAST	0.418	0.295	0.955	0.849
PACIFIC	0.465	0.303	0.919	0.883
INDIA	0.454	0.307	0.915	0.910

When listing the MSCI country and regional indexes whose returns are least correlated to the MSCI Greece Index, Far East indexes dominate the list.

Top 15 Correlations of Values of MSCI International and Regional Indexes to MSCI Greece Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
GREECE	0.543	1.000	0.906	1.000
PORTUGAL	0.868	0.569	0.920	0.966
AUSTRIA	0.922	0.563	0.973	0.961
ITALY	0.948	0.548	0.977	0.950
SPAIN	0.936	0.540	0.967	0.950
CANADA	0.830	0.434	0.953	0.936
FINLAND	0.939	0.512	0.966	0.935
EMU	0.990	0.571	0.995	0.933
NETHERLANDS	0.975	0.567	0.985	0.930
FRANCE	0.987	0.556	0.993	0.928
EAFE EX UK	0.930	0.545	0.992	0.927
EUROPE EX UK	0.994	0.562	0.998	0.922
WRLD EX USA	0.962	0.537	0.994	0.921
EAFE	0.958	0.539	0.995	0.915
GOLDEN DRAGON	0.410	0.271	0.969	0.912

Most of the MSCI country and regional indexes whose index values are most correlated with the MSCI Greece Index are other European national indexes.

Bottom 15 Correlations of Values of MSCI International and Regional Indexes to MSCI Greece Index				
MSCI Index	Correlation of Returns		Correlation of Values	
	to the MSCI: Europe Index	to the MSCI: Greece Index	to the MSCI: Europe Index	to the MSCI: Greece Index
PHILIPPINES	0.109	0.156	0.146	-0.126
INDONESIA	0.329	0.249	0.368	0.170
NEW ZEALAND	0.633	0.409	0.539	0.371
THAILAND	0.421	0.308	0.638	0.524
USA	0.729	0.351	0.801	0.568
NORTH AMERICA	0.753	0.366	0.852	0.645
MALAYSIA	0.369	0.313	0.811	0.652
IRELAND	0.932	0.556	0.901	0.680
SOUTH EAST ASIA	0.549	0.384	0.827	0.693
KOREA	0.383	0.275	0.893	0.714
WRLD EX EUROPE	0.794	0.404	0.908	0.735
WRLD EX EMU	0.865	0.440	0.934	0.767
JAPAN	0.227	0.159	0.751	0.784
UNITED KINGDOM	0.968	0.474	0.969	0.811
SWITZERLAND	0.911	0.470	0.953	0.821

Among MSCI country and regional indexes, Asian countries and Far East regions also have the lowest value correlations, but are joined by the New Zealand, the USA, Ireland, the UK, and Switzerland.



# Correlation of ETFs to Athens Stock Index: Returns and Values

The following four tables list the ETFs with the highest and lowest correlations to the Athens Stock Exchange index. The tables include correlations of returns, which illustrate short-term information, as well as correlations of the index values which capture longer term trends.

The ETFs whose returns have the lowest correlations with the Athens Stock Exchange include U.S. Bear funds, while the highest correlation of returns include a wider variety of funds. U.S. Government Bond ETFs have the lowest correlation of values, while the related inverse ETFs join other funds with the highest correlation of values.

Correlations of ETFs to the Athens Stock Exchange			
Top 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
ISHARES TR S&P TARGET 30	TZL	0.4292	0.6274
ISHARES TR ENERGY IDX FD	AXEN	0.3940	0.8316
VANGUARD TOTAL INTNL STOCK E INTL STOCK ETF	VXUS	0.3931	0.9087
POWERSHARES ETF TRUST II GLOBAL STL ETF	PSTL	0.3900	0.9597
ISHARES TR MSCI EURO FINL	EUFN	0.3890	0.9485
REVENUESHARES ETF TR S&P500 FINL FD	RWW	0.3867	0.9025
PROSHARES TR ULTR MSCI ETF	EFO	0.3786	0.9203
ISHARES INC MSCI AUSTRIA IN	EWO	0.3782	0.9479
ISHARES TR IRLND CPD INVT	EIRL	0.3724	0.7534
WISDOMTREE TR LARGECP GRWTH	ROI	0.3665	0.5209
ISHARES TR S&P MODERATE	AOM	0.3635	0.2170
WISDOMTREE TRUST EUROPE SMCP DV	DPE	0.3595	0.9024
ISHARES TR MSCI ACWI EX	AXFN	0.3591	0.9383
POWERSHARES ETF TRUST II KBW YIELD REIT	KBWY	0.3570	0.5986
CLAYMORE EXCHANGE TRD FD TR GUGG SHIPPNG ET	SEA	0.3561	0.9769

Correlations of ETFs to the Athens Stock Exchange			
Bottom 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
PROSHARES TR ULSH MSCI EURP	EPV	-0.3321	-0.1299
BARCLAYS BK PLC IPTH S&P VIX NE	VXX	-0.3248	-0.5742
PROSHARES TR II VIX SHTRM FUT	VIXY	-0.3243	-0.5576
PROSHARES TR PSHS ULT SH MS	EFU	-0.3227	-0.4534
DIREXION SHS ETF TR DLY DEV MKT BE	DPK	-0.3207	-0.1877
PROSHARES TR PSHS SH MSCI E	EFZ	-0.3180	-0.6574
DIREXION SHS ETF TR LATN AM BEAR3X	LHB	-0.3164	-0.1394
PROSHARES TR ULSH MSCI BRZL	BZQ	-0.3155	-0.4860
PROSHARES TR II VIX MDTRM FUTR	VIXM	-0.3125	-0.5726
PROSHARES TR PSHS SH MSCI E	EUM	-0.3069	-0.5530
PROSHARES TR ULTRA SH DOW30	SDOW	-0.3051	0.4100
PROSHARES TR PSHS SHORT DOW	DOG	-0.3046	0.2208
DIREXION SHS ETF TR DLY EM BR3X NEW	EDZ	-0.3036	-0.1324
PROSHARES TR PSHS ULTASH DW	DXD	-0.3014	0.3193
PROSHARES TR SHT MSCI NEW	EEV	-0.3010	-0.3593

Correlations of ETFs to the Athens Stock Exchange			
Top 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
MARKET VECTORS ETF TR SOLAR ENRG ETF	KWT	0.2564	0.9891
POWERSHARES ETF TRUST WDRHLL CLN EN	PBW	0.2457	0.9879
MARKET VECTORS ETF TR GBL ALTER ENRG	GEX	0.2695	0.9856
PROSHARES TR PSHS ULTSH 20YR	TBT	0.2046	0.9842
PROSHARES TR SHRT 20+YR TRE	TBF	0.1970	0.9812
POWERSHARES ETF TRUST LX NANOTCH PTF	PXN	0.2751	0.9812
FIRST TR ISE GBL PLAT INDX	PLTM	0.3017	0.9811
DIREXION SHS ETF TR 7 10YR TRES BEA	TYO	0.2049	0.9799
PROSHARES TR PSHS ULTSH 7-1	PST	0.1966	0.9794
FIRST TR EXCHANGE TRADED FD NAS CLNEDG GRE	QCLN	0.2521	0.9772
CLAYMORE EXCHANGE TRD FD TR GUGG SHIPPNG ET	SEA	0.3561	0.9769
ISHARES TR S&P GLBIDX ETF	ICLN	0.3124	0.9750
POWERSHARES GLOBAL ETF TRUST GBL CLEAN ENER	PBD	0.2985	0.9735
ISHARES TR MSCI CHIN SMCP	ECNS	0.3196	0.9603
POWERSHARES ETF TRUST II GLOBAL STL ETF	PSTL	0.3900	0.9597

Correlations of ETFs to the Athens Stock Exchange			
Bottom 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
PIMCO ETF TR 15YR US TRS FD	TRSY	-0.1433	-0.9817
POWERSHARES GLOBAL ETF TRUST I-30 LAD TREAS	PLW	-0.1871	-0.9786
ISHARES TR BARCLYS 10-20YR	TLH	-0.2159	-0.9780
PIMCO ETF TR 7-15 YR US TRS	TENZ	-0.2215	-0.9766
VANGUARD BD INDEX FD INC LONG TERM BOND	BLV	-0.1245	-0.9763
ISHARES TR BARCLYS 7-10 YR	IEF	-0.2009	-0.9759
VANGUARD SCOTTS DALE FDS LONG-TERM GOV	VGLT	-0.2262	-0.9751
SPDR SERIES TRUST BRCLYS LG TRS	TLO	-0.2260	-0.9747
PROSHARES TR ULTR 7-10 TREA	UST	-0.2318	-0.9744
DIREXION SHS ETF TR 7 10YR TRES BU	TYD	-0.1994	-0.9731
ISHARES TR 10+YR GOVT/CR	GLJ	-0.0795	-0.9729
VANGUARD SCOTTS DALE FDS INT-TERM GOV	VGIT	-0.1977	-0.9726
SCHWAB STRATEGIC TR INTRM TRM TRES	SCHR	-0.1788	-0.9725
SPDR SERIES TRUST BRCLYS INTER E	ITE	-0.1491	-0.9725
ISHARES TR BARCLYS 20+ YR	TLT	-0.1969	-0.9722

# Correlation of ETFs to KBW Large Cap Banking Index: Returns and Values

The following four tables list the ETFs with the highest and lowest correlations with the Keefe, Bruyette, & Woods Bank Sector index (BKX). The tables include correlations of returns, which illustrate short-term information, as well as correlations of the index values which capture longer term trends.

Several national and regional index ETFs are present among those with the highest returns and values correlations to the BKX, while Government Bond ETFs also fill the bottom 15 lowest correlations to the BKX.

Correlations of ETFs to the KBW Large Cap Banking Index			
Top 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
ISHARES TR MSCI EURO FINL	EUFN	0.8720	0.9950
VANGUARD TOTAL INTNL STOCK E INTL STOCK ETF	VXUS	0.8575	0.9620
SPDR INDEX SHS FDS EURO STOXX 50	FEZ	0.8095	0.9733
SPDR INDEX SHS FDS STOXX EUR 50 E	FEU	0.8067	0.9409
ISHARES INC MSCI ITALY	EWI	0.8014	0.9870
ISHARES INC MSCI FRANCE	EWQ	0.7978	0.9692
ISHARES INC MSCI EMU INDEX	EZU	0.7966	0.9745
PROSHARES TR ULTR MSCI ETF	EFO	0.7931	0.9754
POWERSHARES GLOBAL ETF TRUST DEV INTL OPP	PFA	0.7907	0.9568
ISHARES INC MSCI AUSTRIA IN	EWO	0.7899	0.9787
SPDR SERIES TRUST GLB DOW ETF	DGT	0.7897	0.9536
ISHARES TR S&P GBL FIN	IXG	0.7876	0.9761
ISHARES TR S&P EURO PLUS	IEV	0.7797	0.9530
ISHARES INC MSCI GERMAN	EWG	0.7762	0.9365
POWERSHARES GLOBAL ETF TRUST DEV MKTS EX-US	PXF	0.7753	0.9768

Correlations of ETFs to the KBW Large Cap Banking Index			
Bottom 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
PROSHARES TR ULSH MSCI EURP	EPV	-0.7572	-0.3169
DIREXION SHS ETF TR DLY DEV MKT BE	DPK	-0.7570	-0.3622
PROSHARES TR PSHS ULT SH MS	EFU	-0.7564	-0.6104
PROSHARES TR PSHS SH MSCI E	EFZ	-0.7556	-0.7882
DIREXION SHS ETF TR DLY EM BR3X NEW	EDZ	-0.7144	-0.2761
PROSHARES TR PSHS SH MSCI E	EUM	-0.7138	-0.6704
PROSHARES TR SHT MSCI NEW	EEV	-0.7112	-0.4929
PROSHARES TR ULSH MSCI BRZL	BZQ	-0.6929	-0.5891
DIREXION SHS ETF TR LATN AM BEAR3X	LHB	-0.6920	-0.2581
PROSHARES TR PSHS SHORT DOW	DOG	-0.6847	0.0689
PROSHARES TR ULTRA SH DOW30	SDOW	-0.6842	0.2675
PROSHARES TR PSHS ULTASH DW	DXD	-0.6841	0.1716
POWERSHS DB US DOLLAR INDEX DOLL INDX BULL	UUP	-0.6725	-0.4718
PROSHARES TR PSHS CONSUMR G	SZK	-0.6721	0.4474
PROSHARES TR ULT SHR S&P500	SPXU	-0.6709	0.1218

Correlations of ETFs to the KBW Large Cap Banking Index			
Top 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
ISHARES TR MSCI EURO FINL	EUFN	0.8720	0.9950
SPDR INDEX SHS FDS INTL FINL ETF	IPF	0.6934	0.9881
ISHARES INC MSCI ITALY	EWI	0.8014	0.9870
CLAYMORE EXCHANGE TRD FD TR GUGG SHIPNG ET	SEA	0.6576	0.9845
FIRST TR EXCHANGE TRADED FD NAS CLNEDG GRE	QCLN	0.5686	0.9829
DIREXION SHS ETF TR DLY DEV MKT BU	DZK	0.7587	0.9815
POWERSHARES GLOBAL ETF TRUST GBL CLEAN ENER	PBD	0.6833	0.9790
ISHARES INC MSCI AUSTRIA IN	EWO	0.7899	0.9787
POWERSHARES ETF TRUST WNDRHLL CLN EN	PBW	0.5789	0.9778
ISHARES INC MSCI NETHR INV	EWN	0.7713	0.9775
POWERSHARES ETF TRUST LX NANOTCH PTF	PXN	0.6142	0.9774
ISHARES INC MSCI ISRAEL FD	EIS	0.6533	0.9772
ISHARES TR MSCI ACWI EX	AXFN	0.5585	0.9770
FIRST TR EXCH TRADED FD II NASDQ CLN EDGE	GRID	0.7330	0.9770
POWERSHARES GLOBAL ETF TRUST DEV MKTS EX-US	PXF	0.7753	0.9768

Correlations of ETFs to the KBW Large Cap Banking Index			
Bottom 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
ISHARES TR BARCLYS 10-20YR	TLH	-0.6066	-0.9769
POWERSHARES GLOBAL ETF TRUST I-30 LAD TREAS	PLW	-0.5778	-0.9749
PIMCO ETF TR 15YR US TRS FD	TRSY	-0.2332	-0.9737
PROSHARES TR ULTR 7-10 TREA	UST	-0.5956	-0.9728
SPDR SERIES TRUST BRCLYS LG TRS	TLO	-0.6340	-0.9723
VANGUARD SCOTTSDALE FDS LONG-TERM GOV	VGLT	-0.5904	-0.9722
DIREXION SHS ETF TR 7 10YR TRES BU	TYD	-0.5767	-0.9721
ISHARES TR BARCLYS 7-10 YR	IEF	-0.5716	-0.9714
PIMCO ETF TR 7-15 YR US TRS	TENZ	-0.5733	-0.9713
ISHARES TR BARCLYS 20+ YR	TLT	-0.5860	-0.9681
PROSHARES TR ULTRA 20YR TRE	UBT	-0.6014	-0.9675
DIREXION SHS ETF TR 20YR TRES BULL	TMF	-0.5914	-0.9653
SCHWAB STRATEGIC TR INTRM TRM TRES	SCHR	-0.5390	-0.9626
VANGUARD BD INDEX FD INC LONG TERM BOND	BLV	-0.4892	-0.9619
VANGUARD SCOTTSDALE FDS INT-TERM GOV	VGIT	-0.5340	-0.9619



# Correlation of ETFs to VIX Volatility Index: Returns and Values

The following four tables list the ETFs with the highest and lowest correlations with the VIX volatility index. The tables include correlations of returns, which illustrate short-term information, as well as correlations of the index values which capture longer term trends.

The ETFs with the lowest correlation of returns seem to be large cap indexes, with some of the corresponding inverse funds appearing in the Top 15 list of highest correlation of returns as well. Major indexes also appear regularly among those with the highest and lowest correlation of values.

Correlations of ETFs to the VIX Volatility Index			
Top 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
PROSHARES TR II VIX SHTTRM FUT	VIXY	0.9048	0.8627
BARCLAYS BK PLC IPTH S&P VIX NE	VXX	0.9041	0.8622
BARCLAYS BK PLC IPTH S&P MT ET	VXZ	0.8699	0.7978
PROSHARES TR II VIX MDTM FUTR	VIXM	0.8617	0.7951
DIREXION SHS ETF TR DLY LRG CAP BE	BGZ	0.8556	0.6020
PROSHARES TR ULT SHR S&P500	SPXU	0.8552	0.5879
PROSHARES TR PSHS ULSHT SP50	SDS	0.8546	0.6904
RYDEX ETF TRUST INV S&P500 2X	RSW	0.8539	0.6908
PROSHARES TR PSHS SHRT S&P5	SH	0.8536	0.7808
PROSHARES TR PSHS ULTASH DW	DXD	0.8462	0.5602
DIREXION SHS ETF TR DLY MC3X SHS N	MWN	0.8451	0.6767
PROSHARES TR ULTRA SH DOW30	SDOW	0.8446	0.4791
PROSHARES TR PSHS SHORT DOW	DOG	0.8432	0.6380
PROSHARES TR PSHS SH MSCI E	EFZ	0.8406	0.8845
DIREXION SHS ETF TR DLY DEV MKT BE	DPK	0.8392	0.8132

Correlations of ETFs to the VIX Volatility Index			
Bottom 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
VANGUARD INTL EQUITY INDEX F TT WRLD ST ETF	VT	-0.8577	-0.8740
SCHWAB STRATEGIC TR US LRG CAP ETF	SCHX	-0.8568	-0.9423
RYDEX ETF TRUST S&P 500 2X ETF	RSU	-0.8563	-0.9472
ISHARES TR RUSSELL 3000	IWV	-0.8557	-0.9485
PROSHARES TR PSHS ULT S&P 50	SSO	-0.8553	-0.9468
VANGUARD INDEX FDS LARGE CAP ETF	VV	-0.8553	-0.9413
SCHWAB STRATEGIC TR US BRD MKT ETF	SCHB	-0.8551	-0.9456
PROSHARES TR ULTRPRO S&P500	UPRO	-0.8551	-0.9196
SPDR S&P 500 ETF TR TR UNIT	SPY	-0.8548	-0.9385
ISHARES TR S&P 500 INDEX	IVV	-0.8546	-0.9385
VANGUARD INDEX FDS TOTAL STK MKT	VTI	-0.8544	-0.9459
POWERSHARES ETF TRUST DYNM LRG CP GR	PWB	-0.8544	-0.9183
ISHARES TR DJ US INDEX FD	IYY	-0.8539	-0.9456
DIREXION SHS ETF TR DLY LRG CAP BUL	BGU	-0.8536	-0.9065
WISDOMTREE TRUST LARGE CAP DIVID	DLN	-0.8535	-0.7709

Correlations of ETFs to the VIX Volatility Index			
Top 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
ADVISORSHARES TR ACTIV BEAR ETF	HDGE	0.7833	0.9183
PROSHARES TR PSHS SHTFINL E	SEF	0.7983	0.9115
PROSHARES TR SHT BASIC MAT	SBM	0.7353	0.8947
PROSHARES TR PSHS SH MSCI E	EFZ	0.8406	0.8845
PROSHARES TR PSHS ULT SH MS	EFU	0.8381	0.8840
PROSHARES TR PSHS SH MDCAP4	MYX	0.8272	0.8728
PROSHARES TR ULSH MSCI BRZL	BZQ	0.7410	0.8644
PROSHARES TR II VIX SHTTRM FUT	VIXY	0.9048	0.8627
BARCLAYS BK PLC IPTH S&P VIX NE	VXX	0.9041	0.8622
PROSHARES TR PSHS SH MSCI E	EUM	0.7830	0.8586
PROSHARES TR FTSE CHINA 25	YXI	0.6675	0.8538
PROSHARES TR PSHS ULTSH FI	SKF	0.8001	0.8462
PROSHARES TR BASIC MAT NEW	SMN	0.8075	0.8446
PROSHARES TR PSHS SHTRUSS20	RWM	0.8158	0.8407
PROSHARES TR SHT MSCI NEW	EEV	0.7833	0.8391

Correlations of ETFs to the VIX Volatility Index			
Bottom 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
ISHARES TR LARGE VAL INDX	JKF	-0.8338	-0.9647
VANGUARD INDEX FDS VALUE ETF	VTW	-0.8460	-0.9638
ISHARES TR RUSL 3000 VALU	IWW	-0.8412	-0.9633
ISHARES TR RUSSELL1000VAL	IWD	-0.8449	-0.9630
VANGUARD WORLD FD MEGA VALUE 300	MGV	-0.8375	-0.9628
ISHARES TR RUS200 VAL IDX	IWX	-0.8333	-0.9611
VANGUARD SCOTTS DALE FDS VNG RUS1000VAL	VONV	-0.7906	-0.9604
POWERSHARES ETF TRUST FTSE RAFI 1000	PRF	-0.8479	-0.9599
ISHARES TR DJ US INDUSTRIAL	IYJ	-0.8405	-0.9598
VANGUARD INDEX FDS MCAP VL IDXPVP	VOE	-0.8433	-0.9596
VANGUARD WORLD FDS INDUSTRIAL ETF	VIS	-0.8378	-0.9595
SELECT SECTOR SPDR TR SBI INT-INDS	XLI	-0.8355	-0.9594
ISHARES TR SMLL VAL INDX	JKL	-0.8165	-0.9584
RYDEX ETF TRUST INDLS ETF	RGI	-0.7467	-0.9574
SCHWAB STRATEGIC TR US LCAP VA ETF	SCHV	-0.8406	-0.9565



# Correlation of ETFs to DAX Volatility Index: Returns and Values

The following four tables list the ETFs with the highest and lowest correlations with the DAX volatility index. The tables include correlations of returns, which illustrate short-term information, as well as correlations of the index values which capture longer term trends.

Although there are shared patterns between these ETFs and those on the previous tables related to the VIX, the differences between these lists are significant.

Correlations of ETFs to the DAX Volatility Index			
Top 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
PROSHARES TR PSHS ULT SH MS	EFU	0.6654	0.8666
DIREXION SHS ETF TR DLY DEV MKT BE	DPK	0.6649	0.7423
PROSHARES TR PSHS SH MSCI E	EFZ	0.6634	0.9150
PROSHARES TR II VIX SHTRM FUT	VIXY	0.6592	0.8870
BARCLAYS BK PLC IPTH S&P VIX NE	VXX	0.6567	0.8903
PROSHARES TR PSHS ULTSHT IN	SIJ	0.6517	0.6860
PROSHARES TR PSHS ULSHT MC	SDK	0.6461	0.6027
PROSHARES TR ULSH MSCI EURP	EPV	0.6455	0.7141
PROSHARES TR ULTRA SH DOW30	SDOW	0.6451	0.2966
PROSHARES TR PSHS SHORT DOW	DOG	0.6444	0.4800
PROSHARES TR II VIX MDTRM FUTR	VIXM	0.6429	0.8463
PROSHARES TR PSHS ULTASH DW	DXD	0.6426	0.3885
PROSHARES TR ULT SHR S&P500	SPXU	0.6418	0.4150
PROSHARES TR PSHS CONSUMR G	SZK	0.6416	0.0878
PROSHARES TR PSHS SHRT S&P5	SH	0.6392	0.6510

Correlations of ETFs to the DAX Volatility Index			
Bottom 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
VANGUARD TOTAL INTNL STOCK E INTL STOCK ETF	VXUS	-0.7501	-0.8152
THOMSON REUTERS JEFFERIES GR GLBL COMDTY	CRBQ	-0.7179	-0.8405
VANGUARD ADMIRAL FDS INC 500 VAL IDX FD	VOOV	-0.7080	-0.9442
ISHARES TR NYSE COMP INDX	NYC	-0.7062	-0.9568
POWERSHARES ETF TRUST FND PUR LRGR	PXLC	-0.7019	-0.8734
POWERSHARES GLOBAL ETF TRUST DEV INTL OPP	PFA	-0.7004	-0.8166
CLAYMORE EXCHANGE TRD FD TR GUGG SEC ROT E	XRO	-0.6989	-0.9227
FIRST TR ISE GLOBAL ENGR & C	FLM	-0.6977	-0.8905
RYDEX ETF TRUST INDLS ETF	RGI	-0.6946	-0.9364
RUSSELL EXCHANGE TRADED FDS EQUITY ETF	ONEF	-0.6942	-0.9365
WISDOMTREE TRUST GLB EQTY INC F	DEW	-0.6925	-0.8936
SPDR SERIES TRUST GLB DOW ETF	DGT	-0.6893	-0.8989
SPDR INDEX SHS FDS STOXX EUR 50 E	FEU	-0.6892	-0.8966
SCHWAB STRATEGIC TR INTL EQTY ETF	SCHF	-0.6879	-0.8768
ISHARES TR S&P GL INDUSTR	EXI	-0.6866	-0.9520

Correlations of ETFs to the DAX Volatility Index			
Top 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
PROSHARES TR PSHS SH MSCI E	EFZ	0.6634	0.9150
BARCLAYS BK PLC IPTH S&P VIX NE	VXX	0.6567	0.8903
PROSHARES TR II VIX SHTRM FUT	VIXY	0.6592	0.8870
PROSHARES TR SHT BASIC MAT	SBM	0.6074	0.8718
PROSHARES TR PSHS SHTFINL E	SEF	0.5814	0.8701
PROSHARES TR PSHS ULT SH MS	EFU	0.6654	0.8666
PROSHARES TR PSHS SH MSCI E	EUM	0.6311	0.8657
ADVISORSHARES TR ACTIV BEAR ETF	HDGE	0.6070	0.8607
PROSHARES TR ULSH MSCI BRZL	BZQ	0.6035	0.8513
BARCLAYS BK PLC IPTH S&P MT ET	VXZ	0.6287	0.8483
PROSHARES TR II VIX MDTRM FUTR	VIXM	0.6429	0.8463
PROSHARES TR FTSE CHINA 25	YXI	0.5838	0.8448
PROSHARES TR SHT MSCI NEW	EEV	0.6322	0.8031
PROSHARES TR PSHS SH MDCAP4	MYI	0.6158	0.7728
PROSHARES TR ULTSHT CHINA 2	FXP	0.5849	0.7723

Correlations of ETFs to the DAX Volatility Index			
Bottom 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
FIRST TR DJS MICROCAP INDEX COM SHS ANNUAL	FDM	-0.5614	-0.9616
VANGUARD SCOTSDALE FDS VNG RUS2000VAL	VTWV	-0.6089	-0.9610
ISHARES TR RUSL 2000 VALU	IWN	-0.5904	-0.9595
PROSHARES TR ULT KBW REGBNK	KRU	-0.5373	-0.9575
ISHARES TR NYSE COMP INDX	NYC	-0.7062	-0.9568
PROSHARES TR PSHS ULTRA IND	UXI	-0.6566	-0.9566
ISHARES TR RSSL MCRCP IDX	IWC	-0.5690	-0.9559
PROSHARES TR PSHS ULT1000 V	UVG	-0.6339	-0.9553
POWERSHARES ETF TRUST ZACKS MC PRTFL	PZI	-0.5985	-0.9534
ISHARES TR LARGE VAL INDX	JKF	-0.6406	-0.9532
ISHARES TR S&P GLB100INDX	IOO	-0.6699	-0.9530
POWERSHARES ETF TRUST FINL SECT PORT	PFI	-0.6388	-0.9530
POWERSHARES ETF TRUST FTSE US1500 SM	PRFZ	-0.6044	-0.9528
POWERSHARES ETF TRUST DYN INS PTF	PIC	-0.5489	-0.9528
POWERSHARES ETF TRUST INDL SECT PORT	PRN	-0.6472	-0.9526

# Correlation of ETFs to CPI Private Motor Fuel Index: Returns and Values

The following four tables list the ETFs with the highest and lowest correlations with the CPI of Private Motor Fuel. The tables include correlations of returns, which illustrate short-term information, as well as correlations of the index values which capture longer term trends.

The highest return correlations are, not surprisingly, topped by a crude oil ETF, but also include agricultural commodity and currencies, including the Russian Ruble and Swedish Krona. The highest value correlation, however, contain primarily U.S. Treasury and Gold funds. The ETFs with the lowest correlation of returns and values contain an array of different types of funds.

Correlations of ETFs to the CPI - Private Motor Fuel			
Top 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
ULTRASHORT DJ-AIG CRUDEOIL NAV	SCO	0.4541	0.6049
TEUCRIUM COMMODITY TR CORN FD SHS	CORN	0.2190	0.1703
COLUMBIA ETF TR INTERMED MUN	GMMB	0.2091	0.4907
COLUMBIA ETF TR COLUMBIA CON L	GVT	0.1707	-0.5740
UNITED STS COMMODITY INDEX F COMM IDX FND	USCI	0.1429	-0.5746
POWERSHS DB MULTI SECT COMM DB AGRICULT FD	DBA	0.1138	-0.4110
CURRENCYSHARES RUSSIAN RUBLE SHS	FXRU	0.1137	-0.3288
PROSHARES TR RAFI LG SHT FD	RALS	0.1119	-0.6275
SPDR SERIES TRUST SHRT INTL ETF	BWZ	0.1070	0.1421
GREENHAVEN CONT CMDTY INDEX UNIT BEN INT	GCC	0.0932	-0.3627
ISHARES TR S&P CITINT TBD	IGOV	0.0859	0.3206
CURRENCYSHARES SWEDISH KRONA SWEDISH KRONA	FXS	0.0845	-0.2269
MARKET VECTORS ETF TR MKTVEC LMUNETF	MLN	0.0809	0.5167
ADVISORSHARES TR CAMBRIA GL TAC	GTAA	0.0809	-0.4402
PROSHARES TR PSHS SEMICONDU	SSG	0.0803	0.1946

Correlations of ETFs to the CPI - Private Motor Fuel			
Bottom 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
SPDR SERIES TRUST NUVN BR NY MUN	INY	-0.1714	0.5267
VANGUARD SCOTTSDALE FDS INT-TERM GOV	VGIT	-0.1132	0.5933
ISHARES TR S&P SH NTL AMTF	SUB	-0.0902	0.5435
ISHARES TR 2015 S&P AMTFR	MUAD	-0.0897	0.5117
SPDR SERIES TRUST BRCLYS 1-3MT E	BIL	-0.0858	-0.0858
MARKET VECTORS ETF TR GULF STS ETF	MES	-0.0836	-0.2662
ISHARES TR BARCLYS INTER C	CIU	-0.0831	0.5649
SPDR SERIES TRUST NUVN BR SHT MU	SHM	-0.0826	0.6154
SPDR SERIES TRUST INTR TRM CORP	ITR	-0.0807	0.5013
PROSHARES TR PSHS ULT SEMIC	USD	-0.0760	-0.5504
VANGUARD SCOTTSDALE FDS MORTG-BACK SEC	VMBS	-0.0752	0.5982
MARKET VECTORS ETF TR EGYPT INDX ETF	EGPT	-0.0745	-0.6234
ISHARES TR BRC 0-5 YR TIP	STIP	-0.0744	0.6392
PIMCO ETF TR BROAD US TIPS	TIPZ	-0.0730	0.5640
SPDR SERIES TRUST BRCLYS INTER E	ITE	-0.0716	0.6097

Correlations of ETFs to the CPI - Private Motor Fuel			
Top 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
VANGUARD SCOTTSDALE FDS SHTRM GVT BD E	VGSH	0.0213	0.6931
ISHARES TR BARCLYS 1-3 YR	SHY	-0.0598	0.6907
ISHARES TR BARCLYS SH TREM	SHV	-0.0060	0.6830
SCHWAB STRATEGIC TR SHT TM US TRES	SCHO	-0.0154	0.6793
PIMCO ETF TR 1-3YR USTREIDX	TUZ	0.0274	0.6781
ISHARES TR BRC 0-5 YR TIP	STIP	-0.0744	0.6392
SPDR SERIES TRUST CAP MORTG ETF	MBG	-0.0368	0.6378
MARKET VECTORS ETF TR MKTVEC SMUNETF	SMB	-0.0429	0.6287
SPDR GOLD TRUST GOLD SHS	GLD	0.0536	0.6266
ETFS GOLD TR SHS	SGOL	0.0554	0.6266
VANGUARD BD INDEX FD INC SHORT TRM BOND	BSV	-0.0650	0.6266
ISHARES GOLD TRUST ISHARES	IAU	0.0542	0.6266
POWERSHS DB MULTI SECT COMM DB GOLD FUND	DGL	0.0574	0.6263
PIMCO ETF TR SHTRM MUN BOND	SMMU	0.0208	0.6206
SPDR SERIES TRUST BRCLYS AGG ETF	LAG	-0.0049	0.6190

Correlations of ETFs to the CPI - Private Motor Fuel			
Bottom 15 Values			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
GLOBAL X FDS GLB X URANIUM	URA	-0.0164	-0.7756
PROSHARES TR II SHRT SILV NEW	ZSL	-0.0164	-0.7311
MARKET VECTORS ETF TR BNK & BROKERAG	RKH	-0.0115	-0.7305
SPDR SERIES TRUST S&P BK ETF	KBE	-0.0223	-0.6997
ISHARES TR DJ US FINL SVC	IYG	-0.0052	-0.6979
ISHARES TR S&P NA MULTIMD	IGN	-0.0179	-0.6976
REVENUESHARES ETF TR S&P500 FINL FD	RWW	0.0318	-0.6974
ISHARES TR DJ REGIONAL BK	IAT	-0.0208	-0.6947
SELECT SECTOR SPDR TR SBI INT-FINL	XLFI	0.0023	-0.6921
WISDOMTREE TRUST JP TOTAL DIVID	DXJ	0.0046	-0.6914
SPDR SERIES TRUST S&P CAP MKTS	KCE	-0.0056	-0.6858
ISHARES TR MSCI PERU CAP	EPU	0.0407	-0.6816
MARKET VECTORS ETF TR URAN NUCLR ENR	NLR	-0.0112	-0.6774
ISHARES TR DJ US FINL SEC	IYF	0.0025	-0.6741
VANGUARD WORLD FDS FINANCIALS ETF	VFH	0.0045	-0.6738

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