

Sabrient Systems, LLC

# TheMacroReport

Focus: China

April 23, 2012

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Co-published by Sabrient Systems, LLC and MacroRisk Analytics

# TheMacroReport

## Focus: China

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### Welcome to The MacroReport

What's inside:

- The recent announcement by China to widen the yuan's trading band can be interpreted in enough different ways to keep a roomful of economists debating for days. *Is this act of doubling the band width against the dollar intended as an economic herald of China's imminent change of leadership?*
- The slowdown in China's growth seemed to fall somewhere into the "Goldilocks" encampment, as it didn't quite meet the criteria of either the Hard Landing or Soft Landing schools. *Is the drop in China's GDP from 8.9% to 8.1% an intended consequence of a tightly controlled economy or the beginning of a downtrend with a global kick?*
- Back in February, the IMF offered up a variety of possible directions for China's economy, including what was regarded at the time as a somewhat pessimistic take on the impact of a deteriorating European economy. *With Spain's bond yields returning to levels dubbed "unsustainable," will China suffer from the unleashing of the PIIGS?*
- With the Chinese government's recent threat to block a \$12 billion order of Airbus jets in retaliation for the EU's proposed carbon emission fees, there seems to be no shortage of trade issues simmering between the world's largest economies. *Will Wall Street be scalded if matters heat up and come to a boil?*
- The MacroReport will consider three scenarios driven by a combination of these circumstances and events, and conclude with a series of economic factor-based ETF portfolios and QuickResponse™ stock choices geared to each scenario.

**Please Note:** The MacroReport introduces a valuable interactive component that now is available to our subscribers. [MacroReport InterActive](#) provides a "quick response" to major economic shifts on a daily basis and gives access to the most current revisions and adjustments made to our optimized ETF and stock portfolios.

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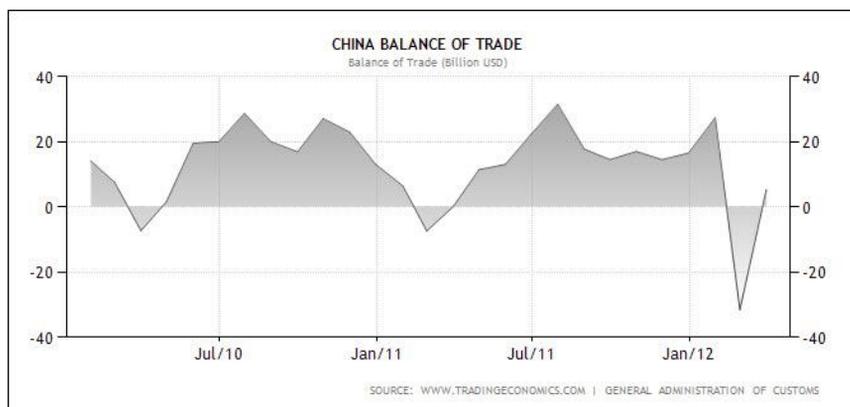
### Yuan Strikes Up an Expanded Band

For the first time in five years, Beijing has widened the daily trading band of the yuan, doubling the range that it had previously traded against the dollar. The shift, based on a daily rate set by China's central bank, increased the band from 0.5% to 1.0%.

For a government that holds on extremely tight to its currency reins, this is a significant increase. It might be viewed as a solid gesture by China to allow the demands of the market to set a fair value on the currency. It can also be seen as a move in the direction that China's new incoming leadership will assume, maintaining the increasingly open-market momentum that the current leader Premier Wen has been quietly building.

The move also makes sense in view of the current and projected slowdown of the world's second largest economy. With a shrinking account surplus hitting 2.7% in 2011 primarily due to a decrease in exports, the resulting weakened currency has made this an opportune time for Beijing to claim it is accommodating U.S. demands to allow the yuan to appreciate, when in reality it is actually addressing its own internal concerns.

Timing is everything, however, certainly in comedy and definitely in regard to the markets. So a question to consider is, "Why now?"



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The currency move may have been timed to coincide with the recent G24 meeting in Washington. It is not uncommon for Beijing to attempt to gain leverage in advance of any international meeting, and the currency move—one seen in a positive light by both the International Monetary Fund (IMF) and the U.S. government—could serve to achieve that aim.

The timing of the move might also be seen as an effort to remove attention from a high-level scandal that offers up all the intrigue and drama of, well, an intriguing Hollywood film or a typical Washington scandal.

When a top China politico, Bo Xilai, was unceremoniously yanked from his lofty position over allegations that his wife was involved in a murder, expectations of a major power struggle surfaced, evoking concerns that the financial reforms now under way in China might be waylaid in advance of the once-in-a-decade leadership transition that is scheduled to take place later in the year.

However, the announcement of the widening of the yuan's trading band has allayed those fears to a large extent, and has indicated to China-watchers that the progressive currency moves are likely to continue apace, which is something akin to glacial creep.

**The Bottom Line:** Neither Wall Street nor the Asian stock markets illustrated much of a reaction to the big announcement by the People's Bank of China. However, as a harbinger of things to come, the widening of the yuan band may eventually prove to be a major factor in decompressing the Chinese economy at a rate that contributes to a softer landing than otherwise might be likely to occur.

Still, it remains to be seen if the yuan is actually allowed to trade within the full range of the widened band, or if Beijing's continued tight capital controls will effectively keep it as contained as it has been over the last several years.

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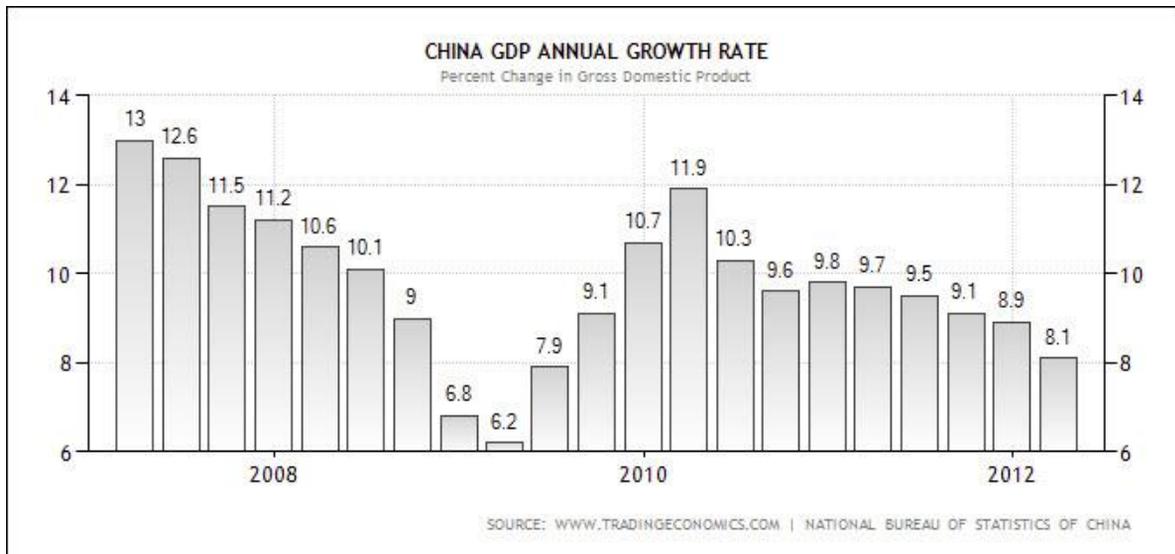
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### Cool Down But No Melt Down

China's National Bureau of Statistics reported mid-April that the country's first quarter GDP expanded at the rate of only 8.1% year-on-year, compared to the previous quarter's 8.9%, was just enough to send the equity market lower in China and the futures market down in the U.S. Although the Asian markets recovered for the day better than Wall Street, it is clear that sentiment towards China leans towards the side of concern.

This begs the question: Exactly how closely should investors be monitoring this economic behemoth?



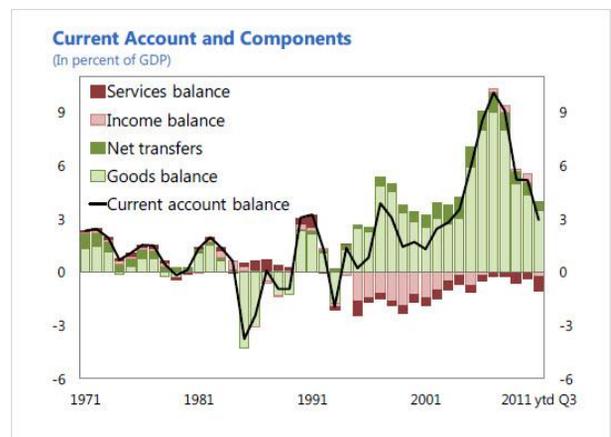
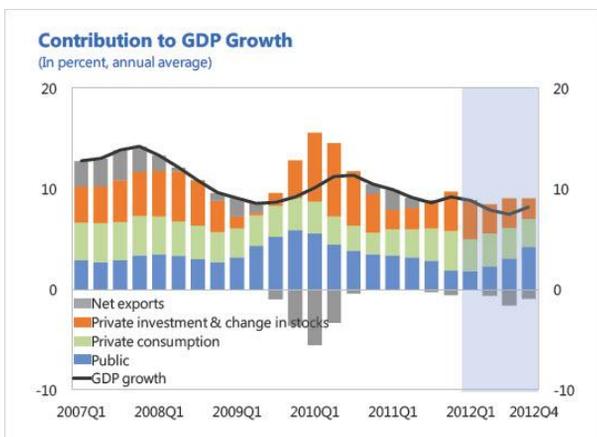
According to an IMF report on China published earlier in the year, while the current regime in Beijing is doing a lot of the right things to ward off a hard landing, which might be defined as a drop to sub-6% GDP-growth level, multiple dangers remain.

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To begin with, China's trade surplus, a staple in its breakneck expansion since the early 1980s, has started to shrink, continuing a three-year downtrend. Taken as a share of GDP, 2011 saw a decrease to 2%, off 1.1% from 2010. Another key indicator of the need for China to shift its economic focus may be seen in its dwindling export levels. While exports increased by 7.6% in Q1, that number reflected the lowest level of growth since the global economy swooned back in 2008-2009.



Source: IMF

The shift from a China economy that has been fattened up on a diet of investment-led growth and an export-heavy trade surplus to an economy geared toward greater domestic consumption will be a difficult transition to make without a certain level of disturbance. Beijing will likely continue to explore ways to accomplish this using its own brand of quantitative easing, though the fear of inflation looms like a shadow cast from the Great Wall.

Foreign investment declined in March, a continuation of a five-month trend. The decline is being attributed to the impact of the ongoing disaster that is the European Union's sovereign debt crisis, along with the general malaise of the global economy.

One of the key remedies put forward by the IMF report was the need for China to shift towards greater domestic consumption. This is a huge area of growth, and if an

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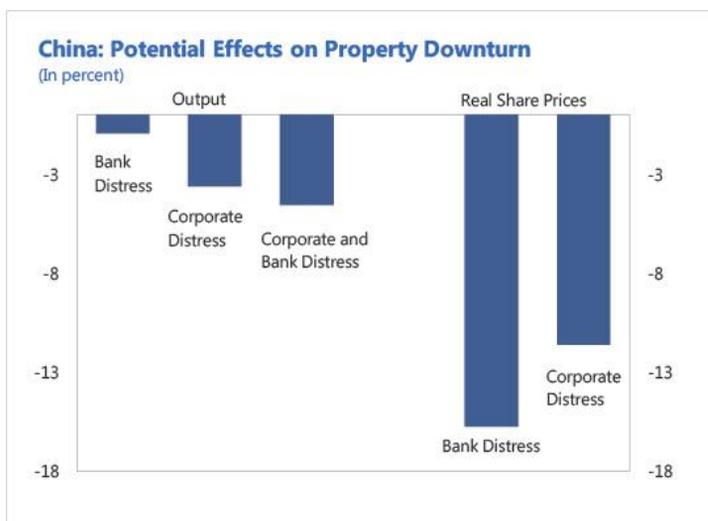
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effective transition can be made in this direction, it well might be the solution to China's current economic imbalance. For example, while U.S. domestic consumption as a proportion of GDP was 88% in 2010, China's population contributed a relatively anemic 35%.

**The Bottom Line:** With a population base on track to hit 1.5 billion in this decade, the potential of success resulting from a shift in this direction is apparent. The key to this strategy's success will lie with Beijing, which, after years of inducting its population into the cult of savings, must reverse the psychology and convince its newly prosperous citizens to become ardent consumers.

### Deflating a Real Estate Bubble?

One component of China's economy with an extremely high potential to inflict serious damage on its economy is the possibility of a real estate bubble. Initially fueled by a combination of minimal property taxes and the fact that Chinese investors simply had few options other than real estate if they wanted a return on their money, the market has now cooled down. The cooling effect is courtesy of government-directed efforts as opposed to free-market actions.



Source: IMF

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China's government is hoping to minimize any future fallout that may occur due to a sharp downturn in the market, whether as a result of a domino-effect originating from a Eurozone-based event or rising inflation. It is closely monitoring the inflow of overseas funds in an effort to limit speculative investment in its domestic real estate market, as well as imposing limits on the ability of families to purchase second and third homes. As well, rising interest rates should help serve as a deterrent to investors who have been able to capitalize on cheap mortgage-loan rates.

**The Bottom Line:** As evidenced by the sub-prime mortgage debacle of 2008, the ability of a housing-related bubble to inflict heavy carnage on an economy, both domestic and global, is apparent. How China's real estate market is handled by its leaders over the course of the next six months will go a long way to establishing whether China ultimately lands hard or lands soft.

### Trade Wars Found Lurking Just Below Horizon

Beijing's recent threat to halt the delivery of about \$14 billion in Airbus jets is chillingly indicative of how China is not hesitant to wield its massive economic clout.

In response to the European Union's efforts to impose carbon emission fees on commercial jets that make use of its airspace, China's government demonstrated its dissatisfaction by threatening to pull the plug on a massive order it had placed with Europe's largest manufacturer of aircraft.

Though the U.S. happens to line up with China in this particular battle, centered upon the EU's valiant attempt to control carbon emissions over the skies of Europe, there are a number of other trade-related issues that pits the U.S. in direct opposition to China.

Although the United States and Europe are China's top two trading partners, combining for close to 50% of that country's total exports, Beijing has routinely established that it tends not to be the first to blink.

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Granted, China's recent move to widen the yuan's trading band apparently addressed one of the main issues that have continually surfaced during numerous U.S.-China trade negotiations. However, in any event, it is certain that the move was initiated first and foremost to address China's domestic concerns, not those of one of its foremost trading partners.

Still, in terms of trade relations, there are two key issues that have the potential to disrupt the current dynamic between the planet's two remaining superpowers.

First, there is the virtual monopoly China has on rare earth metals. They have managed to control 95% of the market, and since the metals are used in a number of high tech applications, including a multitude of weapons, it's not much of a stretch to see how the U.S. might find itself at a disadvantage in future trade negotiations.

Washington's fears are not unfounded, as evidenced by China's recent announcement that it would reduce exports of the metals by 35%. This is on top of earlier reductions by Beijing in both 2009 and 2010. The U.S. concern regarding Beijing's monopoly was voiced just last month, when Washington announced it was enlisting the World Trade Organization in its effort to reverse China's harsh export restrictions on rare earth metals.

Second, there is the matter of U.S. politics. The presumptive Republican nominee for president, Mitt Romney, has made a campaign promise that illustrates the potential that partisan politics can play in this arena. He has promised that he'd declare China a currency manipulator on "day one" of his presidency, should that occur. That attitude, together with the make-up of the next U.S. Congress, could relocate a number of trade-related issues closer to the front burner than they are at the moment.

**The Bottom Line:** Beijing might flex its biceps in response to U.S. posturing, and the subsequent round of maneuvers could escalate into economic trouble for all involved.

### Spain's Tottering Economy May Land Hard on China

As stated in February's IMF report and reiterated in a recent Global Financial Stability Report update, the risks to the global economy continue to rise sharply. A chief culprit contributing to that negative sentiment is the Eurozone, no thanks to its tenacious sovereign debt and banking crisis.

The European Central Bank's (ECB) implementation of LTRO-1 and LTRO-2 served as a surprisingly effective balm that helped heal the substantial level of fear that had permeated the global equity markets throughout the majority of the second half of 2011. That relief is fading, as can be seen by the return of Spain's 10-year bond yields to the 6% level. Should the yields hit 7% and remain there for a sustained duration, Spain will be forced into a default situation as debt hits unsustainable levels.

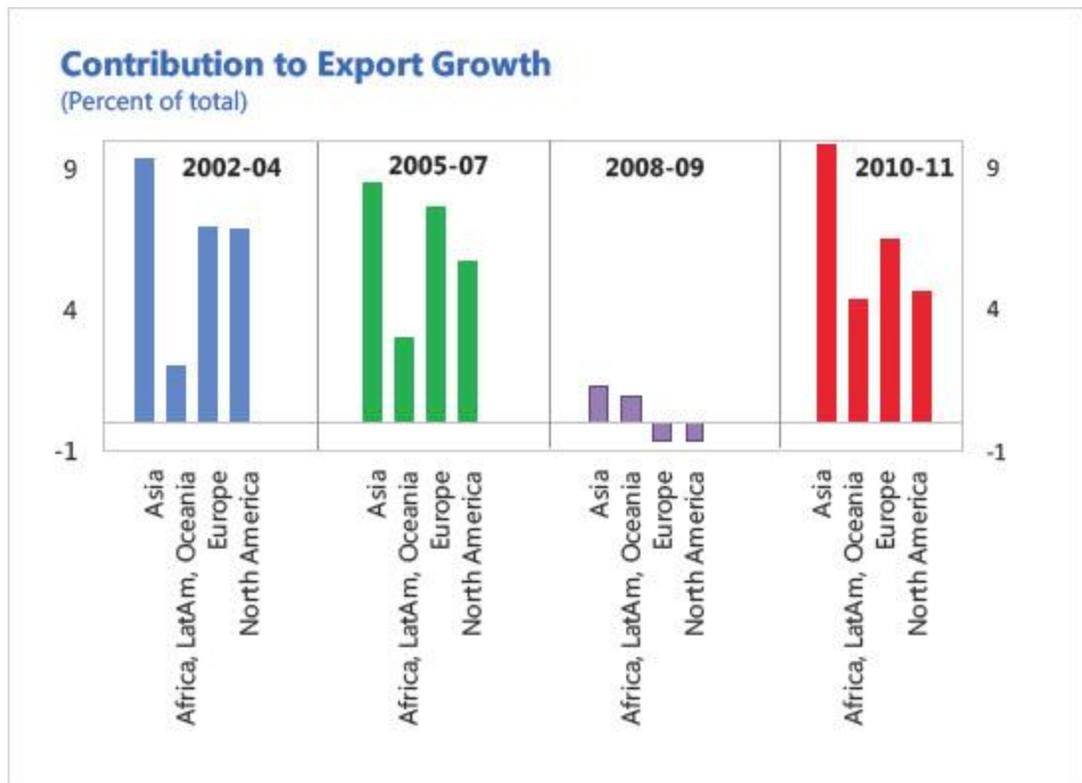
True, the IMF has just secured pledges of \$430 billion, bringing to nearly a trillion dollars that is, hypothetically, available to buffer defaults from the key PIIGS, Spain and Italy. The Eurozone's underlying problems remain and are akin to the adage about yachts: "A hole in the water one throws money into." The systemic problems of the European Union are unlikely to be solved with bailouts.

The current round of elections being held in France, and soon Greece, wouldn't seem to affect China directly. However, if leadership tacks left, the austerity measures demanded by investors are likely not to get enacted. This could easily lead to defaults by multiple Eurozone countries, and the "mild" recession predicted for the region could ramp up to something more severe. The resultant lack of import orders to China, which is close to being the EU's largest trading partner, would be reflected relatively quickly in China's economy.

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**The Bottom Line:** According to one dark scenario painted by the IMF, China would be impacted by a EU recession to a high degree, cutting its growth by half and impacting it to the tune of 4%. Should this occur, there would be no question China would experience a hard landing, along with the rest of the global economy.

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### The Ultimate Bottom Line

While the concept of Hard Landing versus Soft Landing is a catchy metaphor, it offers a black-and-white picture of a landscape that is more accurately painted in shades of grey.

In the case of China's economy, there are indications that equilibrium is being achieved, as may be evidenced by recent currency moves, as well as by the apparent recognition of its leaders for the necessity to shift from an export-orientation model towards a domestic consumption-based model. Still, unwieldy factors such as rising inflation, real estate bubbles, and volatile global markets are difficult to manage and even harder to predict. Ultimately, there remains a high level of volatility that is important for investors to factor into their portfolios.

Currently, the Soft Landing scenario seems to be the one that is unfolding. But to continue the metaphor, the landing is an extended process rather than a one-off event, and while the landing gear may be down, the plane is still in the air and far above the runway.

Should the European sovereign debt crisis deteriorate to a level beyond containment and into contagion, there seems to be little question that it would have a sharp impact on China's economy. Could it be sufficient to pummel growth down to a sub-6% level? Probably. That is the terrain where the Hard Landing is to be found.

As for Trade Wars, that scenario contains elements that lend credence to innumerable Black Swan possibilities. Like wars of any stripe, a trade war could erupt despite the fact that a thousand common-sense reasons remain for it not to be entered into.

**Note:** The charts and graphs on the next several pages provide an in-depth analysis of the three scenarios and offer Optimized ETF Portfolios for each scenario and QuickResponse™ stock portfolios based on single macroeconomic factors.

## Focus: China—Three Possible Economic Scenarios

A strong case may be made that China is currently in the middle of a “Soft Landing.” However, there are more than enough factors in play, both within and without the country, which could conspire to amp up the categorization to a “Hard Landing.”

A less robust case could be argued that China is already on the precipice of “Trade Wars,” as certain elements are already in place. Whether or not circumstances shift conditions further into that direction depends on a number of political and economic concerns, perhaps equally weighted between the U.S. and the EU.

The assets that were selected as proxies to best reflect trends within the multiple scenarios include copper, as a proxy for manufacturing sector in China; the Australian dollar, to reflect China’s infrastructure; and price of grains, which has a strong impact on both short and longer term GDP.

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

### The Scenario Box: Soft Landing, Hard Landing, and Trade Wars

The Scenario Box: Soft Landing, Hard Landing, and Trade Wars														
SCENARIO	BOND YIELDS	EQUITY MARKETS		COMMODITIES			CURRENCIES			INFLATION AND MONEY			REAL ESTATE	GDP
Scenario	10-Year Treasury	S&P 500	VIX - Market Volatility	Price of Grains	Price of Copper	Price of Oil	Australian Dollar	Euro	US Dollar	PMI	CPI	Gold Prices	REIT Index	GDP
Soft Landing	Falls	Rises	No Change	Falls	No Change	No Change	Rises	Falls	No Change	Rises	Rises	Rises	No Change	No Change
Hard Landing	No Change	Falls	Rises Sharply	No Change	Falls Sharply	Falls	Falls Sharply	Falls Sharply	Rises	Falls	No Change	No Change	Falls	Falls
Trade Wars	Rises Sharply	Falls	Rises	Falls	No Change	Falls	Falls	Falls	Rises	Falls	Rises	Rises	Falls	Falls

Source: MacroRisk Analytics

These changes were then analyzed in terms of their impact on a set of 18 MacroRisk Factors, developed by [MacroRisk Analytics](https://www.macrorisk.com), and from there, on the Indexes and ETFs that are being analyzed.

Emerging trends within each scenario may be tracked by using either commodity spot prices or representative ETFs that consist of stocks or indexes that best reflect the respective asset, such as USO, GLD, and VXX.

# China Scenarios at a Glance

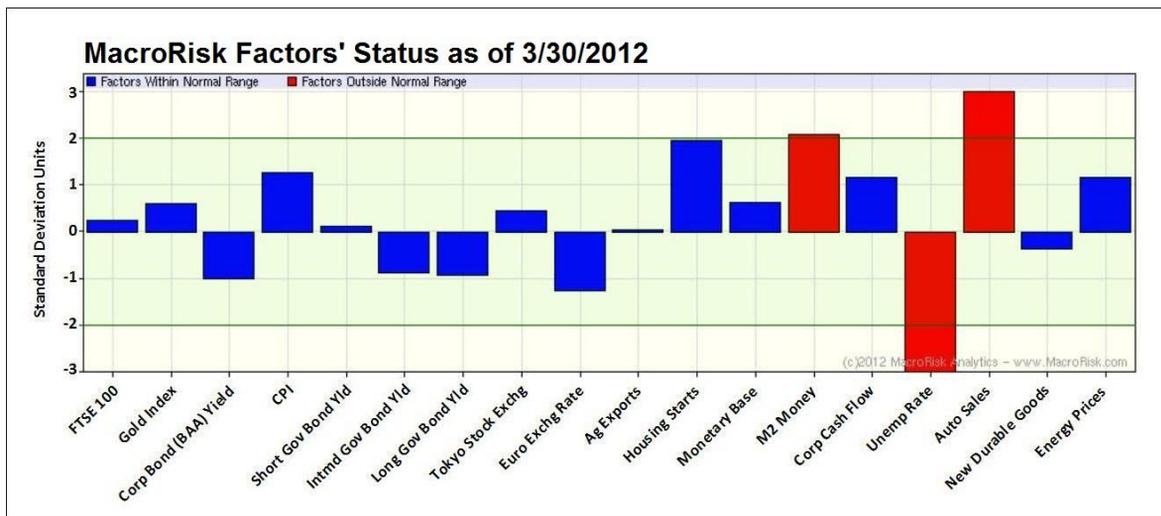
Economic scenarios, such as the Soft Landing, Hard Landing, and Trade Wars scenarios, can be represented in terms of factors. For most stocks, funds, and indexes, the 18 MacroRisk Factors, taken together, explain over 95% of the movement in price over time.

Each of the 18 MacroRisk Factors is represented by 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 drops below 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 top 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.

This graph provides a snapshot of the current economy.

## Current Status of the Economy



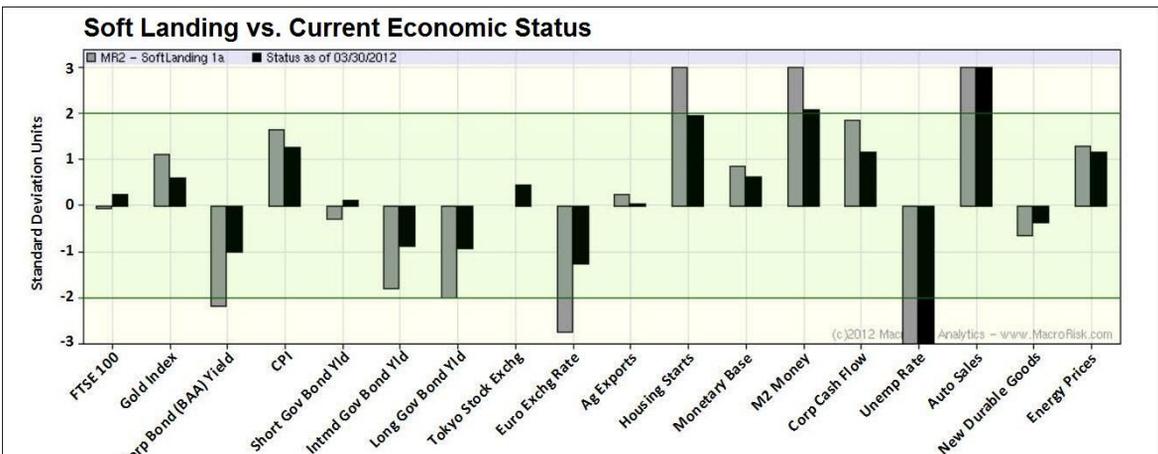
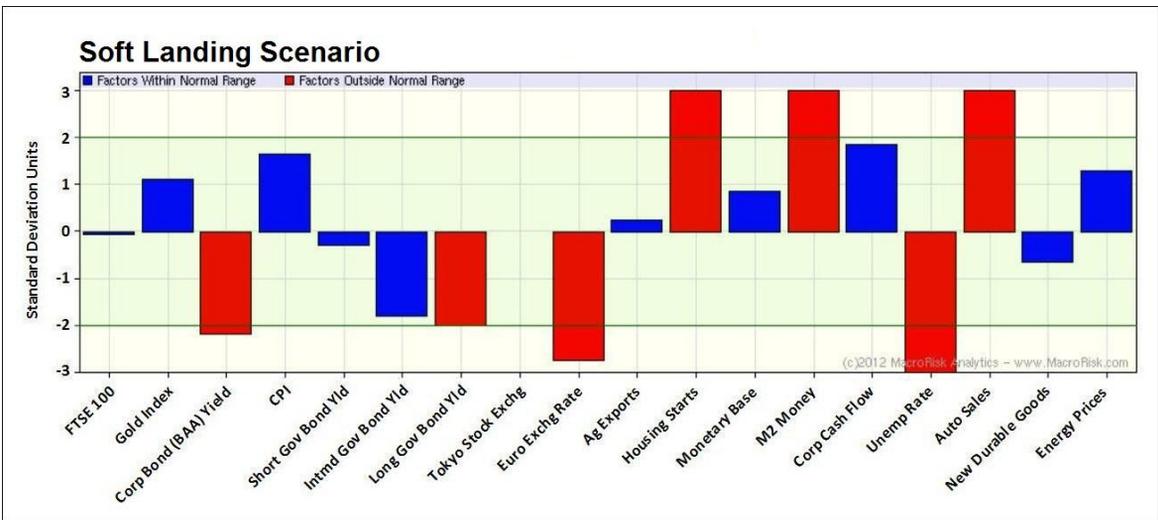
Source: MacroRisk Analytics

# China Scenarios at a Glance

The following series of graphs provide a snapshot of the three China scenarios: **Soft Landing**, **Hard Landing**, and **Trade Wars**. In turn, each of the three projected scenarios are then compared to the current economic status, providing an easy, visual reference.

## Soft Landing Scenario

Comparing the Soft Landing scenario to the current economic status illustrates that some of the resulting economic trends are already programmed into the economy. In particular, the Soft Landing scenario will result in a similar condition with respect to auto sales and unemployment rate. The decline in orders for new durable goods is important as is the anticipated increase in agricultural exports. The market decline in the FTSE and Tokyo Stock Exchange Index are also noticeable.

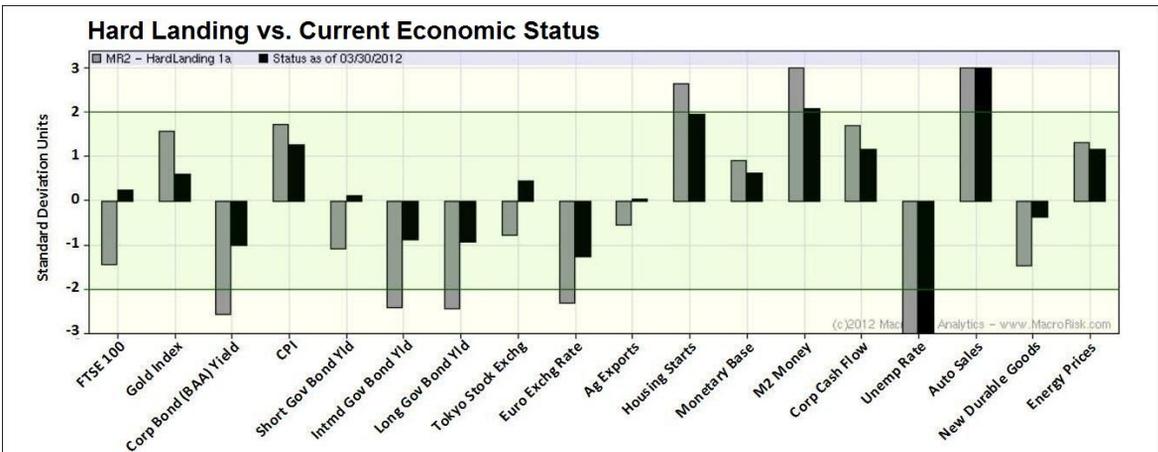
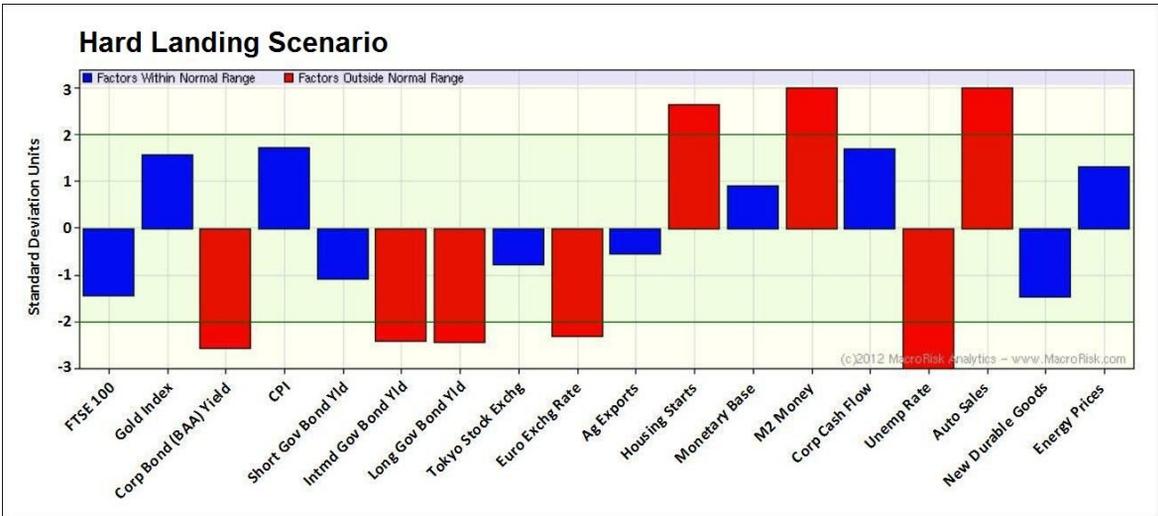


Source: MacroRisk Analytics

# Hard Landing Scenario

In a Hard Landing scenario, investor uncertainty skyrockets, and the FTSE 100 and Tokyo Stock Exchange Indexes decline. Commodity prices fall, particularly those that were in high demand due to Chinese expansion. The U.S. dollar rises in value as investors seek a safe haven. Orders for new durable goods, along with the PMI, softens. The dampening in both the real estate market and the overall domestic GDP, due to the softening bilateral trade with a post-Hard-Landing China, is likely.

However, the net result for the U.S. may be positive. The rush of capital back into the U.S. will be associated with easing credit, as demonstrated by the faster growth of M2 relative to the monetary base and the softening of bond yields. The unemployment rate will likely fall, and consumers will respond with an increase in housing starts and automobile purchases.

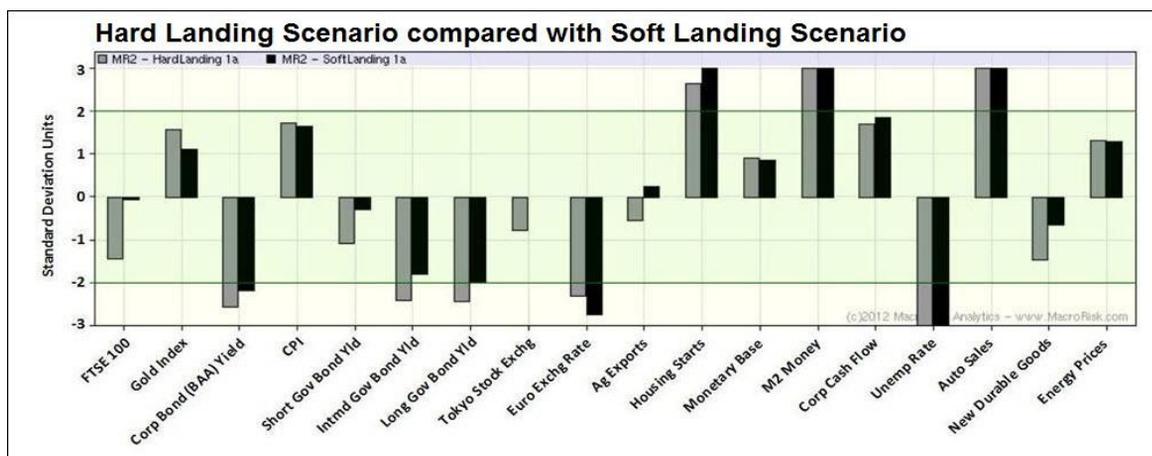


Source: MacroRisk Analytics

## Soft Landing vs. Hard Landing

The Soft Landing scenario has a somewhat surprising number of similarities to the Hard Landing scenario. Still, it is more muted in its effects on credit markets, durable goods orders, and the FTSE and Tokyo Stock Exchange Index.

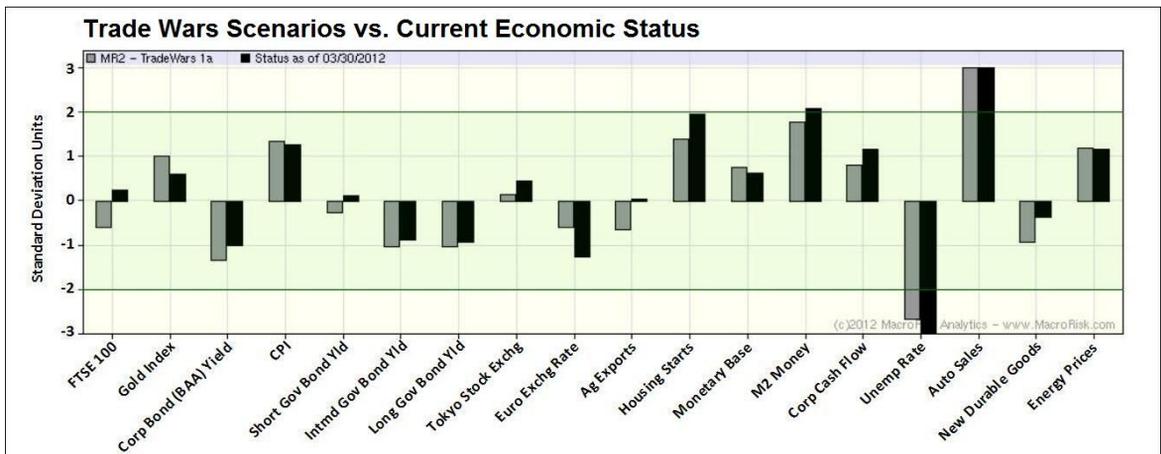
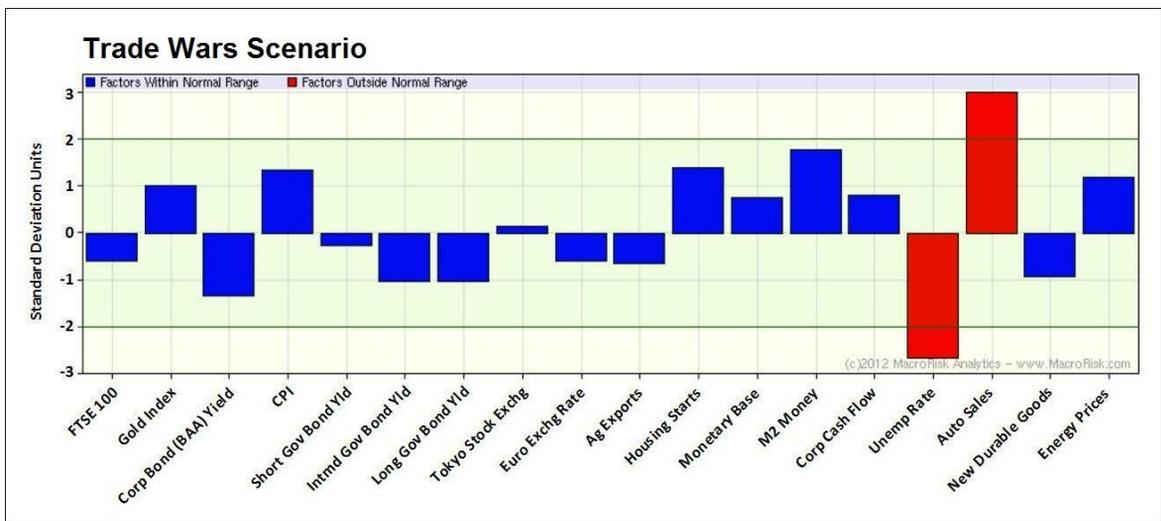
Additionally, under a Soft Landing, agricultural exports remain more stable, and corporate cash flow is expected to increase to a greater degree than for a Hard Landing.



Source: MacroRisk Analytics

# Trade Wars Scenario

Trade Wars would result in an increase in the domestic economic activity measures in the United States. Still, it could also be expected to mute the fragile U.S. economic recovery. Inflation would go up some, while unemployment likely would fall compared to the current levels. Bond yields would be expected to fall below the current levels, while housing starts would be a bit smaller than otherwise expected. Meanwhile, credit availability, as measured by comparing the changes in the M2 money supply to the monetary base, is expected to be relatively more restrictive.



Source: MacroRisk Analytics

## Scenario-Based Optimized ETF Portfolios

The following optimized portfolios are based on our analysis of the three China scenarios as seen through the prism of the 18 MacroRisk Factors referenced on the preceding pages.

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.

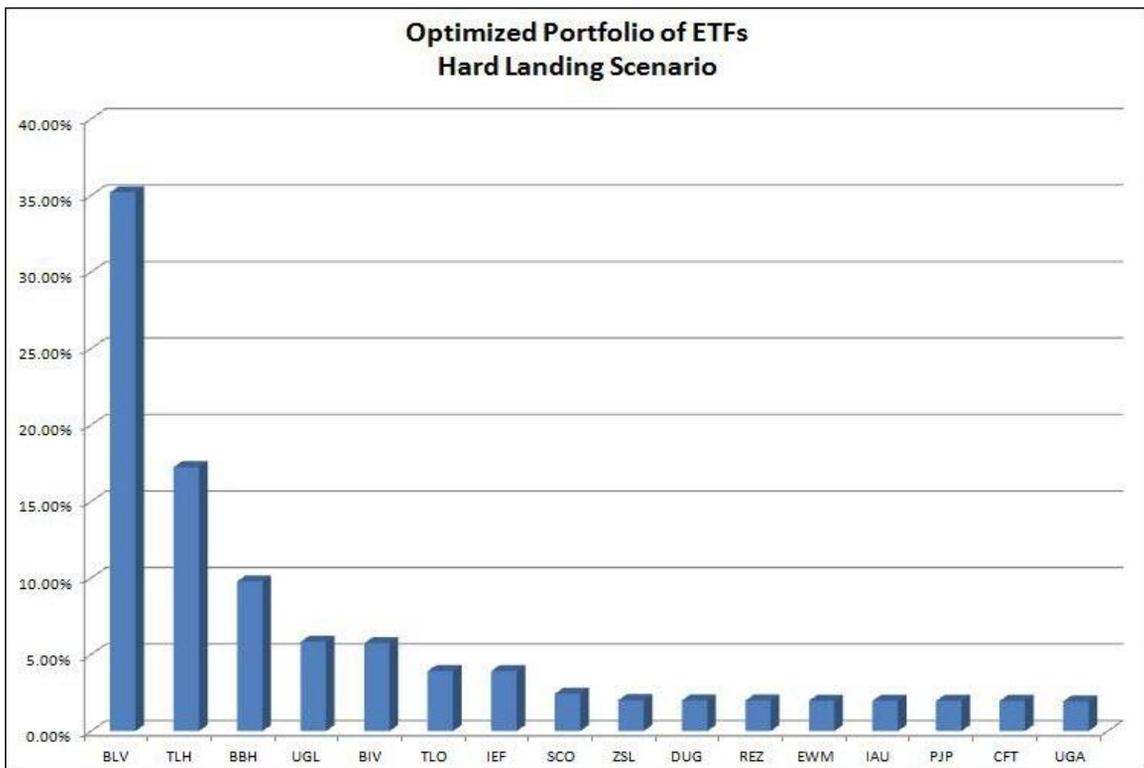
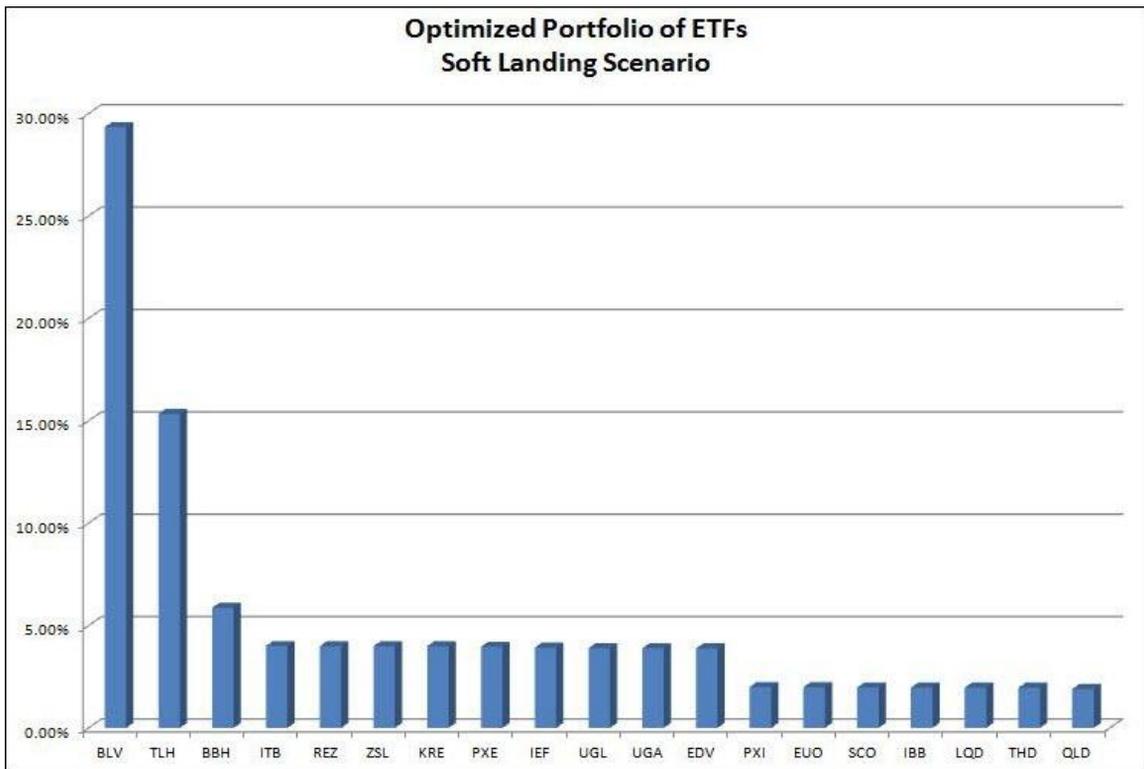
Optimized Portfolio of ETFs			
Soft Landing Scenario			
ETF Name	Symbol	Weight	
Vanguard Bd Index Fd Inc Long Term Bond	BLV	29.34%	
iShares Tr Barclays 10-20Yr	TLH	15.33%	
Market Vectors ETF Tr Biotech	BBH	5.87%	
iShares Tr DJ Home Constn	ITB	4.00%	
iShares Tr Resident Pls CA	REZ	3.99%	
Proshares Tr II Shrt Silv New	ZSL	3.99%	
SPDR Series Trust S&P Regl Bkg	KRE	3.99%	
Powershares ETF Trust Dyn En Ex Prod	PXE	3.96%	
iShares Tr Barclays 7-10 Yr	IEF	3.92%	
Proshares Tr II Ultra Gold	UGL	3.89%	
United Sts Gasoline Fd LP Units	UGA	3.89%	
Vanguard World Fd Extended Dur	EDV	3.88%	
Powershares ETF Trust Energy Sec Por	PXI	2.00%	
Proshares Tr II Ultrashrt Euro	EUO	1.99%	
Ultrashort DJ-AIG Crude Oil NAV	SCO	1.98%	
iShares Tr NASDAQ Bio Indx	IBB	1.97%	
iShares Tr iBoxx Inv Cpbd	LQD	1.97%	
iShares Inc MSCI Thailand	THD	1.97%	
Proshares Tr Pshs Ultra QQQ	QLD	1.90%	

Optimized Portfolio of ETFs			
Hard Landing Scenario			
ETF Name	Symbol	Weight	
Vanguard Bd Index Fd Inc Long Term Bond	BLV	35.21%	
iShares Tr Barclays 10-20Yr	TLH	17.25%	
Market Vectors ETF Tr Biotech	BBH	9.79%	
Proshares Tr II Ultra Gold	UGL	5.83%	
Vanguard Bd Index Fd Inc Intermed Term	BIV	5.74%	
SPDR Series Trust Brclys Lg Trs	TLO	3.93%	
iShares Tr Barclays 7-10 Yr	IEF	3.92%	
Ultrashort DJ-AIG Crude Oil NAV	SCO	2.44%	
Proshares Tr II Shrt Silv New	ZSL	2.02%	
Proshares Tr Ultshrt Oil New	DUG	2.00%	
iShares Tr Resident Pls CA	REZ	2.00%	
iShares Inc MSCI Malaysia	EWM	1.99%	
iShares Gold Trust iShares	IAU	1.98%	
Powershares ETFTrust Dyn Phrma Port	PJP	1.98%	
iShares Tr Barclays Cr Bd	CFT	1.97%	
United Sts Gasoline Fd LP Units	UGA	1.94%	

Source: MacroRisk Analytics

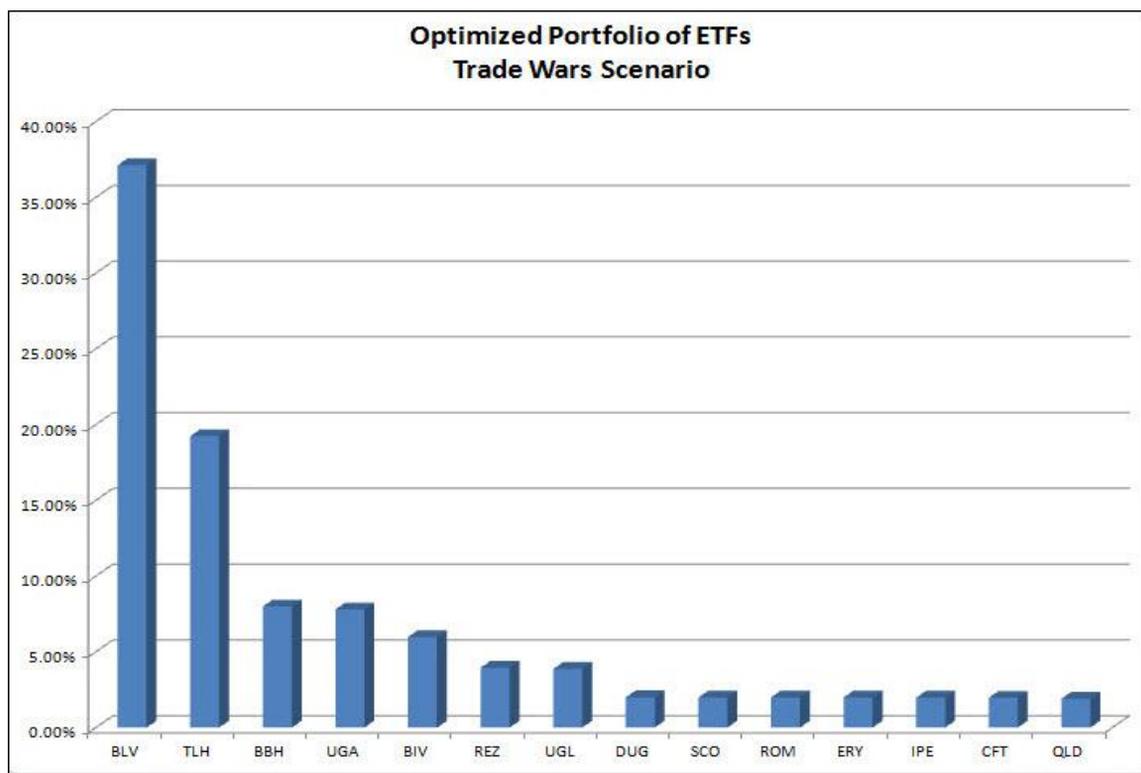
Optimized Portfolio of ETFs			
Trade Wars Scenario			
ETF Name	Symbol	Weight	
Vanguard Bd Index Fd Inc Long Term Bond	BLV	37.13%	
iShares Tr Barclays 10-20Yr	TLH	19.24%	
Market Vectors ETF Tr Biotech	BBH	7.99%	
United Sts Gasoline Fd Lp Units	UGA	7.80%	
Vanguard Bd Index Fd Inc Intermed Term	BIV	5.98%	
iShares Tr Resident Pls Ca	REZ	3.95%	
Proshares Tr II Ultra Gold	UGL	3.87%	
Proshares Tr Ultshrt Oil New	DUG	2.00%	
Ultrashort DJ-AIG Crudeoil Nav	SCO	1.99%	
Proshares Tr Pshs Ultra Tec	ROM	1.99%	
Direxion Shs ETF Tr Dly Enrgy Bear	ERY	1.99%	
Spdr Series Trust Barcl Cap Tips	IPE	1.98%	
iShares Tr Barclays Cr Bd	CFT	1.97%	
Proshares Tr Pshs Ultra QQQ	QLD	1.91%	

## Charts of Optimized ETF Portfolio Weights



Source: MacroRisk Analytics

## Charts of Optimized ETF Portfolio Weights



Source: MacroRisk Analytics

## Scenario-Based Optimized Stock (S&P 1500) Portfolios

The following optimized portfolios are based on our analysis of the three China scenarios as seen through the prism of the 18 MacroRisk Factors referenced on the preceding pages.

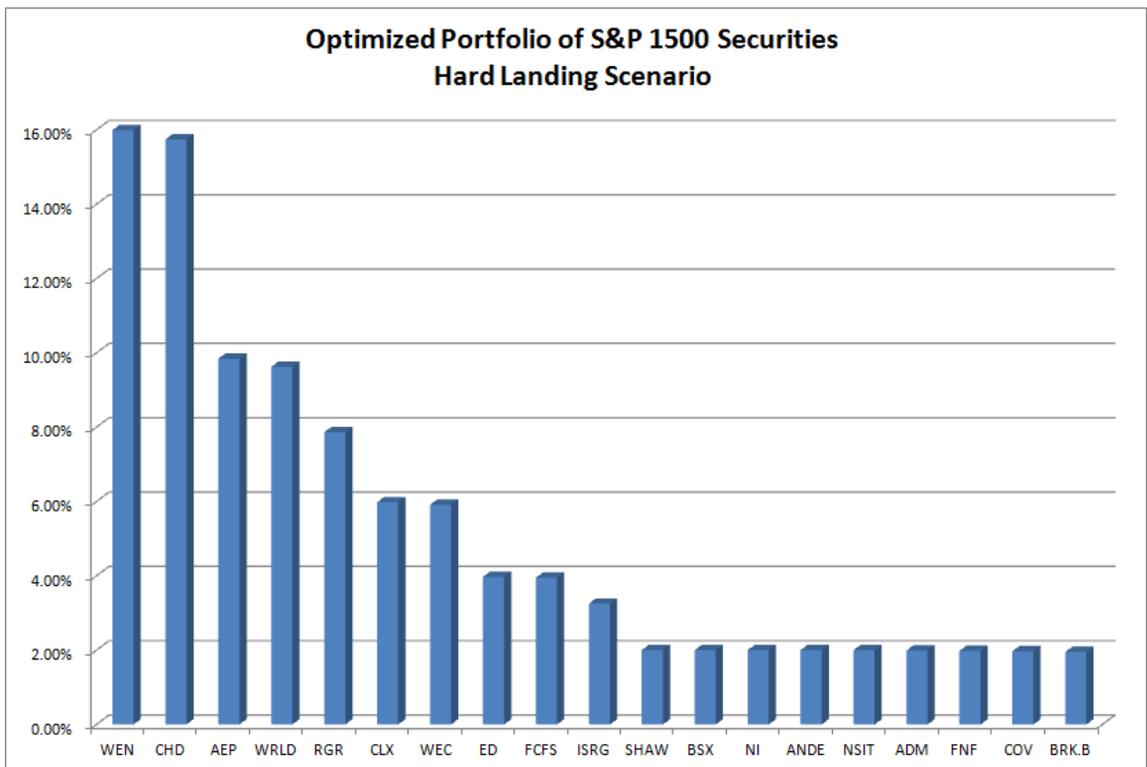
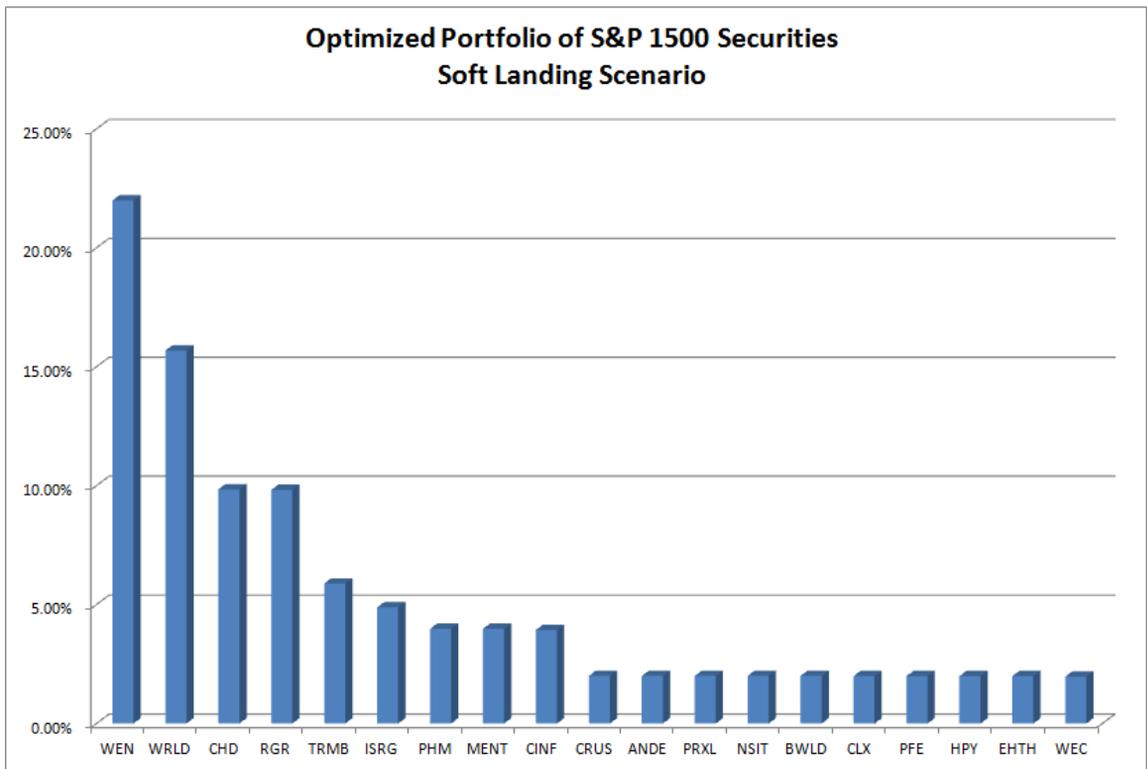
Optimized Portfolio of S&P 1500 Securities		
Soft Landing Scenario		
Company Name	Symbol	Weight
Wendys Co	WEN	21.99%
World Accep Corp Del	WRLD	15.68%
Church & Dwight Inc	CHD	9.84%
Sturm Ruger & Co Inc	RGR	9.82%
Trimble Navigation Ltd	TRMB	5.88%
Intuitive Surgical Inc	ISRG	4.88%
Pulte Group Inc	PHM	3.98%
Mentor Graphics Corp	MENT	3.98%
Cincinnati Finl Corp	CINF	3.93%
Cirrus Logic Inc	CRUS	2.00%
Andersons Inc	ANDE	2.00%
Parexel Intl Corp	PRXL	2.00%
Insight Enterprises Inc	NSIT	2.00%
Buffalo Wild Wings Inc	BWLD	2.00%
Clorox Co Del	CLX	1.99%
Pfizer Inc	PFE	1.99%
Heartland Pmt Sys Inc	HPY	1.99%
Ehealth Inc	EHTH	1.99%
Wisconsin Energy Corp	WEC	1.97%
Hanmi Finl Corp	HAFC	0.10%

Optimized Portfolio of S&P 1500 Securities		
Hard Landing Scenario		
Company Name	Symbol	Weight
Wendys Co	WEN	15.99%
Church & Dwight Inc	CHD	15.74%
American Elec Pwr Inc	AEP	9.84%
World Accep Corp Del	WRLD	9.62%
Sturm Ruger & Co Inc	RGR	7.86%
Clorox Co Del	CLX	5.98%
Wisconsin Energy Corp	WEC	5.91%
Consolidated Edison Inc	ED	3.97%
First Cash Finl Svcs Inc	FCFS	3.95%
Intuitive Surgical Inc	ISRG	3.25%
Shaw Group Inc	SHAW	2.00%
Boston Scientific Corp	BSX	2.00%
Nisource Inc	NI	2.00%
Andersons Inc	ANDE	2.00%
Insight Enterprises Inc	NSIT	2.00%
Archer Daniels Midland Co	ADM	1.99%
Fidelity National Financial	FNF	1.98%
Covidien Plc	COV	1.97%
Berkshire Hathaway Inc Del	BRK.B	1.95%

Source: MacroRisk Analytics

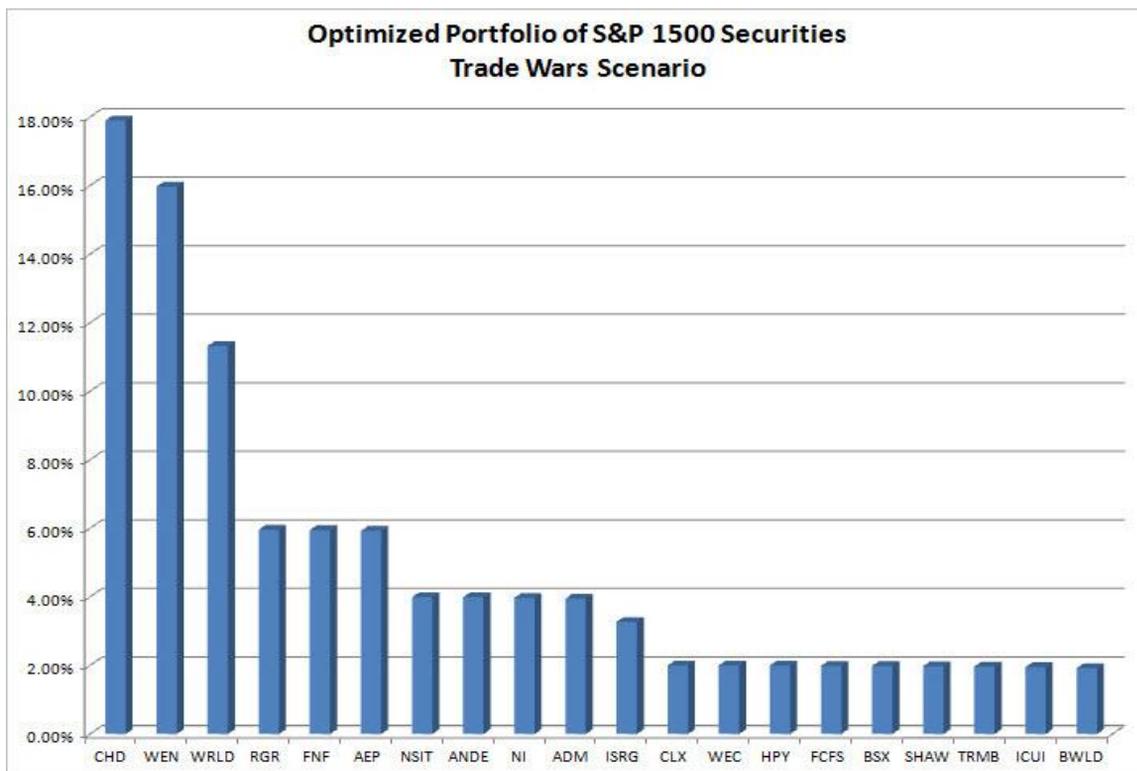
Optimized Portfolio of S&P 1500 Securities		
Trade Wars Scenario		
Company Name	Symbol	Weight
Church & Dwight Inc	CHD	17.90%
Wendys Co	WEN	15.97%
World Accep Corp Del	WRLD	11.32%
Sturm Ruger & Co Inc	RGR	5.96%
Fidelity National Financial	FNF	5.95%
American Elec Pwr Inc	AEP	5.93%
Insight Enterprises Inc	NSIT	3.99%
Andersons Inc	ANDE	3.99%
NiSource Inc	NI	3.97%
Archer Daniels Midland Co	ADM	3.95%
Intuitive Surgical Inc	ISRG	3.27%
Clorox Co Del	CLX	2.00%
Wisconsin Energy Corp	WEC	2.00%
Heartland Pmt Sys Inc	HPY	2.00%
First Cash Finl Svcs Inc	FCFS	1.99%
Boston Scientific Corp	BSX	1.99%
Shaw Group Inc	SHAW	1.98%
Trimble Navigation Ltd	TRMB	1.97%
ICU Med Inc	ICUI	1.95%
Buffalo Wild Wings Inc	BWLD	1.92%

# Charts of Optimized S&P 1500 Portfolio Weights



Source: MacroRisk Analytics

## Charts of Optimized S&P 1500 Portfolio Weights



Source: MacroRisk Analytics

# Sabrient's QuickResponse™ Stocks

To construct the QuickResponse™ stock portfolios, Sabrient applied its proprietary quantitative methodology to single macroeconomic factors that lend themselves to backtesting for verification. For this report, we used strong and weak trends of the Australian dollar, copper prices, the euro, 10-year Treasuries, and the VIX to identify stocks that should outperform their benchmarks during each trend. For updates, go to [MacroReport InterActive](#).

## Strong/Weak Australian Dollar Trends

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods of a **rising Australian dollar**.

Strong Australian Dollar Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
ORLY	O'Reilly Automotive	Cyclical Consumer Goods Services	Retailers	96.45	12,249	83
HOTT	Hot Topic	Cyclical Consumer Goods Services	Retailers	9.91	417	82
ALGT	Allegiant	Industrials	Transportation	59.15	1,129	79
STC	Stewart Information Services	Financials	Insurance	15.73	304	78
CATO	Cato	Cyclical Consumer Goods Services	Retailers	27.75	809	77
SAFM	Sanderson Farms	Non-Cyclical Consumer Goods Services	Food Beverages	51.27	1,141	77
BMY	Bristol-Myers	Healthcare	Biotechnology Pharmaceuticals	34.23	57,767	76
LTD	Limited	Cyclical Consumer Goods Services	Retailers	49.26	14,449	76
PLCE	Childrens Place	Cyclical Consumer Goods Services	Retailers	47.68	1,168	76
AAP	Advance Auto Parts	Cyclical Consumer Goods Services	Retailers	90.78	6,649	75
AEO	American Eagle	Cyclical Consumer Goods Services	Retailers	17.55	3,414	75
CVGW	Calavo Growers	Non-Cyclical Consumer Goods Services	Food Beverages	27.42	406	75
DLTR	Dollar Tree	Cyclical Consumer Goods Services	Retailers	99.55	11,513	75
PBY	Pep Boys	Cyclical Consumer Goods Services	Retailers	14.95	789	74
ROST	Ross	Cyclical Consumer Goods Services	Retailers	60.03	13,599	74
SHW	Sherwin-Williams	Basic Materials	Chemicals	118.39	12,292	73
ALK	Alaska Air	Industrials	Transportation	34.51	2,464	72
AZO	AutoZone	Cyclical Consumer Goods Services	Retailers	381.73	14,877	72
PGN	Progress Energy	Utilities	Utilities	52.48	15,493	72
RCII	Rent-A-Center	Cyclical Consumer Goods Services	Retailers	36.76	2,180	72

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods of a **falling Australian dollar**, and could be considered “defensive Australian dollar” stocks.

Weak Australian Dollar Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
ADSK	Autodesk	Technology	Software IT Services	40.42	9,187	86
AREX	Approach Resources Inc	Energy	Energy	35.01	1,166	86
PMTC	Parametric	Technology	Software IT Services	20.25	2,412	83
GEOI	GeoResources	Energy	Energy	30.68	786	81
ALB	Albemarle	Basic Materials	Chemicals	65.44	5,836	80
BGC	General Cable	Industrials	Industrial Goods	28.37	1,432	79
HAYN	Haynes	Basic Materials	Mineral Resources	59.30	729	79
UTEK	Ultratech	Technology	Technology Equipment	32.18	843	79
FARO	FARO	Industrials	Industrial Goods	53.00	897	77
FCX	Freeport-McMoRan	Basic Materials	Mineral Resources	37.57	35,630	77
TTMI	TTM	Technology	Technology Equipment	10.42	848	76
ARW	Arrow Electronics	Industrials	Industrial Goods	40.97	4,579	75
CGNX	Cognex	Industrials	Industrial Goods	39.45	1,685	75
CYMI	Cymer	Technology	Technology Equipment	48.53	1,501	75
RSTI	Rofin-Sinar	Industrials	Industrial Goods	24.52	699	75
CNX	CONSOL Energy	Energy	Energy	33.72	7,673	74
SGMS	Scientific Games	Cyclical Consumer Goods Services	Cyclical Consumer Services	11.37	1,052	74
TER	Teradyne	Technology	Technology Equipment	16.30	3,041	74
TRMB	Trimble Navigation	Technology	Technology Equipment	54.09	6,747	74
WOR	Worthington	Basic Materials	Mineral Resources	17.92	1,253	74

## Strong/Weak Copper Trends

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods of dramatically rising copper prices.

Strong Copper Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
HAYN	Haynes	Basic Materials	Mineral Resources	59.30	729	88
ATI	Allegheny	Basic Materials	Mineral Resources	40.45	4,331	87
LNC	Lincoln National	Financials	Insurance	23.66	6,756	87
TEX	Terex	Industrials	Industrial Goods	24.57	2,698	86
DNR	Denbury	Energy	Energy	17.79	6,945	84
GT	Goodyear	Cyclical Consumer Goods Services	Automobiles Auto Parts	11.24	2,751	83
KWR	Quaker Chemical	Basic Materials	Chemicals	41.42	535	83
AREX	Approach Resources Inc	Energy	Energy	35.01	1,166	81
GEOI	GeoResources	Energy	Energy	30.68	786	81
SGY	Stone Energy	Energy	Energy	26.12	1,292	81
SSYS	Stratasys	Technology	Technology Equipment	47.85	1,019	81
ZEUS	Olympic Steel	Basic Materials	Mineral Resources	22.24	243	81
BGC	General Cable	Industrials	Industrial Goods	28.37	1,432	80
CIEN	CIENA	Technology	Technology Equipment	15.99	1,578	80
LUFK	Lufkin Industries	Energy	Energy	72.70	2,442	80
OIS	Oil States	Energy	Energy	70.52	3,641	80
MTRN	Brush Engineered Materials	Industrials	Industrial Goods	25.73	525	79
RSTI	Rofin-Sinar	Industrials	Industrial Goods	24.52	699	79
SPY	Swift Energy	Energy	Energy	26.68	1,143	79
X	US Steel	Basic Materials	Mineral Resources	28.99	4,175	79

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods when copper prices are low or falling and could be considered “defensive copper” stocks.

Weak Copper Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
ALGT	Allegiant	Industrials	Transportation	59.15	1,129	87
ALK	Alaska Air	Industrials	Transportation	34.51	2,464	82
ORLY	O'Reilly Automotive	Cyclical Consumer Goods Services	Retailers	96.45	12,249	78
PVH	PVH Corp.	Cyclical Consumer Goods Services	Cyclical Consumer Products	88.52	6,091	77
AZO	AutoZone	Cyclical Consumer Goods Services	Retailers	381.73	14,877	76
MDS	Midas	Non-Cyclical Consumer Goods Services	Personal Household Products Services	11.50	166	76
RTEC	Rudolph Technologies	Technology	Technology Equipment	10.71	342	76
SHW	Sherwin-Williams	Basic Materials	Chemicals	118.39	12,292	75
VFC	VF	Cyclical Consumer Goods Services	Cyclical Consumer Products	151.03	16,824	75
SAFM	Sanderson Farms	Non-Cyclical Consumer Goods Services	Food Beverages	51.27	1,141	74
STMP	Stamps.com	Cyclical Consumer Goods Services	Retailers	28.55	466	74
TJX	TJX	Cyclical Consumer Goods Services	Retailers	41.02	30,941	74
LTD	Limited	Cyclical Consumer Goods Services	Retailers	49.26	14,449	73
PBY	Pep Boys	Cyclical Consumer Goods Services	Retailers	14.95	789	73
AAP	Advance Auto Parts	Cyclical Consumer Goods Services	Retailers	90.78	6,649	72
M	Macys Inc.	Cyclical Consumer Goods Services	Retailers	39.10	16,362	72
ROST	Ross	Cyclical Consumer Goods Services	Retailers	60.03	13,599	72
SJM	Smucker	Non-Cyclical Consumer Goods Services	Food Beverages	79.97	8,958	72
TSCO	Tractor Supply	Cyclical Consumer Goods Services	Retailers	99.46	7,143	72
PGN	Progress Energy	Utilities	Utilities	52.48	15,493	71

## Strong/Weak Euro Trends

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods of a dramatically **rising euro**.

Strong Euro Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
DLTR	Dollar Tree	Cyclical Consumer Goods Services	Retailers	99.55	11,513	80
AMT	American Tower	Telecommunications Services	Telecommunications Services	64.00	25,198	77
CMTL	Comtech	Technology	Technology Equipment	31.26	594	77
ORLY	O'Reilly Automotive	Cyclical Consumer Goods Services	Retailers	96.45	12,249	77
ROST	Ross	Cyclical Consumer Goods Services	Retailers	60.03	13,599	77
AZO	AutoZone	Cyclical Consumer Goods Services	Retailers	381.73	14,877	76
MDS	Midas	Non-Cyclical Consumer Goods Services	Personal Household Products Services	11.50	166	76
RTEC	Rudolph Technologies	Technology	Technology Equipment	10.71	342	76
SAFM	Sanderson Farms	Non-Cyclical Consumer Goods Services	Food Beverages	51.27	1,141	76
STC	Stewart Information Services	Financials	Insurance	15.73	304	76
CVGW	Calavo Growers	Non-Cyclical Consumer Goods Services	Food Beverages	27.42	406	75
LMT	Lockheed Martin	Industrials	Industrial Goods	90.84	29,491	75
AAP	Advance Auto Parts	Cyclical Consumer Goods Services	Retailers	90.78	6,649	74
ALGT	Allegiant	Industrials	Transportation	59.15	1,129	74
BMY	Bristol-Myers	Healthcare	Biotechnology Pharmaceuticals	34.23	57,767	74
TW	Watson Wyatt	Industrials	Industrial Services	65.01	4,635	74
DUK	Duke	Utilities	Utilities	21.01	28,111	73
FLO	Flowers Foods	Non-Cyclical Consumer Goods Services	Food Beverages	21.40	2,910	73
NFLX	Netflix	Non-Cyclical Consumer Goods Services	Personal Household Products Services	106.11	5,880	73
PETM	PETSMART	Cyclical Consumer Goods Services	Retailers	56.76	6,237	73

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods when the **euro is low or falling**, and could be considered “defensive euro” stocks.

Weak Euro Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
WDR	Waddell & Reed	Financials	Banking Services	30.69	2,627	78
IVZ	Invesco	Financials	Banking Services	24.18	10,788	77
HAYN	Haynes	Basic Materials	Mineral Resources	59.30	729	75
DY	Dycom	Industrials	Industrial Services	22.54	756	73
GEOI	GeoResources	Energy	Energy	30.68	786	73
ICON	Iconix	Cyclical Consumer Goods Services	Cyclical Consumer Products	17.09	1,239	73
NCI	Navigant Consulting	Industrials	Industrial Services	14.39	746	73
SGY	Stone Energy	Energy	Energy	26.12	1,292	73
AVD	American Vanguard	Basic Materials	Chemicals	24.37	673	71
PEI	Pennsylvania REIT	Financials	Real Estate	15.17	842	71
AMP	Ameriprise	Financials	Banking Services	53.45	11,852	70
FOR	Forestar Real Estate Group Inc	Financials	Real Estate	15.20	527	70
KFY	Korn Ferry	Industrials	Industrial Services	16.12	771	70
LAD	Lithia Motors	Cyclical Consumer Goods Services	Retailers	25.85	670	70
LFUS	Littelfuse	Industrials	Industrial Goods	60.07	1,298	70
UTEK	Ultratek	Technology	Technology Equipment	32.18	843	70
VCLK	ValueClick	Cyclical Consumer Goods Services	Cyclical Consumer Services	21.04	1,696	70
PETD	Petroleum Development	Energy	Energy	31.65	748	69
TNC	Tennant	Industrials	Industrial Goods	47.84	904	69
WXS	Wright Express	Industrials	Industrial Services	62.55	2,420	69

## Strong/Weak 10-Year Treasuries Trends

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods of dramatically rising 10-year Treasury prices.

Strong 10-Year Treasuries Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
TEX	Terex	Industrials	Industrial Goods	24.57	2,698	87
BGC	General Cable	Industrials	Industrial Goods	28.37	1,432	85
WWD	Woodward Governor	Industrials	Industrial Goods	40.88	2,822	81
LNC	Lincoln National	Financials	Insurance	23.66	6,756	80
JEF	Jefferies	Financials	Banking Services	16.46	3,389	78
MS	Morgan Stanley	Financials	Banking Services	17.48	34,583	78
ATI	Allegheny	Basic Materials	Mineral Resources	40.45	4,331	77
A	Agilent	Industrials	Industrial Goods	42.10	14,635	76
ADSK	Autodesk	Technology	Software IT Services	40.42	9,187	76
HAYN	Haynes	Basic Materials	Mineral Resources	59.30	729	76
HIG	Hartford	Financials	Insurance	20.04	9,375	76
MLHR	Herman Miller	Industrials	Industrial Services	20.56	1,199	76
SF	Stifel Financial	Financials	Banking Services	35.33	1,898	76
WHR	Whirlpool	Cyclical Consumer Goods Services	Cyclical Consumer Products	64.17	4,937	76
CIEN	CIENA	Technology	Technology Equipment	15.99	1,578	75
CLF	Cleveland-Cliffs	Basic Materials	Mineral Resources	67.30	9,558	75
ETFC	E*TRADE	Financials	Banking Services	10.48	2,992	75
URI	United Rentals	Industrials	Industrial Services	45.16	2,880	75
AAON	AAON	Industrials	Industrial Goods	19.47	478	74
CMI	Cummins	Industrials	Industrial Goods	116.03	22,299	74

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during periods when 10-year Treasury prices are low or dropping.

Weak 10-Year Treasuries Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
ALGT	Allegiant	Industrials	Transportation	59.15	1,129	83
AMSF	AMERISAFE	Financials	Insurance	26.30	477	79
BBBY	Bed Bath & Beyond	Cyclical Consumer Goods Services	Retailers	68.56	16,540	79
ORLY	O'Reilly Automotive	Cyclical Consumer Goods Services	Retailers	96.45	12,249	79
DLTR	Dollar Tree	Cyclical Consumer Goods Services	Retailers	99.55	11,513	78
FORR	Forrester Research	Technology	Software IT Services	34.14	774	77
MCD	McDonalds	Cyclical Consumer Goods Services	Cyclical Consumer Services	95.94	97,489	77
AWR	American States Water	Utilities	Utilities	35.63	672	76
DUK	Duke	Utilities	Utilities	21.01	28,111	76
GIS	General Mills	Non-Cyclical Consumer Goods Services	Food Beverages	38.94	25,206	76
AZO	AutoZone	Cyclical Consumer Goods Services	Retailers	381.73	14,877	75
COST	Costco Wholesale	Cyclical Consumer Goods Services	Retailers	87.58	38,007	75
ED	ConEd	Utilities	Utilities	58.61	17,166	75
EE	El Paso Electric	Utilities	Utilities	30.34	1,217	75
KMB	Kimberly-Clark	Basic Materials	Applied Resources	76.47	30,079	75
MNRO	Monro Muffler Brake	Cyclical Consumer Goods Services	Retailers	41.52	1,282	75
PGN	Progress Energy	Utilities	Utilities	52.48	15,493	75
SJM	Smucker	Non-Cyclical Consumer Goods Services	Food Beverages	79.97	8,958	75
TJX	TJX	Cyclical Consumer Goods Services	Retailers	41.02	30,941	75
SO	Southern	Utilities	Utilities	45.83	39,836	74

## Strong/Weak VIX Trends

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market during dramatically rising VIX levels.

Strong VIX Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
ED	ConEd	Utilities	Utilities	58.61	17,166	89
SO	Southern	Utilities	Utilities	45.83	39,836	88
AZO	AutoZone	Cyclical Consumer Goods Services	Retailers	381.73	14,877	87
DUK	Duke	Utilities	Utilities	21.01	28,111	87
ORLY	O'Reilly Automotive	Cyclical Consumer Goods Services	Retailers	96.45	12,249	87
MCD	McDonalds	Cyclical Consumer Goods Services	Cyclical Consumer Services	95.94	97,489	86
PGN	Progress Energy	Utilities	Utilities	52.48	15,493	86
DLTR	Dollar Tree	Cyclical Consumer Goods Services	Retailers	99.55	11,513	85
HSY	Hershey	Non-Cyclical Consumer Goods Services	Food Beverages	63.15	13,348	85
KMB	Kimberly-Clark	Basic Materials	Applied Resources	76.47	30,079	84
PCG	PG&E	Utilities	Utilities	43.20	18,414	84
AEP	American Electric	Utilities	Utilities	38.33	18,548	83
K	Kellogg	Non-Cyclical Consumer Goods Services	Food Beverages	53.99	19,270	83
XEL	Xcel Energy	Utilities	Utilities	26.76	13,030	83
CAG	ConAgra Foods	Non-Cyclical Consumer Goods Services	Food Beverages	26.25	10,830	82
D	Dominion Resources	Utilities	Utilities	51.02	29,113	82
PPL	PPL	Utilities	Utilities	27.15	15,734	82
WR	Westar	Utilities	Utilities	28.18	3,568	82
FDO	Family Dollar	Cyclical Consumer Goods Services	Retailers	68.34	7,978	81
KFT	Kraft	Non-Cyclical Consumer Goods Services	Food Beverages	38.54	68,295	81

The Sabrient model indicates that these QuickResponse™ Stocks should outperform the market when VIX levels are low or dropping, and could be considered “defensive VIX” stocks.

Weak VIX Trend						
Sabrient's QuickResponse™ Stocks						
TICKER	STOCK	SECTOR	INDUSTRY	PRICE (4-20-12)	MARKET CAP (MIL)	RANKED PERFORMANCE
GEOI	GeoResources	Energy	Energy	30.68	786	88
ANR	Alpha Natural Resources	Energy	Energy	16.15	3,557	87
NSIT	Insight Enterprises	Technology	Technology Equipment	20.46	909	85
SFY	Swift Energy	Energy	Energy	26.68	1,143	81
ROCK	Gibraltar Steel	Cyclical Consumer Goods Services	Cyclical Consumer Products	13.41	409	80
ACO	AMCOL	Basic Materials	Mineral Resources	29.45	943	79
HAYN	Haynes	Basic Materials	Mineral Resources	59.30	729	79
HLX	Helix	Energy	Energy	17.36	1,834	79
LXU	Lsb Industries	Basic Materials	Chemicals	38.01	848	79
MSA	Mine Safety Appliances	Industrials	Industrial Services	41.12	1,511	79
ACAT	Arctic Cat	Cyclical Consumer Goods Services	Automobiles Auto Parts	46.48	871	78
AEIS	Advanced Energy	Industrials	Industrial Goods	12.02	482	77
ASTE	Astec Industries	Industrials	Industrial Goods	34.81	791	77
SBNY	Signature Bank	Financials	Banking Services	64.21	2,958	77
GT	Goodyear	Cyclical Consumer Goods Services	Automobiles Auto Parts	11.24	2,751	76
NOG	NOG	Energy	Energy	19.78	1,256	76
WGO	Winnepago	Cyclical Consumer Goods Services	Cyclical Consumer Products	9.19	268	76
GFF	Griffon	Cyclical Consumer Goods Services	Cyclical Consumer Products	9.71	599	75
TRN	Trinity Industries	Industrials	Industrial Conglomerates	30.82	2,472	75
WDR	Waddell & Reed	Financials	Banking Services	30.69	2,627	75

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.

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

These two tables list the international and regional indexes with the highest and lowest correlations with the MSCI China Index. The tables include correlations of returns, which illustrate short-term information.

Top 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI China Index									
MSCI Index	to the MSCI: China Index	to the MSCI: Far East Index	to the MSCI: Australia Index	to the MSCI: Hong Kong Index	to the MSCI: Japan Index	to the MSCI: Korea Index	to the MSCI: Singapore Index	to the MSCI: Thailand Index	to the MSCI: USA Index
CHINA	1.0000	0.8610	0.7543	0.9345	0.5785	0.7445	0.7435	0.6595	0.1776
ZHONG HUA	0.9949	0.8685	0.7635	0.9656	0.5861	0.7518	0.7587	0.6726	0.1773
GOLDEN DRAGON	0.9698	0.9069	0.7896	0.9367	0.6199	0.8103	0.7541	0.6739	0.1986
HONG KONG	0.9345	0.8469	0.7508	1.0000	0.5786	0.7347	0.7617	0.6745	0.1682
AC FAR EAST EX JAPAN	0.9344	0.9385	0.8306	0.9130	0.6552	0.9066	0.8004	0.7026	0.2274
AC ASIA EX JAPAN	0.9327	0.9264	0.8342	0.9109	0.6339	0.8969	0.8155	0.7107	0.2410
EM ASIA	0.9202	0.9251	0.8210	0.8841	0.6345	0.9108	0.7820	0.6963	0.2239
EM FAR EAST	0.9196	0.9381	0.8142	0.8829	0.6592	0.9223	0.7596	0.6842	0.2057
AC PACIFIC EX JAPAN	0.9108	0.9316	0.9196	0.8947	0.6649	0.8866	0.8394	0.7040	0.3062
AC ASIA PACIFIC	0.8727	0.9870	0.8882	0.8600	0.8292	0.8756	0.7940	0.6621	0.2722
AC ASIA	0.8710	0.9981	0.8189	0.8562	0.8592	0.8785	0.7526	0.6461	0.2134
AC PACIFIC	0.8664	0.9899	0.8834	0.8543	0.8427	0.8750	0.7812	0.6523	0.2649
AC FAR EAST	0.8610	1.0000	0.8083	0.8469	0.8756	0.8758	0.7331	0.6315	0.2015
SOUTH EAST ASIA	0.8335	0.8238	0.8311	0.8356	0.5520	0.7364	0.9079	0.8234	0.2955
PACIFIC EX JAPAN	0.8281	0.8506	0.9863	0.8403	0.6210	0.7706	0.8783	0.6748	0.4142

It is probably no surprise that the indexes showing the greatest **returns** correlation with the MSCI China Index are Asian indexes, with the Zhong Hua and the “Golden Dragon” being almost perfectly correlated.

Given the extent of China’s influence on the American capital markets, it may be a surprise that the USA Index is the least correlated of the MSCI International and Regional Indexes. Also relatively uncorrelated with China are European, North American, and various world indexes.

Bottom 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI China Index									
MSCI Index	to the MSCI: China Index	to the MSCI: Far East Index	to the MSCI: Australia Index	to the MSCI: Hong Kong Index	to the MSCI: Japan Index	to the MSCI: Korea Index	to the MSCI: Singapore Index	to the MSCI: Thailand Index	to the MSCI: USA Index
USA	0.1776	0.2015	0.4363	0.1682	0.1231	0.1971	0.4675	0.1917	1.0000
NORTH AMERICA	0.2029	0.2245	0.4673	0.1952	0.1381	0.2156	0.4950	0.2191	0.9981
GREECE	0.2473	0.2806	0.4321	0.2465	0.2011	0.2653	0.4328	0.3077	0.3538
ITALY	0.3044	0.2945	0.5778	0.3290	0.1736	0.2819	0.6211	0.3532	0.6791
SPAIN	0.3379	0.3331	0.5914	0.3500	0.2265	0.2986	0.6106	0.3552	0.6508
WRLD EX EUROPE	0.3417	0.3973	0.6056	0.3345	0.3078	0.3554	0.5982	0.3153	0.9716
PORTUGAL	0.3597	0.3359	0.6047	0.3713	0.2038	0.2867	0.6152	0.4154	0.5976
WRLD EX AUSTRALIA	0.3616	0.3940	0.6354	0.3636	0.2849	0.3574	0.6546	0.3551	0.9404
IRELAND	0.3628	0.3491	0.6244	0.3751	0.2165	0.3223	0.6662	0.3775	0.6783
WRLD EX UK	0.3750	0.4151	0.6509	0.3740	0.3079	0.3732	0.6596	0.3617	0.9454
WRLD EX EMU	0.3751	0.4185	0.6488	0.3733	0.3110	0.3805	0.6451	0.3515	0.9511
NETHERLANDS	0.3816	0.3649	0.6457	0.3915	0.2299	0.3390	0.6684	0.3917	0.7162
SWITZERLAND	0.3820	0.4044	0.6234	0.3999	0.3015	0.3584	0.6609	0.3696	0.6721
FINLAND	0.3844	0.3691	0.6450	0.3928	0.2321	0.3491	0.6626	0.3864	0.7110
THE WRLD INDEX	0.3885	0.4226	0.6657	0.3902	0.3068	0.3836	0.6751	0.3753	0.9313

Source: MacroRisk Analytics

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

These two tables list the international and regional indexes with the highest and lowest correlations with the MSCI China Index. **The tables include correlations of the index values which capture longer term trends.**

Top 15 Correlations of Values of MSCI International and Regional Indexes to MSCI China Index									
MSCI Index	to the MSCI: China Index	to the MSCI: Far East Index	to the MSCI: Australia Index	to the MSCI: Hong Kong Index	to the MSCI: Japan Index	to the MSCI: Korea Index	to the MSCI: Singapore Index	to the MSCI: Thailand Index	to the MSCI: Phillipines Index
CHINA	1.0000	0.9468	0.9648	0.9769	0.7395	0.9499	0.9568	0.6915	0.3227
ZHONG HUA	0.9983	0.9568	0.9600	0.9878	0.7596	0.9513	0.9664	0.7209	0.3586
GOLDEN DRAGON	0.9925	0.9669	0.9566	0.9867	0.7850	0.9515	0.9760	0.7005	0.3355
AC PACIFIC EX JAPAN	0.9895	0.9744	0.9746	0.9821	0.8015	0.9745	0.9757	0.7201	0.3755
EM ASIA	0.9876	0.9806	0.9588	0.9817	0.8188	0.9721	0.9834	0.7097	0.3568
EM FAR EAST	0.9873	0.9804	0.9582	0.9831	0.8146	0.9787	0.9770	0.7328	0.3936
AC ASIA EX JAPAN	0.9871	0.9821	0.9562	0.9859	0.8221	0.9693	0.9863	0.7212	0.3684
AC FAR EAST EX JAPAN	0.9869	0.9823	0.9555	0.9878	0.8194	0.9744	0.9818	0.7415	0.3998
PACIFIC EX JAPAN	0.9834	0.9561	0.9905	0.9709	0.7737	0.9587	0.9647	0.6925	0.3421
HONG KONG	0.9769	0.9672	0.9313	1.0000	0.8000	0.9390	0.9755	0.7862	0.4470
WRLD EX USA	0.9677	0.9616	0.9711	0.9522	0.8094	0.9552	0.9604	0.6484	0.2975
CANADA	0.9664	0.9247	0.9627	0.9416	0.7415	0.9148	0.9460	0.6378	0.2405
AUSTRALIA	0.9648	0.9171	1.0000	0.9313	0.7177	0.9420	0.9241	0.6273	0.2831
AC ASIA PACIFIC	0.9647	0.9960	0.9467	0.9732	0.8834	0.9722	0.9879	0.7325	0.3937
EAFE	0.9629	0.9613	0.9672	0.9486	0.8137	0.9554	0.9572	0.6466	0.3032

Similar to the **returns** table, the Zhong Hua and “Golden Dragon” are the most correlated with the MSCI China Index. Canada, Australia, and the EAFE index all have high **value-** correlations as well.

Philippines edges out the USA as being the least correlated in values with MSCI China, but now several of the other Asian countries join the list, including Indonesia, Thailand, Japan, “Far East”, and Malaysia.

Bottom 15 Correlations of Values of MSCI International and Regional Indexes to MSCI China Index									
MSCI Index	to the MSCI: China Index	to the MSCI: Far East Index	to the MSCI: Australia Index	to the MSCI: Hong Kong Index	to the MSCI: Japan Index	to the MSCI: Korea Index	to the MSCI: Singapore Index	to the MSCI: Thailand Index	to the MSCI: Phillipines Index
PHILIPPINES	0.3227	0.4377	0.2831	0.4470	0.4618	0.4216	0.3759	0.8110	1.0000
USA	0.6673	0.6905	0.6779	0.6886	0.5872	0.7422	0.6228	0.7222	0.7169
INDONESIA	0.6816	0.7533	0.6537	0.7209	0.6973	0.7342	0.7530	0.6902	0.4852
THAILAND	0.6915	0.7607	0.6273	0.7862	0.7049	0.7168	0.7330	1.0000	0.8110
NEW ZEALAND	0.6995	0.8462	0.6705	0.7938	0.8764	0.7451	0.8450	0.6954	0.4830
NORTH AMERICA	0.7383	0.7540	0.7475	0.7545	0.6352	0.7998	0.6950	0.7443	0.6864
JAPAN	0.7395	0.9123	0.7177	0.8000	1.0000	0.8299	0.8643	0.7049	0.4618
IRELAND	0.7522	0.7716	0.7617	0.7768	0.6519	0.7985	0.7189	0.7252	0.6505
WRLD EX EUROPE	0.8143	0.8409	0.8208	0.8315	0.7276	0.8710	0.7885	0.7750	0.6557
PORTUGAL	0.8317	0.7712	0.8382	0.7803	0.5990	0.7411	0.8207	0.3085	-0.1705
FAR EAST	0.8406	0.9676	0.8121	0.8912	0.9848	0.8974	0.9363	0.7517	0.4667
WRLD EX EMU	0.8545	0.8739	0.8614	0.8665	0.7481	0.9003	0.8291	0.7686	0.6131
MALAYSIA	0.8545	0.8963	0.8071	0.8941	0.7828	0.8839	0.8697	0.8423	0.6676
SPAIN	0.8642	0.7983	0.8918	0.7949	0.6167	0.7995	0.8312	0.3253	-0.1095
GREECE	0.8895	0.8302	0.8664	0.8406	0.6540	0.7990	0.8747	0.4148	-0.0647

Source: MacroRisk Analytics

## Correlation of Index-Based Returns: MSCI International and Regional Indexes to MSCI Far East Index

These two tables list the international and regional indexes with the highest and lowest correlations with the MSCI Far East Index. The tables include correlations of **returns**, which illustrate short-term information.

Top 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI Far East Index									
MSCI Index	<i>to the MSCI: China Index</i>	<i>to the MSCI: Far East Index</i>	<i>to the MSCI: Australia Index</i>	<i>to the MSCI: Hong Kong Index</i>	<i>to the MSCI: Japan Index</i>	<i>to the MSCI: Korea Index</i>	<i>to the MSCI: Singapore Index</i>	<i>to the MSCI: Thailand Index</i>	<i>to the MSCI: USA Index</i>
AC FAR EAST	0.8610	1.0000	0.8083	0.8469	0.8756	0.8758	0.7331	0.6315	0.2015
AC ASIA	0.8710	0.9981	0.8189	0.8562	0.8592	0.8785	0.7526	0.6461	0.2134
AC PACIFIC	0.8664	0.9899	0.8834	0.8543	0.8427	0.8750	0.7812	0.6523	0.2649
AC ASIA PACIFIC	0.8727	0.9870	0.8882	0.8600	0.8292	0.8756	0.7940	0.6621	0.2722
PACIFIC	0.7720	0.9595	0.8718	0.7778	0.9132	0.7839	0.7432	0.5876	0.2870
AC FAR EAST EX JAPAN	0.9344	0.9385	0.8306	0.9130	0.6552	0.9066	0.8004	0.7026	0.2274
EM FAR EAST	0.9196	0.9381	0.8142	0.8829	0.6592	0.9223	0.7596	0.6842	0.2057
FAR EAST	0.6962	0.9380	0.7027	0.7070	0.9838	0.7206	0.6156	0.5032	0.1717
AC PACIFIC EX JAPAN	0.9108	0.9316	0.9196	0.8947	0.6649	0.8866	0.8394	0.7040	0.3062
AC ASIA EX JAPAN	0.9327	0.9264	0.8342	0.9109	0.6339	0.8969	0.8155	0.7107	0.2410
EM ASIA	0.9202	0.9251	0.8210	0.8841	0.6345	0.9108	0.7820	0.6963	0.2239
GOLDEN DRAGON	0.9698	0.9069	0.7896	0.9367	0.6199	0.8103	0.7541	0.6739	0.1986
KOREA	0.7445	0.8758	0.7398	0.7347	0.6477	1.0000	0.6643	0.5484	0.1971
JAPAN	0.5785	0.8756	0.6084	0.5786	1.0000	0.6477	0.4859	0.4035	0.1231
ZHONG HUA	0.9949	0.8685	0.7635	0.9656	0.5861	0.7518	0.7587	0.6726	0.1773

In terms of **returns**, the MSCI Far East Index has greatest correlation with various Asian indexes, and least correlation with USA and various European indexes.

Bottom 15 Correlations of Returns of MSCI International and Regional Indexes to MSCI Far East Index									
MSCI Index	<i>to the MSCI: China Index</i>	<i>to the MSCI: Far East Index</i>	<i>to the MSCI: Australia Index</i>	<i>to the MSCI: Hong Kong Index</i>	<i>to the MSCI: Japan Index</i>	<i>to the MSCI: Korea Index</i>	<i>to the MSCI: Singapore Index</i>	<i>to the MSCI: Thailand Index</i>	<i>to the MSCI: USA Index</i>
USA	0.1776	0.2015	0.4363	0.1682	0.1231	0.1971	0.4675	0.1917	1.0000
NORTH AMERICA	0.2029	0.2245	0.4673	0.1952	0.1381	0.2156	0.4950	0.2191	0.9981
GREECE	0.2473	0.2806	0.4321	0.2465	0.2011	0.2653	0.4328	0.3077	0.3538
ITALY	0.3044	0.2945	0.5778	0.3290	0.1736	0.2819	0.6211	0.3532	0.6791
SPAIN	0.3379	0.3331	0.5914	0.3500	0.2265	0.2986	0.6106	0.3552	0.6508
PORTUGAL	0.3597	0.3359	0.6047	0.3713	0.2038	0.2867	0.6152	0.4154	0.5976
IRELAND	0.3628	0.3491	0.6244	0.3751	0.2165	0.3223	0.6662	0.3775	0.6783
NETHERLANDS	0.3816	0.3649	0.6457	0.3915	0.2299	0.3390	0.6684	0.3917	0.7162
BELGIUM	0.3886	0.3658	0.6391	0.3973	0.2272	0.3336	0.6632	0.3911	0.6780
FINLAND	0.3844	0.3691	0.6450	0.3928	0.2321	0.3491	0.6626	0.3864	0.7110
EMU	0.3901	0.3751	0.6524	0.3996	0.2407	0.3440	0.6830	0.4013	0.7238
NORWAY	0.4057	0.3768	0.6694	0.4161	0.2105	0.3592	0.6708	0.4494	0.7071
GERMANY	0.3972	0.3814	0.6449	0.4004	0.2465	0.3509	0.6799	0.4007	0.7351
FRANCE	0.4049	0.3856	0.6627	0.4134	0.2482	0.3487	0.6942	0.4073	0.7232
SWEDEN	0.3907	0.3881	0.6636	0.4056	0.2401	0.3789	0.6922	0.4307	0.7176

Source: MacroRisk Analytics

## Correlation of Index-Based Values: MSCI International and Regional Indexes to MSCI Far East Index

These two tables list the international and regional indexes with the highest and lowest correlations with the MSCI Far East Index. The tables include correlations of the index values which capture longer term trends.

Top 15 Correlations of Values of MSCI International and Regional Indexes to MSCI Far East Index									
MSCI Index	to the MSCI: China Index	to the MSCI: Far East Index	to the MSCI: Australia Index	to the MSCI: Hong Kong Index	to the MSCI: Japan Index	to the MSCI: Korea Index	to the MSCI: Singapore Index	to the MSCI: Thailand Index	to the MSCI: Philippines Index
AC FAR EAST	0.9468	1.0000	0.9171	0.9672	0.9123	0.9675	0.9839	0.7607	0.4377
AC ASIA	0.9512	0.9992	0.9218	0.9685	0.9069	0.9651	0.9879	0.7446	0.4114
AC PACIFIC	0.9626	0.9970	0.9453	0.9730	0.8864	0.9751	0.9852	0.7451	0.4139
AC ASIA PACIFIC	0.9647	0.9960	0.9467	0.9732	0.8834	0.9722	0.9879	0.7325	0.3937
PACIFIC	0.9240	0.9934	0.9173	0.9466	0.9325	0.9544	0.9747	0.7412	0.4220
SINGAPORE	0.9568	0.9839	0.9241	0.9755	0.8643	0.9428	1.0000	0.7330	0.3759
AC FAR EAST EX JAPAN	0.9869	0.9823	0.9555	0.9878	0.8194	0.9744	0.9818	0.7415	0.3998
AC ASIA EX JAPAN	0.9871	0.9821	0.9562	0.9859	0.8221	0.9693	0.9863	0.7212	0.3684
EM ASIA	0.9876	0.9806	0.9588	0.9817	0.8188	0.9721	0.9834	0.7097	0.3568
EM FAR EAST	0.9873	0.9804	0.9582	0.9831	0.8146	0.9787	0.9770	0.7328	0.3936
AC PACIFIC EX JAPAN	0.9895	0.9744	0.9746	0.9821	0.8015	0.9745	0.9757	0.7201	0.3755
FAR EAST	0.8406	0.9676	0.8121	0.8912	0.9848	0.8974	0.9363	0.7517	0.4667
KOREA	0.9499	0.9675	0.9420	0.9390	0.8299	1.0000	0.9428	0.7168	0.4216
HONG KONG	0.9769	0.9672	0.9313	1.0000	0.8000	0.9390	0.9755	0.7862	0.4470
GOLDEN DRAGON	0.9925	0.9669	0.9566	0.9867	0.7850	0.9515	0.9760	0.7005	0.3355

In terms of **values** correlations with the MSCI Far East Index, the list is dominated by Asian indexes including Singapore, which was absent from the previous high correlation rankings.

The list of low correlations is again led by the Philippines, followed by USA, Indonesia, North America, Thailand, and various European indexes.

Bottom 15 Correlations of Values of MSCI International and Regional Indexes to MSCI Far East Index									
MSCI Index	to the MSCI: China Index	to the MSCI: Far East Index	to the MSCI: Australia Index	to the MSCI: Hong Kong Index	to the MSCI: Japan Index	to the MSCI: Korea Index	to the MSCI: Singapore Index	to the MSCI: Thailand Index	to the MSCI: Philippines Index
PHILIPPINES	0.3227	0.4377	0.2831	0.4470	0.4618	0.4216	0.3759	0.8110	1.0000
USA	0.6673	0.6905	0.6779	0.6886	0.5872	0.7422	0.6228	0.7222	0.7169
INDONESIA	0.6816	0.7533	0.6537	0.7209	0.6973	0.7342	0.7530	0.6902	0.4852
NORTH AMERICA	0.7383	0.7540	0.7475	0.7545	0.6352	0.7998	0.6950	0.7443	0.6864
THAILAND	0.6915	0.7607	0.6273	0.7862	0.7049	0.7168	0.7330	1.0000	0.8110
PORTUGAL	0.8317	0.7712	0.8382	0.7803	0.5990	0.7411	0.8207	0.3085	-0.1705
IRELAND	0.7522	0.7716	0.7617	0.7768	0.6519	0.7985	0.7189	0.7252	0.6505
SPAIN	0.8642	0.7983	0.8918	0.7949	0.6167	0.7995	0.8312	0.3253	-0.1095
GREECE	0.8895	0.8302	0.8664	0.8406	0.6540	0.7990	0.8747	0.4148	-0.0647
WRLD EX EUROPE	0.8143	0.8409	0.8208	0.8315	0.7276	0.8710	0.7885	0.7750	0.6557
NEW ZEALAND	0.6995	0.8462	0.6705	0.7938	0.8764	0.7451	0.8450	0.6954	0.4830
FINLAND	0.9292	0.8513	0.9458	0.8842	0.6352	0.8572	0.8741	0.4927	0.1128
ITALY	0.9190	0.8570	0.9333	0.8679	0.6600	0.8609	0.8794	0.4492	0.0436
WRLD EX EMU	0.8545	0.8739	0.8614	0.8665	0.7481	0.9003	0.8291	0.7686	0.6131
NETHERLANDS	0.9413	0.8899	0.9573	0.9040	0.6957	0.9019	0.8964	0.5567	0.2004

Source: MacroRisk Analytics

# Correlation of ETFs to the ISM Purchasing Managers Index

The following tables list the ETFs with the highest and lowest correlations with the ISM Purchasing Managers 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 following tables, the differences between these lists may be significant.

Correlations of ETFs to the ISM Purchasing Managers Index				
Top 15 Returns				
ETF Name	ETF Symbol	Returns Correlation	Values Correlation	
CURRENCYSHS JAPANESE YEN TR JAPANESE YEN	FXV	0.1918	-0.6231	
PROSHARES TR II PSHS ULTRA YEN	YCL	0.1577	-0.5884	
ISHARES TR MSCI PERU CAP	EPU	0.1441	0.2436	
GLOBAL X FDS GLB X URANIUM	URA	0.1281	0.8611	
ISHARES TR 10+ YR CR BD	CLY	0.1269	-0.7951	
SPDR SERIES TRUST BARC CAPTL ETF	SCPB	0.1248	-0.3027	
ISHARES TR S&P CAL AMTFR M	CMF	0.1107	-0.6822	
ISHARES GOLD TRUST ISHARES	IAU	0.0826	-0.7326	
CLAYMORE EXCHANGE TRD FD TR GUGG ENH SHT DU	GSY	0.0815	0.0441	
POWERSHS DB MULTI SECT COMM DB GOLD FUND	DGL	0.0813	-0.7227	
PROSHARES TR II ULTRA GOLD	UGL	0.0803	-0.6574	
ETFs GOLD TR SHS	SGOL	0.0799	-0.7317	
ISHARES TR 2016 S&P AMTFR	MUAE	0.0795	-0.6125	
SPDR GOLD TRUST GOLD SHS	GLD	0.0788	-0.7319	
ISHARES TR BARCLYS 1-3YR C	CSJ	0.0733	-0.4237	

Correlations of ETFs to the ISM Purchasing Managers Index				
Bottom 15 Returns				
MSCI Index	ETF Symbol	Returns Correlation	Values Correlation	
PROSHARES TR II ULTRASHORT YEN	YCS	-0.1862	0.7029	
POWERSHARES GLOBAL ETF TRUST CALI MUNI ETF	PWZ	-0.1012	-0.7180	
ISHARES TR HLTH CR IDX FD	AXHE	-0.1002	0.3811	
ISHARES TR RETAIL CAP IDX	RTL	-0.0976	0.1882	
FACTORSHARES S&P CRUDE OIL P COM UNT BEN IT	FOL	-0.0963	0.6595	
UNITED STATES NATL GAS FUND UNIT PAR \$0.001	UNG	-0.0927	0.5154	
PROSHARES TR II ULTRASHRT NEW	GLL	-0.0830	0.8109	
TEUCRIUM COMMODITY TR NATURAL GAS FD	NAGS	-0.0809	0.6126	
VANGUARD SCOTTSDALE FDS MORTG-BACK SEC	VMBS	-0.0779	-0.8119	
POWERSHARES GLOBAL ETF TRUST SOVEREIGN DEBT	PCY	-0.0758	-0.6390	
UNITED STS 12 MONTH NAT GAS UNIT BEN INT	UNL	-0.0734	0.5501	
ISHARES DIVERSIFIED ALTR TR SH BEN INT	ALT	-0.0734	0.7735	
MARKET VECTORS ETF TR MKTVEC LMUNETF	MLN	-0.0720	-0.6826	
CURRENCYSHARES CDN DLR TR CDN DOLLAR SHS	FXC	-0.0701	0.6711	
MARKET VECTORS ETF TR PRE-RF MUN ETF	PRB	-0.0671	-0.4775	

In terms of **returns**, the highest correlations with the PMI are dominated by gold, uranium, Yen, and Peru. The lowest **returns**-correlations are with natural gas, retail, mortgage, and muni-bond funds.

In terms of **value** correlations with the PMI, the highest correlations are with timber and transportation ETFs, followed by a mix of technology, commodities, Turkey, and Italy ETFs. The lowest correlations are with various bond ETFs.

Correlations of ETFs to the ISM Purchasing Managers Index				
Top 15 Values				
MSCI Index	ETF Symbol	Values Correlation	Returns Correlation	
ISHARES TR S&P GTFIDX ETF	WOOD	0.8975	-0.0189	
CLAYMORE EXCHANGE TRD FD TR GUGG TIMBER ET	CUT	0.8872	-0.0038	
PROSHARES TR RAFI LG SHT FD	RALS	0.8815	0.0089	
CLAYMORE EXCHANGE TRD FD TR GUGG SHIPNG E	SEA	0.8799	-0.0167	
FACTORSHARES S&P US EQTY PRE COM UNT BEN IT	FSE	0.8774	0.0186	
DIREXION SHS ETF TR DLY SCOND 3XBV	SOXL	0.8745	0.0152	
ISHARES TR S&P NA MULTIMD	IGN	0.8729	0.0187	
DIREXION SHS ETF TR DLY FIN BULL NE	FAS	0.8677	0.0163	
POWERSHARES ETF TR II GLBL WIND ENRG	PWND	0.8664	-0.0410	
FIRST TR EXCHANGE TRADED FD NAS CLNEDG GRE	QCLN	0.8650	0.0071	
FIRST TR ISE GLB WIND ENRG E COM SHS	FAN	0.8632	-0.0328	
ISHARES INC MSCI TURKEY FD	TUR	0.8625	-0.0262	
GLOBAL X FDS GLB X URANIUM	URA	0.8611	0.1281	
ISHARES TR DJ BROKER-DEAL	IAI	0.8597	0.0013	
ISHARES INC MSCI ITALY	EWI	0.8573	0.0068	

Correlations of ETFs to the ISM Purchasing Managers Index				
Bottom 15 Values				
MSCI Index	ETF Symbol	Values Correlation	Returns Correlation	
VANGUARD SCOTTSDALE FDS SHTRM GVT BD ET	VGSH	-0.8984	0.0070	
PIMCO ETF TR 1-3YR USTREIDX	TUZ	-0.8950	0.0481	
ISHARES TR BARCLYS 1-3 YR	SHY	-0.8916	-0.0147	
SCHWAB STRATEGIC TR SHT TM US TRES	SCHO	-0.8874	-0.0446	
SPDR SERIES TRUST BRCLYS INTER E	ITE	-0.8712	-0.0340	
ISHARES TR BARCLYS 3-7 YR	IEI	-0.8690	-0.0558	
PIMCO ETF TR 3-7YR US TREAS	FIVZ	-0.8649	-0.0410	
VANGUARD SCOTTSDALE FDS INT-TERM GOV	VGIT	-0.8571	-0.0274	
SCHWAB STRATEGIC TR INTRM TRM TRES	SCHR	-0.8566	-0.0670	
PIMCO ETF TR 7-15 YR US TRS	TENZ	-0.8410	-0.0356	
PROSHARES TR ULTR 7-10 TREA	UST	-0.8402	-0.0478	
ISHARES TR BARCLYS 7-10 YR	IEF	-0.8389	-0.0368	
DIREXION SHS ETF TR 7 10YR TRES BU	TYD	-0.8320	-0.0368	
PIMCO ETF TR 15YR US TRS FD	TRSY	-0.8306	0.0296	
VANGUARD BD INDEX FD INC SHORT TRM BOND	BSV	-0.8298	-0.0238	

Source: MacroRisk Analytics

# Correlation of ETFs to Dow Jones–UBS Copper Index

The following tables list the ETFs with the highest and lowest correlations with the Dow Jones–UBS Copper 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, the differences between these lists may be significant.

Correlations of ETFs to the Dow Jones - UBS Copper Index			
Top 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
POWERSHS DB MULTI SECT COMM DB BASE METALS	DBB	0.8760	0.9752
THOMSON REUTERS JEFFERIES GR GLBL COMDTY	CRBQ	0.7129	0.8938
GLOBAL X FDS COPPER MNR ETF	COPX	0.7068	0.9382
ISHARES TR MSCI EMG MATS	EMMT	0.7023	0.9375
FIRST TR ISE GLOBL COPPR IND	CU	0.6994	0.9279
MARKET VECTORS ETF TR LAT AM SML CAP	LATM	0.6886	0.9236
EGA EMERGING GLOBAL SHS TR EGSHARE EM MET	EMT	0.6818	0.9186
VANGUARD TOTAL INTNL STOCK E INTL STOCK ETF	VXUS	0.6792	0.8746
SPDR INDEX SHS FDS INTL MTRLs SEC	IRV	0.6781	0.9132
POWERSHARES ETF TR II EMRG MKTS INFR	PXR	0.6726	0.9072
FIRST TR BICK INDEX FD COM SHS	BICK	0.6695	0.8964
WISDOMTREE TRUST COMM COUNTRY E	CCKE	0.6692	0.8304
INDEXIQ ETF TR CAN SML CP ETF	CNDA	0.6691	0.9234
FOCUSSHARES TR MRNGSTR BS MAT	FBM	0.6686	0.8513
WISDOMTREE TRUST GLB NAT RES FD	GNAT	0.6675	0.8675

Correlations of ETFs to the Dow Jones - UBS Copper Index			
Bottom 15 Returns			
MSCI Index	ETF Symbol	Returns Correlation	Values Correlation
PROSHARES TR SHT MSCI NEW	EEV	-0.6558	-0.5048
DIREXION SHS ETF TR DLY EM BR3X NEW	EDZ	-0.6555	-0.3382
PROSHARES TR PSHS SH MSCI EM	EUM	-0.6508	-0.6558
PROSHARES TR ULTSHT CHINA 2	FXP	-0.6370	-0.4442
PROSHARES TR FTSE CHINA 25	YXI	-0.6365	-0.5939
PROSHARES TR II ULSHT DJ UBS C	CMD	-0.6325	-0.8981
PROSHARES TR SHT BASIC MAT	SBM	-0.6224	-0.5776
PROSHARES TR BASIC MAT NEW	SMN	-0.6191	-0.4027
PROSHARES TR ULSH MSCI BRZL	BZQ	-0.6170	-0.5241
DIREXION SHS ETF TR LATN AM BEAR3X	LHB	-0.6167	-0.2423
DIREXION SHS ETF TR CHINA BEAR 3X	YANG	-0.6091	-0.5862
PROSHARES TR ULTRSH MSCI PA	JPX	-0.5978	-0.3321
PROSHARES TR PSHS SHT OIL&G	DDG	-0.5855	-0.2332
UNITED STS SHORT OIL FD LP UNITS	DNO	-0.5813	-0.0939
DIREXION SHS ETF TR INDIA BEAR 3X	INDZ	-0.5759	-0.6288

Copper's daily **returns** are most highly correlated with other metals, emerging markets, basic materials, and natural resources. Copper is negatively correlated with **returns** of short basic materials funds, China short funds, and other shorted emerging markets and commodities.

Copper's **values** are most highly correlated with base metals, but Canadian dollars, emerging markets materials, and Latin America small caps are also on the list. The lowest **values**-correlations components are primarily bond funds.

Correlations of ETFs to the Dow Jones - UBS Copper Index			
Top 15 Values			
MSCI Index	ETF Symbol	Values Correlation	Returns Correlation
POWERSHS DB MULTI SECT COMM DB BASE METALS	DBB	0.9752	0.8760
CURRENCYSHARES CDN DLR TR CDN DOLLAR SHS	FXC	0.9521	0.5763
WISDOMTREE TRUST DRYFS CURR ETF	CEW	0.9491	0.6256
ETFs PALLADIUM TR SH BEN INT	PALL	0.9477	0.6491
POWERSHARES ETF TRUST II GLOBL AGRI ETF	PAGG	0.9406	0.6032
GLOBAL X FDS COPPER MNR ETF	COPX	0.9382	0.7068
ISHARES TR MSCI EMG MATS	EMMT	0.9375	0.7023
WISDOMTREE TRUST STH AFRIC RAND	SZR	0.9360	0.3074
GLOBAL X FDS CHINA CONS ETF	CHIQ	0.9299	0.6398
POWERSHARES ETF TRUST II DWA EMRG MKTS	PIE	0.9286	0.6415
WISDOMTREE TR DREYFUS CMM FD	CXC	0.9280	0.6484
FIRST TR ISE GLOBL COPPR IND	CU	0.9279	0.6994
MARKET VECTORS ETF TR LAT AM SML CAP	LATM	0.9236	0.6886
INDEXIQ ETF TR CAN SML CP ETF	CNDA	0.9234	0.6691
ISHARES TR MATRLS IDX FD	AXMT	0.9209	0.3895

Correlations of ETFs to the Dow Jones - UBS Copper Index			
Bottom 15 Values			
MSCI Index	ETF Symbol	Values Correlation	Returns Correlation
PROSHARES TR II ULSHT DJ UBS C	CMD	-0.8981	-0.6325
PIMCO ETF TR 25YR+ ZERO U S	ZROZ	-0.8790	-0.4119
VANGUARD WORLD FD EXTENDED DUR	EDV	-0.8747	-0.4051
DIREXION SHS ETF TR 20YR TRES BULL	TMF	-0.8735	-0.4095
PROSHARES TR ULTRA 20YR TRE	UBT	-0.8651	-0.4159
ISHARES TR BARCLYS 20+ YR	TLT	-0.8567	-0.4049
SPDR SERIES TRUST BRCLYS LG TRS	TLO	-0.8460	-0.4320
VANGUARD SCOTTSDALE FDS LONG-TERM GOV	VGLT	-0.8459	-0.4138
POWERSHARES GLOBAL ETF TRUST I-30 LAD TREAS	PLW	-0.8250	-0.3945
PIMCO ETF TR 15YR US TRS FD	TRSY	-0.8161	-0.1350
ISHARES TR 10+YR GOVT/CR	GLJ	-0.8093	-0.3125
ISHARES TR BARCLYS 10-20YR	TLH	-0.8092	-0.4319
VANGUARD BD INDEX FD INC LONG TERM BOND	BLV	-0.8009	-0.3009
PIMCO ETF TR 7-15 YR US TRS	TENZ	-0.7660	-0.4235
DIREXION SHS ETF TR 7 10YR TRES BU	TYD	-0.7629	-0.3986

Source: MacroRisk Analytics

# Correlation of ETFs to Dow Jones–UBS Grains Index

The following tables list the ETFs with the highest and lowest correlations with the Dow Jones–UBS Grains 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, the differences between these lists may be significant.

Correlations of ETFs to the Dow Jones - UBS Grains Index			
Top 15 Returns			
ETF Name	ETF Symbol	Returns Correlation	Values Correlation
TEUCRIUM COMMODITY TR CORN FD SHS	CORN	0.8965	0.8809
POWERSHS DB MULTI SECT COMM PS DB AGRICUL	DBA	0.7791	0.9150
GREENHAVEN CONT CMDTY INDEX UNIT BEN INT	GCC	0.6863	0.9305
PROSHARES TR II ULT DJ UBS COM	UCD	0.6148	0.9230
UNITED STS COMMODITY INDEX F COMM IDX FND	USCI	0.6005	0.8766
POWERSHARES DB CMDTY IDX TRA UNIT BEN INT	DBC	0.5900	0.8353
ISHARES S&P GSCI COMMODITY I UNIT BEN INT	GSG	0.5456	0.6106
UNITED STS 12 MONTH OIL FD L UNIT BEN INT	USL	0.4233	0.2500
POWERSHS DB MULTI SECT COMM DB ENERGY FUND	DBE	0.4217	0.5806
UNITED STS BRENT OIL FD LP UNIT	BNO	0.4216	0.0709
POWERSHS DB MULTI SECT COMM DB OIL FUND	DBO	0.4173	0.2858
UNITED STATES OIL FUND LP UNITS	USO	0.4157	0.2162
PROSHARES TR II ULT DJ UBS CRU	UCO	0.4144	0.4071
GLOBAL X FDS SILVER MNR ETF	SIL	0.3910	0.7504
TR/JEFF CRB WILDCATTERS ENER EQUITY INDEX	WCAT	0.3903	0.7051

Correlations of ETFs to the Dow Jones - UBS Grains Index			
Bottom 15 Returns			
MSCI Index	ETF Symbol	Returns Correlation	Values Correlation
PROSHARES TR II ULSHT DJ UBS C	CMD	-0.6335	-0.9241
UNITED STS SHORT OIL FD LP UNITS	DNO	-0.4050	0.1568
PROSHARES TR FTSE CHINA 25	YXI	-0.3480	-0.2753
DIREXION SHS ETF TR DLY ENRGY BEAR3	ERY	-0.3423	0.3715
PROSHARES TR ULTSHT OIL NEW	DUG	-0.3403	0.2663
PROSHARES TR PSHS SHT OIL&G	DDG	-0.3381	0.1148
PROSHARES TR ULTSHT CHINA 2	FXP	-0.3370	-0.1075
PROSHARES TR II SHRT SILV NEW	ZSL	-0.3291	0.4234
PROSHARES TR SHT MSCI NEW	EEV	-0.3219	-0.1720
DIREXION SHS ETF TR DLY EM BR3X NEW	EDZ	-0.3215	0.0026
DIREXION SHS ETF TR NAT GS BEAR 3X	GASK	-0.3180	-0.0901
PROSHARES TR BASIC MAT NEW	SMN	-0.3159	-0.0449
DIREXION SHS ETF TR LATN AM BEAR3X	LHB	-0.3095	0.0788
PROSHARES TR ULSH MSCI BRZL	BZQ	-0.3060	-0.2100
PROSHARES TR SHT BASIC MAT	SBM	-0.2996	-0.2283

The highest **returns**-correlations with the Grains Index are with other commodities and energy funds. On the other hand, the Grains Index trend has the greatest **values**-correlation with commodities, precious metals, and several different currencies.

The lowest **returns**-correlations are mainly the shorts of China, energy, Brazil, and basic materials. The lowest **values**-correlations are primarily with bonds.

Correlations of ETFs to the Dow Jones - UBS Grains Index			
Top 15 Values			
MSCI Index	ETF Symbol	Values Correlation	Returns Correlation
GREENHAVEN CONT CMDTY INDEX UNIT BEN INT	GCC	0.9305	0.6863
PROSHARES TR II ULT DJ UBS COM	UCD	0.9230	0.6148
POWERSHS DB MULTI SECT COMM PS DB AGRICUL	DBA	0.9150	0.7791
ETFS PLATINUM TR SH BEN INT	PPLT	0.8862	0.3285
TEUCRIUM COMMODITY TR CORN FD SHS	CORN	0.8809	0.8965
UNITED STS COMMODITY INDEX F COMM IDX FND	USCI	0.8766	0.6005
ETFS WHITE METALS BASKET TR PHY WM BSK SHS	WITE	0.8694	0.3555
MARKET VECTORS ETF TR JR GOLD MINERS	GDXX	0.8690	0.3150
GLOBAL X FDS GLB X GLD EXPL	GLDX	0.8643	0.3320
CURRENCYSHS BRIT POUND STER BRIT POUND STE	FXB	0.8585	0.2547
PROSHARES TR II ULTRA SILVER	AGQ	0.8584	0.3276
POWERSHS DB MULTI SECT COMM DB BASE METALS	DBB	0.8557	0.2928
CURRENCYSHARES SWEDISH KRONA SWEDISH KRONA	FXS	0.8529	0.2525
WISDOMTREE TRUST EURO DEBT FUND	EU	0.8486	0.0546
WISDOMTREE TRUST STH AFRIC RAND	SZR	0.8483	0.1994

Correlations of ETFs to the Dow Jones - UBS Grains Index			
Bottom 15 Values			
MSCI Index	ETF Symbol	Values Correlation	Returns Correlation
PROSHARES TR II ULSHT DJ UBS C	CMD	-0.9241	-0.6335
PIMCO ETF TR 25YR+ ZERO U S	ZROZ	-0.8388	-0.1687
VANGUARD WORLD FD EXTENDED DUR	EDV	-0.8353	-0.1717
ISHARES TR BARCLYS 20+ YR	TLT	-0.8236	-0.1682
PROSHARES TR ULTRA 20YR TRE	UBT	-0.8230	-0.1706
DIREXION SHS ETF TR 20YR TRES BULL	TMF	-0.8204	-0.1683
SPDR SERIES TRUST BRCLYS LG TRS	TLO	-0.8150	-0.1722
VANGUARD SCOTTSDALE FDS LONG-TERM GOV	VGLT	-0.8136	-0.1747
POWERSHARES GLOBAL ETF TRUST WK VRDO TX FR	PVI	-0.8058	-0.0560
POWERSHARES GLOBAL ETF TRUST I-30 LAD TREAS	PLW	-0.8008	-0.1797
ISHARES TR 10+YR GOVTF/CR	GLJ	-0.7989	-0.1129
VANGUARD BD INDEX FD INC LONG TERM BOND	BLV	-0.7962	-0.1422
PROSHARES TR II ULTRASHRT EURO	EUO	-0.7917	-0.2048
PIMCO ETF TR 15YR US TRS FD	TRSY	-0.7914	-0.0227
ISHARES TR BARCLYS GOVTF CR	GBF	-0.7828	-0.0680

Source: MacroRisk Analytics

# Correlation of S&P 1500 to the ISM Purchasing Managers Index

The following tables list the S&P 1500 stocks with the highest and lowest correlations with the ISM Purchasing Managers 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 stocks and those on the previous tables, the differences between these lists may be significant.

Correlations of S&P 1500 Stocks to the ISM Purchasing Managers Index			
Top 15 Returns			
Company Name	Ticker	Returns Correlation	Values Correlation
DREAMWORKS ANIMATION SKG INC	DWA	0.1819	0.9040
TELETECH HOLDINGS INC	TTEC	0.1428	0.6781
PAPA JOHNS INTL INC	PZZA	0.1132	-0.2257
HAVERTY FURNITURE INC	HVT	0.1120	0.3804
SCRIPPS E W CO OHIO	SSP	0.1110	0.5543
SCIENTIFIC GAMES CORP	SGMS	0.1103	0.2295
PATTERSON COMPANIES INC	PDCO	0.1045	0.7724
TW TELECOM INC	TWTC	0.1009	0.5037
PEETS COFFEE & TEA INC	PEET	0.0919	-0.6030
CROWN CASTLE INTL CORP	CCI	0.0867	-0.1427
NETAPP INC	NTAP	0.0857	0.7340
AUTOZONE INC	AZO	0.0854	-0.5427
GAMESTOP CORP NEW	GME	0.0818	0.5276
ZIMMER HLDGS INC	ZMH	0.0809	0.6914
GENESCO INC	GCO	0.0807	-0.5838

Correlations of S&P 1500 Stocks to the ISM Purchasing Managers Index			
Bottom 15 Returns			
Company Name	Ticker	Returns Correlation	Values Correlation
CENTRAL VT PUB SVC CORP	CV	-0.8340	-0.9063
AGILYSYS INC	AGYS	-0.4775	-0.7780
ASHLAND INC NEW	ASH	-0.1943	0.3949
NASH FINCH CO	NAFC	-0.1189	0.7721
GENERAL DYNAMICS CORP	GD	-0.1127	0.5719
APPLE INC	AAPL	-0.1037	-0.4020
COPART INC	CPRT	-0.1029	0.1160
POLARIS INDS INC	PII	-0.1007	-0.4224
WASTE CONNECTIONS INC	WCN	-0.0998	-0.6316
EZCORP INC	EZPW	-0.0967	0.2294
GULF ISLAND FABRICATION INC	GIFI	-0.0960	0.4704
FEDERAL REALTY INVTR	FRT	-0.0943	-0.3213
DST SYS INC DEL	DST	-0.0928	0.2907
ZALE CORP NEW	ZLC	-0.0927	0.2067
NOVATEL WIRELESS INC	NVTL	-0.0907	0.7691

The **returns** correlation between the PMI and the S&P 1500 are similar in magnitude to those with the ETFs, but are not quite as large in magnitude. The highest is with Dreamworks (+18%), but the top 15 correlations also includes such consumer oriented stocks as Papa Johns, Peets Coffee, Autozone, Gamestop, and Genesco. The negatively correlated stocks relative to the PMI **returns** include a fairly random mix of stocks including Apple, General Dynamics, Zale Corp, and Novatel. The positively **values**-correlated stocks include health, technology, and business products stocks. The negatively **values**-correlated stocks include resources, pharmaceuticals, McDonalds, and Dollar Tree.

Correlations of S&P 1500 Stocks to the ISM Purchasing Managers Index			
Top 15 Values			
Company Name	Ticker	Values Correlation	Returns Correlation
PALOMAR MED TECHNOLOGIES INC	PMTI	0.9376	0.0185
JUNIPER NETWORKS INC	JNPR	0.9276	0.0502
CIENA CORP	CIEN	0.9254	0.0040
CERADYNE INC	CRDN	0.9158	0.0302
TTM TECHNOLOGIES INC	TTMI	0.9134	0.0493
SEALED AIR CORP NEW	SEE	0.9092	0.0336
INTERNATIONAL RECTIFIER CORP	IRF	0.9091	0.0368
DREAMWORKS ANIMATION SKG INC	DWA	0.9040	0.1819
COLDWATER CREEK INC	CWTR	0.9038	0.0287
AVERY DENNISON CORP	AVY	0.9020	-0.0226
PITNEY BOWES INC	PBI	0.9007	0.0065
RUBICON TECHNOLOGY INC	RBCN	0.9001	0.0517
GENTIVA HEALTH SERVICES INC	GTIV	0.8995	0.0105
AEGION CORP	AEGN	0.8990	0.0444
UNITED THERAPEUTICS CORP DEL	UTHR	0.8932	0.0403

Correlations of S&P 1500 Stocks to the ISM Purchasing Managers Index			
Bottom 15 Values			
Company Name	Ticker	Values Correlation	Returns Correlation
CENTRAL VT PUB SVC CORP	CV	-0.9063	-0.8340
AGILYSYS INC	AGYS	-0.7780	-0.4775
CABOT OIL & GAS CORP	COG	-0.7334	0.0023
DOMINION RES INC VA NEW	D	-0.7329	-0.0130
QUESTOR PHARMACEUTICALS INC	QCOR	-0.7300	0.0074
MOTOROLA MOBILITY HLDGS INC	MMI	-0.6997	-0.0090
CONSOLIDATED EDISON INC	ED	-0.6834	-0.0091
QUESTAR CORP	STR	-0.6677	-0.0189
MCDONALDS CORP	MCD	-0.6657	0.0253
DOLLAR TREE INC	DLTR	-0.6551	-0.0614
CENTERPOINT ENERGY INC	CNP	-0.6506	-0.0780
SCHWEITZER-MAUDUIT INTL INC	SWM	-0.6491	0.0042
EL PASO ELEC CO	EE	-0.6443	-0.0301
FIRSTENERGY CORP	FE	-0.6379	-0.0051
BLYTH INC	BTH	-0.6320	0.0054

Source: MacroRisk Analytics

# Correlation of S&P 1500 to Dow Jones–UBS Copper Index

The following tables list the S&P 1500 stocks with the highest and lowest correlations with the Dow Jones–UBS Copper 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 stocks and those on the previous tables, the differences between these lists may be significant.

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Copper Index			
Top 15 Returns			
Company Name	Ticker	Returns Correlation	Values Correlation
FREEMPORT-MCMORAN COPPER & GO	FCX	0.6655	0.9316
STONE ENERGY CORP	SGY	0.6015	0.6703
APACHE CORP	APA	0.5996	0.8732
MANPOWERGROUP INC	MAN	0.5823	0.7637
DENBURY RES INC	DNR	0.5767	0.7163
ASTEC INDS INC	ASTE	0.5762	0.6427
OIL STS INTL INC	OIS	0.5753	0.4283
RELIANCE STEEL & ALUMINUM CO	RS	0.5748	0.3573
DU PONT E I DE NEMOURS & CO	DD	0.5737	0.7214
CENTURY ALUM CO	CENX	0.5724	0.7853
ANIXTER INTL INC	AXE	0.5693	0.5204
SCHLUMBERGER LTD	SLB	0.5692	0.9058
CARPENTER TECHNOLOGY CORP	CRS	0.5688	-0.0340
CATERPILLAR INC DEL	CAT	0.5679	0.5015
ALCOA INC	AA	0.5678	0.8542

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Copper Index			
Bottom 15 Returns			
Company Name	Ticker	Returns Correlation	Values Correlation
GOODRICH CORP	GR	-0.0196	-0.7873
CENTRAL VT PUB SVC CORP	CV	0.0139	-0.4700
STANDARD REGISTER CO	SR	0.0552	0.5311
MOTOROLA MOBILITY HLDGS INC	MMI	0.0623	-0.7822
MIDAS GROUP INC	MDS	0.0962	-0.6166
DOLLAR TREE INC	DLTR	0.1169	-0.6388
DIAMOND FOODS INC	DMND	0.1169	0.4371
ALLEGIANANT TRAVEL CO	ALGT	0.1201	-0.6498
CLOROX CO DEL	CLX	0.1316	0.4743
VERTEX PHARMACEUTICALS INC	VRTX	0.1318	0.7081
HOT TOPIC INC	HOTT	0.1429	-0.1540
HIGHER ONE HLDGS INC	ONE	0.1467	-0.1144
BARNES & NOBLE INC	BKS	0.1513	0.1674
DR PEPPER SNAPPLE GROUP INC	DPS	0.1551	0.2383
RALCORP HLDGS INC NEW	RAH	0.1592	0.0670

It is not surprising that returns of copper and energy stocks are the most correlated with the Copper Index's **returns**, or that chemical and heavy equipment are on the list as well. Highly correlated, though not one of the usual suspects, is ManpowerGroup, Inc.

The lowest **returns**-correlations are with a grab-bag of consumer oriented companies including tires, soft-drinks, foods, billing services, and books. The highest **values**-correlations include resources and energy companies, as well as a diverse group of media-related stocks (e.g., Boston Scientific, Valassis Communications, and Netflix). The lowest correlations once again include pharmaceuticals and consumer oriented companies.

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Copper Index			
Top 15 Values			
Company Name	Ticker	Values Correlation	Returns Correlation
FREEMPORT-MCMORAN COPPER & GO	FCX	0.9316	0.6655
AAR CORP	AIR	0.9225	0.4769
CLIFFS NATURAL RESOURCES INC	CLF	0.9170	0.5109
SCHLUMBERGER LTD	SLB	0.9058	0.5692
VALASSIS COMMUNICATIONS INC	VCI	0.9027	0.4177
BOSTON SCIENTIFIC CORP	BSX	0.8991	0.3967
MACK CALI RLTY CORP	CLI	0.8970	0.4763
HALLIBURTON CO	HAL	0.8945	0.5180
SUPERIOR ENERGY SVCS INC	SPN	0.8938	0.4527
WADDELL & REED FINL INC	WDR	0.8904	0.5626
LEUCADIA NATL CORP	LUK	0.8874	0.4800
BADGER METER INC	BMI	0.8862	0.4826
ESTERLINE TECHNOLOGIES CORP	ESL	0.8861	0.4346
NETFLIX INC	NFLX	0.8846	0.1609
MATERION CORP	MTRN	0.8844	0.5304

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Copper Index			
Bottom 15 Values			
Company Name	Ticker	Values Correlation	Returns Correlation
GOODRICH CORP	GR	-0.7873	-0.0196
MOTOROLA MOBILITY HLDGS INC	MMI	-0.7822	0.0623
CONSOLIDATED EDISON INC	ED	-0.7724	0.2706
BRISTOL MYERS SQUIBB CO	BMY	-0.7500	0.2643
DOMINION RES INC VA NEW	D	-0.7432	0.2624
PROGRESS ENERGY INC	PGN	-0.7278	0.2876
STAMPS COM INC	STMP	-0.7235	0.1914
PPL CORP	PPL	-0.7224	0.2614
SOUTHERN CO	SO	-0.7155	0.2154
QUESTCOR PHARMACEUTICALS INC	QCOR	-0.7111	0.1872
KIMBERLY CLARK CORP	KMB	-0.7101	0.2383
AMEREN CORP	AEE	-0.6934	0.3646
DUKE ENERGY CORP NEW	DUK	-0.6911	0.3059
TREEHOUSE FOODS INC	THS	-0.6887	0.1945
RLI CORP	RLI	-0.6818	0.3248

Source: MacroRisk Analytics

## Correlation of S&P 1500 to Dow Jones–UBS Grains Index

The following tables list the S&P 1500 stocks with the highest and lowest correlations with the Dow Jones–UBS Grains 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 stocks and those on the previous tables, the differences between these lists may be significant.

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Grains Index			
Top 15 Returns			
Company Name	Ticker	Returns Correlation	Values Correlation
CF INDS HLDGS INC	CF	0.4631	-0.1207
MOSAIC CO NEW	MOS	0.4106	0.9098
HELMERICH & PAYNE INC	HP	0.3691	0.3926
SM ENERGY CO	SM	0.3554	-0.2247
HALLIBURTON CO	HAL	0.3518	0.7686
INTREPID POTASH INC	IPI	0.3500	0.8711
UNIT CORP	UNT	0.3490	0.6003
PATTERSON UTI ENERGY INC	PTEN	0.3434	0.7485
BAKER HUGHES INC	BHI	0.3411	0.7627
OCEANEERING INTL INC	OII	0.3411	-0.4424
SCHLUMBERGER LTD	SLB	0.3370	0.6699
DIAMOND OFFSHORE DRILLING IN	DO	0.3346	0.5963
NABORS INDUSTRIES LTD	NBR	0.3281	0.7055
DEERE & CO	DE	0.3277	0.3748
HELIUM ENERGY SOLUTIONS GRP I	HLX	0.3273	0.0166

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Grains Index			
Bottom 15 Returns			
Company Name	Ticker	Returns Correlation	Values Correlation
SANDERSON FARMS INC	SAFM	-0.0677	-0.7216
GOODRICH CORP	GR	-0.0562	-0.8981
HOT TOPIC INC	HOTT	-0.0422	-0.2212
CENTRAL VT PUB SVC CORP	CV	-0.0366	-0.6100
NUTRI SYS INC NEW	NTRI	-0.0234	0.3968
MIDAS GROUP INC	MDS	-0.0227	-0.5819
COOPER COS INC	COO	-0.0052	0.3196
AUTOZONE INC	AZO	-0.0008	-0.6786
TREEHOUSE FOODS INC	THS	0.0114	-0.5766
LHC GROUP INC	LHCG	0.0127	0.8389
TYSON FOODS INC	TSN	0.0190	-0.4797
STAPLES INC	SPLS	0.0230	0.4851
WALGREEN CO	WAG	0.0233	0.7289
BARNES & NOBLE INC	BKS	0.0234	-0.0002
ENSIGN GROUP INC	ENSG	0.0253	0.4112

The Grains Index has high **returns**-correlations with energy and drilling companies, and highest **values**-correlations with potash, healthcare, and Netflix.

The lowest **returns**-correlations are with automotive-related, foods, and books while the lowest **values**-correlations include energy companies, pharmaceuticals and convenience food stores (e.g., McDonalds and Casey's General Stores).

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Grains Index			
Top 15 Values			
Company Name	Ticker	Values Correlation	Returns Correlation
MOSAIC CO NEW	MOS	0.9098	0.4106
INTREPID POTASH INC	IPI	0.8711	0.3500
NETFLIX INC	NFLX	0.8570	0.1354
HOSPIRA INC	HSP	0.8546	0.0920
CHESAPEAKE ENERGY CORP	CHK	0.8518	0.2381
UNITED CMNTY BKS BLAIRSVLE G	UCBI	0.8510	0.1475
CREE INC	CREE	0.8416	0.2252
GEO GROUP INC	GEO	0.8401	0.2684
LHC GROUP INC	LHCG	0.8389	0.0127
FIRST SOLAR INC	FSLR	0.8359	0.1528
ST JUDE MED INC	STJ	0.8355	0.1767
HEALTHWAYS INC	HWAY	0.8337	0.1193
VEECO INSTRS INC DEL	VECO	0.8326	0.1978
E TRADE FINANCIAL CORP	ETFC	0.8297	0.1601
BOSTON SCIENTIFIC CORP	BSX	0.8241	0.0926

Correlations of S&P 1500 Stocks to the Dow Jones - UBS Grains Index			
Bottom 15 Values			
Company Name	Ticker	Values Correlation	Returns Correlation
GOODRICH CORP	GR	-0.8981	-0.0562
RLI CORP	RLI	-0.8491	0.0977
HI-TECH PHARMACAL INC	HITK	-0.8379	0.0900
PROGRESS ENERGY INC	PGN	-0.8374	0.1086
QUESTCOR PHARMACEUTICALS INC	QCOR	-0.8362	0.0589
BRISTOL MYERS SQUIBB CO	BMJ	-0.8342	0.1080
SOUTHERN CO	SO	-0.8181	0.1060
DUKE ENERGY CORP NEW	DUK	-0.8151	0.1068
STAMPS COM INC	STMP	-0.8121	0.0747
CONSOLIDATED EDISON INC	ED	-0.8094	0.0939
ALLEGIANTRAVEL CO	ALGT	-0.8021	0.0507
DOMINION RES INC VA NEW	D	-0.8015	0.1399
PNM RES INC	PNM	-0.7961	0.1284
CASEYS GEN STORES INC	CASY	-0.7925	0.1355
MCDONALDS CORP	MCD	-0.7891	0.1415

Source: MacroRisk Analytics

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