The past year has witnessed much economic turmoil. This turmoil is highlighted by several significant market shaking events, including the Japanese earthquake and tsunami, the U.S. debt ceiling crisis, the ongoing European sovereign debt crisis as well as the aftermath and recovery from the subprime mortgage crisis.

As such, there is much interest in taking risk exposures based on the prospects, or lack of, economic flare-ups. Sometimes, these types of positions are whimsically referred to as “risk-on, risk-off” transactions with a nod to the Karate Kid film franchise.

I.e., when economic tensions decline, you might accept more risk – or turn your “risk-on” – by taking an aggressive market position. When economic tensions are expected to flare-up, reduce risk – or turn your “risk-off” – by taking a defensive market posture.

Economic tensions dissipating	➔	**Turn “Risk-On” with aggressive posture**
Economic tensions rising	➔	**Turn “Risk-Off” with defensive posture**

Risk-on, risk-off strategies may be as straightforward as taking outright positions in markets such as the S&P 500; gold; currencies; or, U.S. Treasuries. During periods of visible economic distress, these markets often become very responsive to the same concerns and exhibit high correlation. All of these outright positions may, of course, be pursued using CME Group products. But this inquiry focuses on some more elaborate risk-on, risk-off measures including the following.

1. Australian dollar/Japanese yen (AUD/JPY) cross-rate or cross-currency transactions;
2. Euro vs. U.S. dollar (EUR/USD), or Euro vs. Swiss franc (EUR/CHF) currency pairings;
3. The Gold vs. S&P 500 spread; and
4. “Swap spreads” or credit spreads between interest rate swap (IRS) and Treasury rates.

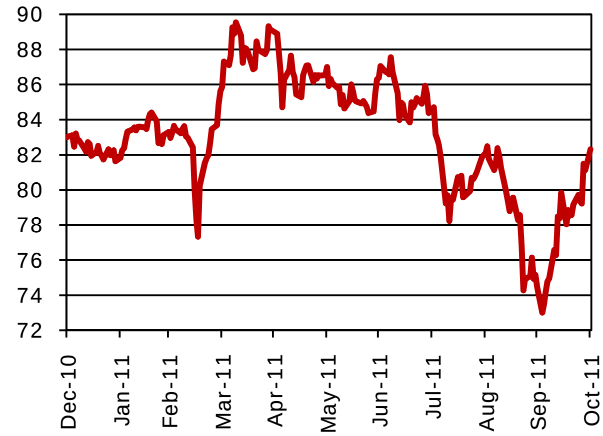
All of these transactions may likewise be traded using CME Group products.

Australian Dollar/Japanese Yen – The spread between the Australian dollar and Japanese yen has gained favor as a leading measure of the macro-economic “fear factor.”

Note that the Australian dollar (AUD) tends to benefit when the price of raw commodities advance. Australia is a commodity-rich nation and commodity prices including energy products, foodstuffs, metals, minerals, etc., have advanced tremendously within the past decade on demand from emerging market nations, most notably including China. Thus, prospects for economic growth, particularly in emerging economies, tend to support the AUD.

On the other hand, Japan has emerged, in the post-subprime mortgage crisis era, as a reasonably stolid, albeit perhaps an unexciting economy. In particular, the Japanese yen (JPY) advanced sharply in the post financial crisis era (since 2008) as so-called “carry” trades have been unwound on a large scale. [1] Thus, the JPY is regarded as a relatively safe haven in Asia.

AUD / JPY Exchange Rate



The spread between the AUD and JPY is widely followed as a popular risk-on, risk-off mechanism. In particular, the AUD/JPY “cross-rate” currency pairing is offered as a CME Group futures contract. The contract is based upon 200,000 AUD and is quoted in Japanese yen per Australian dollars.

Thus, if economic tensions are dissipating and you wish to adopt an aggressive risk-on position then buy AUD/JPY futures. Or, if economic tensions are

[1] A “carry” trade involves the purchase of a currency offering high interest rates, coupled with the sale of a currency offering low interest rates. The concept is essentially to borrow at low rates and leverage those funds by investing at relatively higher rates. Prior to the subprime mortgage crisis, which was at its height in 2008, the Japanese yen was the favored short in carry trades placed by asset managers and hedge funds. Subsequent to the crisis, however, asset managers and hedge funds generally unwound those carry trades, covering their JPY short positions and sending the JPY much higher. At the same time, rates in other developed nations, notably including the U.S., fell to levels comparable to those in Japan. Thus, the JPY fell out of favor as the preferred short in carry trades.

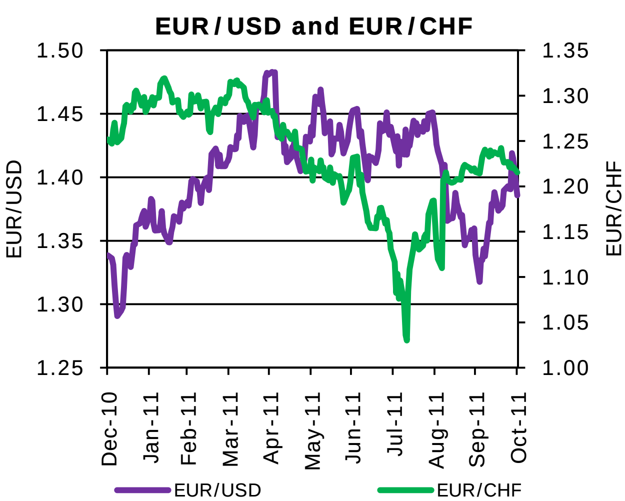
rising and you wish to adopt a more defensive risk-off position, then sell AUD/JPY futures.

"Risk-On" → Buy AUD/JPY futures
"Risk-Off" → Sell AUD/JPY futures

Note that if you buy AUD/JPY futures, you are effectively taking a long position in the Australian dollar and a short position in the Japanese yen. If you sell AUD/JPY futures, you are effectively taking a short position in the Australian dollar and a long position in the yen.

EUR/USD & EUR/CHF – To the extent that much of the economic stress over the past year has been occasioned by the European sovereign debt crisis, it is natural to ask what effect this has exerted upon the Eurozone currency in the form of the Euro (EUR). When "Eurostress" builds, that weighs on the Euro and traders seek refuge in other currencies not so impacted including the U.S. dollar (USD) and the Swiss franc (CHF). When Eurostress eases, then the Euro may rebound relative to the USD, CHF and other currencies.

This is evident by examining a comparative chart of the EUR/USD and EUR/CHF currency pairings. Both of these currency pairs declined in the summer to early fall as the European sovereign debt crisis reached a fever pitch. But they declined at very uneven rates. In particular, the EUR/USD rate held reasonably firm until early August. This firmness might be attributed to weakness in the U.S. dollar to the extent that the debt ceiling crisis weighed on the USD.

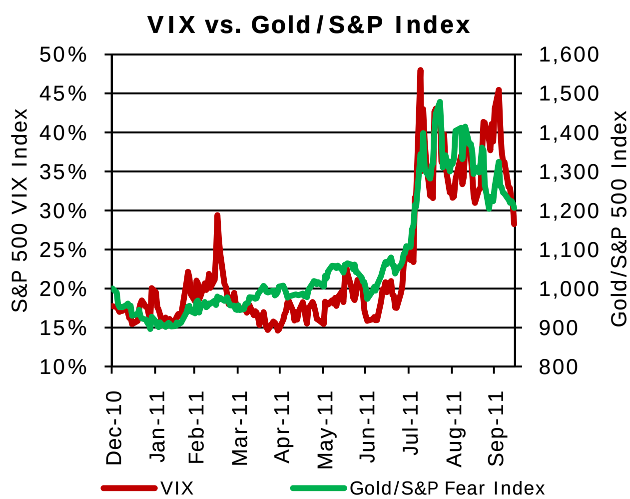


Note that CME Group offers a EUR/USD contract which calls for the delivery of 125,000 Euros vs. an equivalent value in USD. This contract is quoted in dollars per Euros. Similarly, CME Group offers a EUR/CHF contract based upon a unit of 125,000 Euros. This contract is quoted in Swiss francs per Euros.

"Risk-On" → Buy EUR/USD futures *or* Buy EUR/CHF futures
"Risk-Off" → Sell EUR/USD futures *or* Sell EUR/CHF futures

Thus, one might take a more aggressive risk-on posture when economic tensions are reduced by buying the EUR/USD or the EUR/CHF futures contracts. Or, adopt a more defensive risk-off posture by selling the EUR/USD or EUR/CHF futures contracts. Note that the purchase of these contracts implies a long position in the Euro and a short position in either the USD or CHF. The sale of these futures contracts implies a short position in the Euro and a long position in either the USD or CHF.

Gold/S&P 500 – Yet another interesting risk-on, risk-off trade may be identified as the spread of gold vs. the S&P 500. Our graphic depicts the gold/S&P spread as the ratio of the price of gold, quoted in U.S. dollars per one fine troy ounce, over the index value of the S&P 500. The quote is further normalized to an arbitrary value of 1,000.00 as of December 31, 2010. As such, this quote effective represents a long gold position vs. a short S&P 500 position.

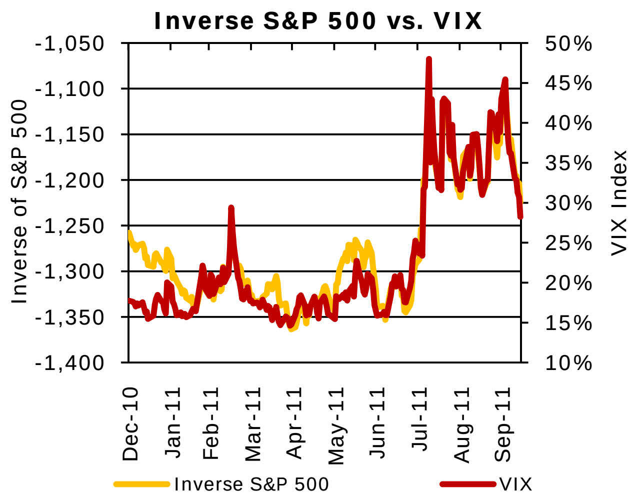


We compare the gold/S&P spread to the value of the S&P 500 VIX or S&P 500 Volatility Index. [2] Note

[2] The VIX represents an amalgam of implied volatilities (IVs) gleaned from Chicago Board Option Exchange (CBOE) options based on the Standard & Poor's 500. The VIX is widely regarded as a convenient measure of

that both the gold/S&P and VIX indexes tend to move closely in tandem. Both measures spiked in response to economic flare-ups including the Japanese earthquake and tsunami early in 2011, as well as heightened concerns about European instability by mid-year.

This gives us further occasion to note the high correlation between the S&P 500 and the VIX. Actually, the two instruments are negatively or inversely correlated (*i.e.,* equity market volatility tends to increase when stocks decline; and, tends to fall when stocks advance).



This inverse relationship is intuitive to the extent that stocks tend to rally slowly and steadily. Consider that millions of domestic employees participate in 401K retirement funds. Thus, every payday, a proportion of their earnings are directed to investment accounts, largely stock mutual funds. As such, investment is slowly and steadily directed into equities.

But when an event occurs that causes investors to pull back from equity investments, the withdrawals tend to be swift, sudden and of large magnitude. *I.e.,* stocks tend to rally slowly and steadily but decline swiftly and suddenly, with the obvious inverse impact upon volatility as measured by the VIX.

Note that the gold/S&P 500 spread may be pursued with the use of CME Group contracts. The gold futures contract calls for the delivery of 100 fine troy ounces of gold and is quoted in USD per 1 oz. E-mini S&P 500 futures are cash settled based upon a value of $50 x Index.

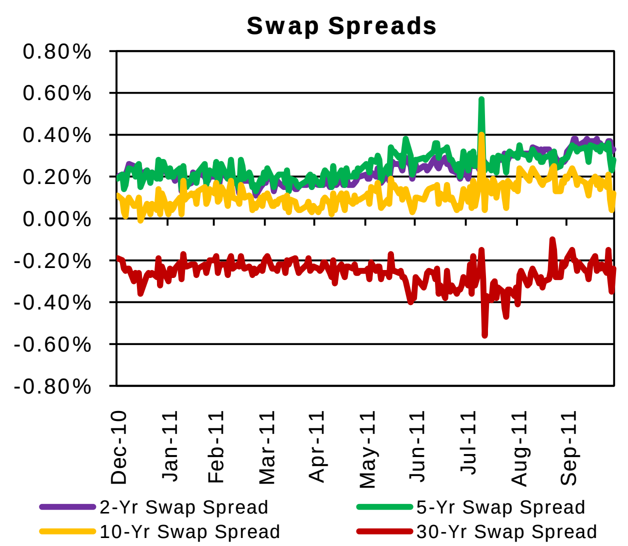
"Risk-On" ➔ Sell Gold / S&P 500 spread

"Risk-Off" ➔ Buy Gold / S&P 500 spread

If economic tensions are declining and you wanted to adopt an aggressive risk-on posture, sell the gold/S&P spread, i.e., sell gold and buy S&P 500 futures. If economic tensions are rising and you wanted to adopt a defensive risk-off posture, buy the gold/S&P spread, i.e., buy gold and sell S&P 500 futures. Because these two contracts are very different, one might place the spread in a ratio represented by relative monetary values of the two futures.

Swap Spreads – Finally, let us consider so-called "swap spreads" or the spread between the fixed interest rate associated with over-the-counter (OTC) interest rate swaps (IRS) vs. U.S. Treasury securities of similar maturity. This spread may be considered a form of "credit spread" to the extent that it compares private vs. public credit risks.

Our graphic depicts the swap spread using data from the U.S. Treasury Department's daily H15 report. Thus, we are comparing 2-, 5-, 10- and 30-year LIBOR-based interest rate swap instruments to "Constant Maturity Treasury" (CMT) yields. These spreads tend to advance and decline as a function of credit conditions and the macroeconomic "fear factor."



Note that the spread has actually turned negative in the 30-year sector of the yield curve. The explanation lies, not in risk-on, risk-off relative

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volatility in the domestic equity markets and, as such, represents a "fear factor index" in its own right.

factors, but more so in simple supply and demand considerations.

In particular, so-called liability-driven investment (LDI) managers have increasingly turned to long-term IRS as an alternative to 30-year Treasury investment. This is driven, in large part, by limited supply relative to demand in the very long-term segment of the yield curve. This demand is redirected into IRS and has resulted in a negative 30-year swap spread.

Note that CME Group offers 5-, 7-, 10- and 30-year interest rate swap futures contracts. We further offer standard Treasury covering the 2-, 3-, 5-, 10- and 30-year sectors of the curve; as well as on-the-run (OTR) Treasury futures covering the 2-, 5- and 10-year portions of the curve. Thus, one may construct a weighted spread to take advantage of risk-on, risk-off conditions.

If you believed that economic tensions are dissipating and wanted to adopt a risk-on position, then buy Swap/Treasury spreads. If you believed that economic tensions might flare up, then adopt a risk-off position by selling Swap/Treasury spreads.

"Risk-On" ➔ **Buy Swap / Treasury futures spreads**

"Risk-Off" ➔ **Sell Swap / Treasury futures spreads**

Note that by buying a Swap/Treasury spread, you are buying swap futures and selling Treasury futures in anticipation that the yield spread between the two instruments might compress. By selling a Swap/Treasury spread, you are selling swap futures and buying Treasury futures in anticipation that the yield spread might expand.

Concluding Note – The concept of "risk-on, risk-off" trading has won increasing interest and popularity in recent years. There are, of course, many ways to construct transactions that are sensitive to these macroeconomic conditions.

CME Group offers various products and spread products in the context of our currency, stock index, commodity and interest rate product lines that may be used to take position oneself with an appropriate risk exposure to advantage oneself from anticipated conditions.

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