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# INTERMARKET ANALYSIS

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## Introduction:

The majority of traders and analysts use intermarket analysis to predict fluctuations of the financial markets. Signs of inflation and interest rate trends impact usually the future market first, which determine the direction of the stock market. Fluctuations of the dollar (dollar index) tell us about the strength or weakness of the American economy, which also has a major impact on corporate earnings, and therefore on the stock prices. But the stock market is divided into sectors and industry groups, so the degree of the impact change form sector to sector. There are also other factors that determine the size of the impact such as the short-term interest rate, the yield on the S&P 500, and the period until the futures contract expire and so on.

Intermarket analysis is not a method that will give you specific buy or sell signals. However, it does provide an excellent confirmation tool for trends and will warn of potential reversals.

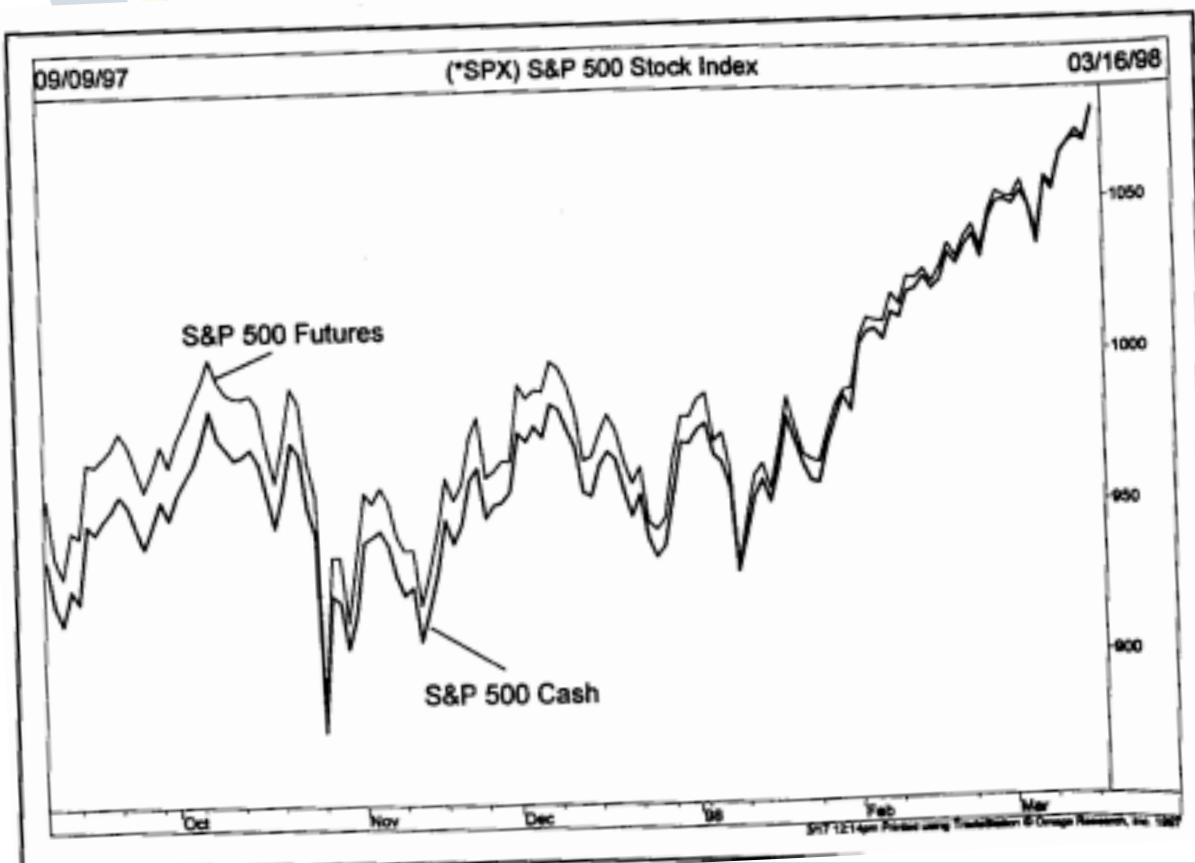
Intermarket analysis is a branch of technical analysis that examines the correlations between four major asset classes: stocks, bonds, commodities and currencies.

## 1. The link between futures and spot markets:

Futures contracts are financial derivatives that oblige the buyer to purchase some underlying asset (or the seller to sell that asset) at a predetermined price and date in the future, the price is derived from the underlying asset.

Although index futures are closely correlated to the underlying index, they are not identical. The index futures price must equal the underlying index value only at expiration. At any other time, the futures contract has a fair value relative to the index, which reflects the expected dividends forgone and the financing cost between the trade date and expiration. When interest rates are low, the dividend adjustment outweighs the financing cost, so fair value for index futures is typically lower than the index value.

The spread between the index futures and the cash index diminishes as the futures contract approaches the expiration date. Institutions calculate what the actual premium, called fair value, when the futures move above its fair value to the cash index by some amount, an arbitrage trade is automatically activated called program buying, when the futures are too high relative to the cash index, program traders sell the futures contracts.



## 2. The link between bonds and stocks:

The bond market is where investors go to trade (buy and sell) debt securities, prominently bonds, which may be issued by corporations or governments. The bond market is also known as the debt or the credit market. By buying a bond, credit, or debt security, you are lending money for a set period and charging interest—the same way a bank does to its debtors.

Bonds affect the stock market by competing with stocks. Bonds are safer than stocks, but they offer a lower return. As a result, when stocks go up in value, bonds go down, because stocks will offer high return.

Stocks do well when the economy is booming. When consumers are making more purchases, companies receive higher earnings thanks to higher demand, and investors feel confident. When the economy slows, consumers buy less, corporate profits fall, and stock prices decline. That's when investors prefer the regular interest payments guaranteed by bonds.



One of the best ways to beat inflation is to sell bonds and buy stocks when the economy is doing well.

Sometimes, both stocks and bonds can go up in value at the same time. This happens when there is too much money, or liquidity, chasing too few investments. It happens at

the top of the market. It could occur when some investors are optimistic and others are pessimistic.



There also are times when stocks and bonds both falls. That's when investors are in a panic and selling everything. During those times, gold prices often rise. Because of this, despite how it may seem at first glance, there is a solid relationship between bonds and the stock market. Otherwise, Bond yields represent the opportunity cost of investing in equities. For example, if the 10-year bond is yielding 7% per annum then the equity markets will be attractive only if it can earn well above 7%. In fact, equity being risky there will have to be a risk premium, first of all, to be even comparable. A stock is attractive only if the earnings yield is higher than the bond yield. Otherwise, why should one take the risk of taking in equities? It is quite interesting that the bond yields are an important determinant of equity valuations. the equity markets have normally moved negatively with bond yields. Because bond prices move in the opposite direction of interest rates, or yields. This is why when bond prices are rising, yields and/or interest rates are falling, which considered positive for stocks. In the opposite falling bond prices, yields and/or interest rate are raising, it's considered negative for stocks.

This relationship may not exactly hold in the very short run. But if you consider it over a period of 5-10 years, this relationship will be clearly visible.



You will be noticed in the example above (chart) that it's obvious to compare treasury bond futures with the S&P 500 cash index, they trend in the same direction. On a short-term basis, sudden changes in trend in the S&P 500 are often influenced by sudden changes in the treasury bond futures contract. On a longer basis, changes in the trend of the treasury bond contract often warn of similar turns in the S&P 500. In that sense bond futures can be viewed as a leading indicator for the stock market.

The intermarket relationships during a deflationary environment are largely the same except for one. Stocks and bonds are inversely correlated during a deflationary environment. This means stocks rise when bonds fall and vice versa.

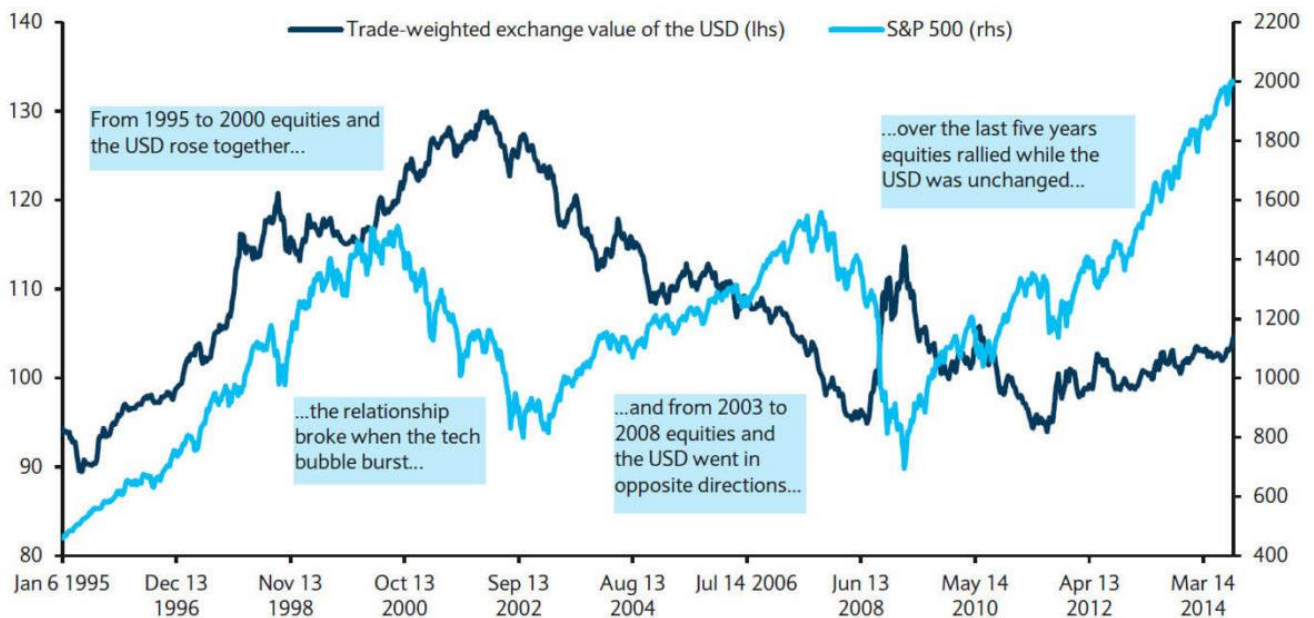


This graph shows perfectly the negative correlation between stocks and bonds, when investors are optimistic and the economy is doing well, bonds are falling people want higher return. In the contrast when the economy is struggling bonds prices goes up, investors want more to protect their wealth.

### 3. The link between stocks and currencies:

the main idea is that, when a domestic equity market rises, confidence in that specific country grows up as well, leading to an inflow of funds from foreign investors. which create a demand for the domestic currency, causing it to rally versus other foreign currencies, because the driver of equity market and the FX markets in a given country is the strength or the weakness of its economy. In contrast, when a domestic equity market performs terribly, confidence falters, causing investors to convert their invested funds back into their own local currencies.

The relationship between the U.S. dollar and the S&P 500 has varied



Source: S&P, Haver Analytics, Barclays Research

So when the country's economy is strong, both equities and the currencies rally, because they positively correlated with each other.



But there is no guarantee that the poor performance of the stock market will lead to the collapse of the general countries' performance. There are still more factors to be considered under this issue. But that doesn't mean the relationship is useless. You just have to know when the correlation is working (whether negative or positive) and when it's not. As we said earlier the correlation depend also on the economic cycle and the inflation environment (deflationary or inflationary environment).

Originally it was assumed that Nikkei stock market was a good reflection on the strength of the country. So, if the Nikkei stock market were to rally then this would lead to the yen strengthening and the USD/JPY dropping. Likewise, if the Nikkei were to drop then the USD/JPY price would rise due to a weakening yen.

#### 4. The link between stocks and commodities:

Commodities such as oil, wheat, iron and rubber have an important role in economics because of they are the main components of many common goods in our lives. Especially an increase or a decrease in the commodity prices affects all of the economies in the world.

Commodity prices are important for the economy because they directly affect the prices. Moreover, commodities have effects on stock market as they are used as financial instrument and because of the effect on profitability of the corporate business and its profits, because when prices are going up, corporate profits will be reduced which can affect its earnings and therefore its stocks' prices.

commodity and stock markets are very important for the investors, investment environment, economists, and economies. Consequently, commodities influence world economy by affecting prices in fact. These prices may be commodity prices or share prices. Therefore, there will be a shock –negative or positive- to stock market that drags to an expansion or a recession the economy.





As we can see in the graph, as long as commodities prices were going upward, stock prices couldn't go further, they stabilize. Therefore, when commodities prices hit an extreme level stock prices went down and commodities follow.

## 5. The link between bonds and commodities:

As commodity prices rise, the cost of goods moves upward. This increasing price action is inflationary, and interest rates also rise to reflect the growing inflation. and commodities' prices are considered to be a leading indicator of inflationary trends. This Expectations of inflation influence treasury bonds by affecting interest rates. As a result, commodity prices usually trend in the opposite direction of bond prices.

Studies of commodity prices since 1970 show that sudden upturns in commodity markets (signaling higher price inflation) have been associated with declines in treasury bond prices. The flip side of that relationship is that strong treasury bond gains have normally corresponded with falling commodity prices.



## 6. The link between commodities and the US dollar:

The US dollar has also an impact on commodity prices. When the dollar is rising that a noninflationary sign. And the gold is normally the most affected by the dollar. If you study their relationship over time, you will see that the prices of gold and the US dollar usually trend in opposite directions. A rising Dollar puts downward pressure on commodity prices because many commodities are priced in Dollars. So, when the dollar is going up, commodities, especially gold will go down.

The gold market, in turn usually acts as a leading indicator for other commodity markets. So, if you're analyzing the gold market, it's necessary to know what the dollar is doing. If you're studying the commodity price trend in general (using One of the better-known commodity price indexes), it's necessary to know what the gold market is doing. The fact the matter is that all four markets are linked- the dollar influences commodities, which influence bonds, which influence stocks.

To fully understand what's happening in the other three. Fortunately, that's easily done by simply looking at their respective price charts.



## 7. The link between Bonds and currencies:

Bond yields play a significant role in determining the direction of a currency. The difference between one country's bond yield and another country's bond yield, known as an interest rate differential, is more influential on the direction of a currency than the actual bond yield. The interest rate differential between two countries bond yields generally move in tandem with the corresponding currency pair.

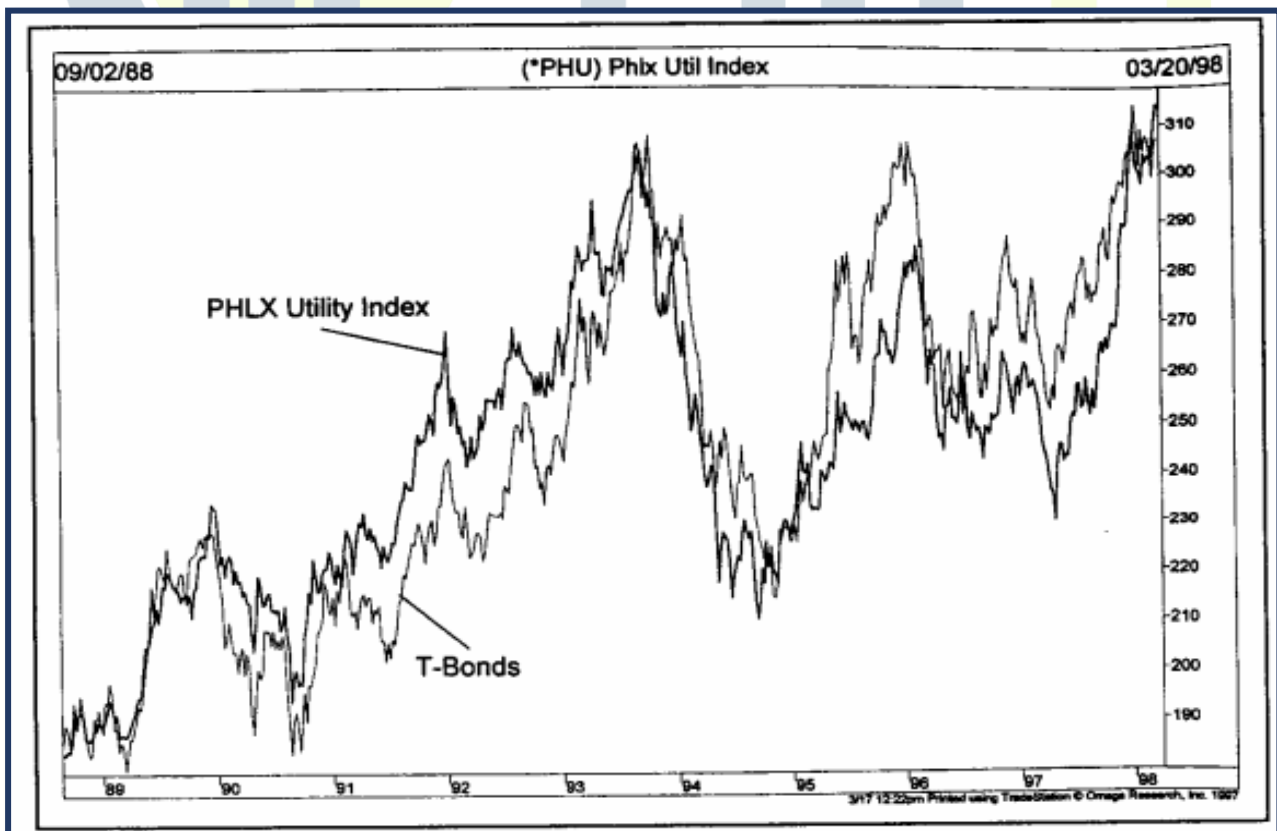
This phenomenon occurs because capital flows are attracted to higher yielding currencies. we can look to the recent past. After the burst of the tech bubble in 2000, traders went from seeking the highest possible returns to focusing on capital preservation. But since the U.S. was offering interest rates below 2% (and going even lower), many hedge funds and those who had access to the international markets went abroad in search of higher yields.<sup>1</sup> Australia, with the same risk factor as the U.S., offered interest rates in excess of 5%. As the rate of one currency increases relative to another, investors are attracted to the higher yielding currency. Additionally, the cost of owning the lower yielding currency increase as the bond yield differential moves in favor of the currency that is sold. For example, the cost to owning the Yen and selling the dollar will increase as US bond yields increase relative to Japanese bond yields, that to say that you have to pay back more of the dollars sold previously.

Bond yields also serve as an excellent indicator of the strength of a nation's stock market, which increases the demand for the nation's currency. For example, U.S. bond yields gauge the performance of the U.S. stock market, thereby reflecting the demand for the U.S. dollar. Demand for bonds usually increases when investors are concerned about the safety of their stock investments. This flight to safety drives bond prices higher and, by virtue of their inverse relationship, pushes bond yields down. As more and more investors move away from stocks and other high-risk investments, increased demand for "less-risky instruments" such as U.S. bonds and the safe-haven U.S. dollar pushes their prices higher.

## 8. Stock sectors and industry groups:

An understanding of these intermarket relationships also sheds light on the interaction between the various stock market sectors and industry groups. The stock market is divided into market sectors which are then subdivided into industry groups. These market categories are influenced by what’s happening on the intermarket scene. For example, when bonds are strong and commodities are weak, interest rate-sensitive stock groups-such as the utilities, financial stocks, and consumer staples, usually do well relative to the rest of the stock market. At the same time inflation-sensitive stock groups, like gold, energy, and cyclical stocks, usually underperform. When commodity markets are strong relative to bonds, the opposite is the case. By monitoring the relationship between treasury bond prices and commodity prices, you can determine which sectors or industry groups will do better at any given time.

for example, utility stocks, are closely linked to treasury bond prices. As a result, utility stocks can be used as leading indicators for treasury bonds, gold mining shares can be used as leading indicators for gold prices. Another example of the intermarket influence is the impact of the trend of oil prices on energy and airline stocks. Rising oil prices help energy shares but hurt airlines. Falling oil prices have the opposite effect.



## Conclusion :

Intermarket analysis is a valuable tool for long-term or medium-term analysis. While these intermarket relationships generally work over longer periods of time, they are subject to draw-downs or periods when the relationships do not work. Big events, such as the 2008 US financial crisis, can throw certain relationships out of whack for a few months. Furthermore, the techniques shown in this article should be used in conjunction with other technical analysis techniques.



## Glossary :

- **Future contract:** Futures contracts are financial derivatives that oblige the buyer to purchase some underlying asset (or the seller to sell that asset) at a predetermined future price and date in the future.
- **Bonds:** are loans you make to a corporation or government. The interest payments stay the same for the life of the loan. You receive the principal at the end if the borrower doesn't default.
- **Underlying asset:** Underlying asset are the financial assets upon which a derivative's price is based. Options are an example of a derivative.
- **Interest rate differential:** Interest rate differentials simply measure the difference in interest rates between two securities. If one bond yields 5% and another 3%, the IRD would be 2 percentage points.
- **S&P 500 index** is a leading index of NYSE, listing the collective value of top trading companies on the exchange. Cash indices are the best tools to monitor market trends. They can be used to measure the price fluctuations in the underlying market and provide a historical perspective.
- **Yield:** refers to the earnings generated and realized on an investment over a particular period of time. It's expressed as a percentage based on the invested amount, current market value, or face value of the security. It includes the interest earned or dividends received from holding a particular security.
- **Fair value:** it refers to an asset's sale price agreed upon by a willing buyer and seller, assuming both parties are knowledgeable and enter the transaction freely. For example, securities have a fair value that's determined by a market where they are traded.
- **Market value:** (also known as OMV, or "open market valuation") is the price an asset would fetch in the marketplace, or the value that the investment community gives to a particular equity or business.
- **Arbitrage:** describes the act of buying a security in one market and simultaneously selling it in another market at a higher price, thereby enabling investors to profit from the temporary difference in cost per share.

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