

What Does The Dollar Really Affect?

No one involved in financial markets or economic analysis would dispute the importance of the dollar. It is simply one of those givens; it is important because everyone else says it is important. If we have learned anything since the birth of the present system in the early 1970s, it is that exchange rates affect everything else in the economy. It is not one size fits all; no, it is one price affects all.

Let's run down a list of nine macroeconomic variables affected by exchange rates and see the impact of improper valuation.

	Macro Variable	Overvalued Currency	Undervalued Currency
1	Current Account Balance	Favors importers; leads toward deficit	Favors exporters; leads toward surplus
2	Capital Account Balance	Leads toward surplus	Leads toward deficit
3	Investment Flows	Favors making direct investment	Favors receiving direct investment
4	Labor Flows	Favors highly skilled	Favors unskilled
5	Savings Propensity	Favors immediate consumption	Favors deferred consumption
6	Price Stability	Deflationary pressure	Inflationary pressure
7	Interest Rates	Downward pressure on rates	Upward pressure on rates
8	Monetary Policy	Pressure to relax	Pressure to tighten
9	Political Rewards	Favors importers and creditors	Favors exporters and debtors

We can move down the list in short order; a caveat of “all else held equal” applies to all items in the discussion below. If a currency is overvalued, it is equivalent to saying there are too few units thereof relative to demand and each unit therefore acts as a stronger claim on external goods and services. This is why a too-strong currency was posited to lead toward a current account deficit and a capital account surplus, a situation which has obtained in the United States for more than three decades.

If a currency is overvalued, exports denominated therein are relatively expensive, but the cost of plant and equipment in the final market is lower. This favors making direct investment, much as the Japanese automobile has done for years in the U.S. The cost of labor in that currency rises, which favors minimizing labor content except for only those highly skilled workers who can add value. A cheap currency, such as the Mexican peso, rewards unskilled labor in that country.

If holders of an overvalued currency sense its overvaluation they will be eager to exchange it for goods and services and favor consuming over saving. And if every unit of that currency is a greater claim on goods and services, downward pressure on prices and presumably interest rates will result.

Economics does not operate in a political vacuum. The downward pressure on prices and the shift of labor preference from unskilled to skilled inevitably leads to calls for a looser monetary policy. Lower inflation always rewards creditors relative to debtors, a delicate balance in any democracy: All societies have more debtors than creditors, but only democracies enfranchise debtors.

Financial Market Impact

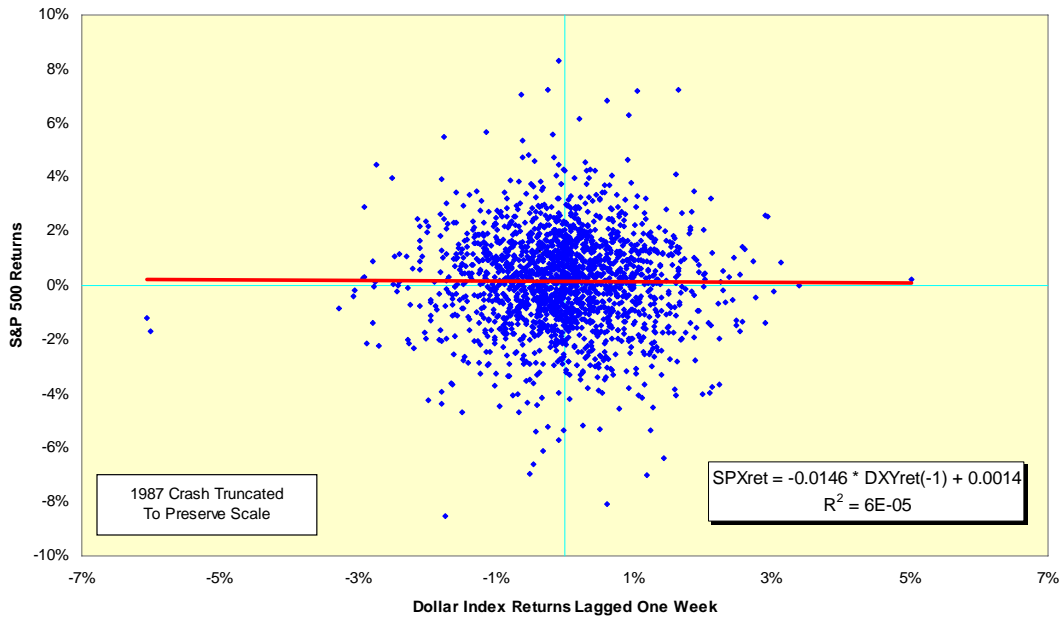
Few would quibble with the table of impacts above, but despite the not-yet successful efforts of exchanges to trade macroeconomic variables, there are no real ways to trade any of them directly. Stocks and bonds are not GDP futures. Moreover, the relationship between currencies and other financial markets tends to be far weaker and much more unstable than believed.

We can illustrate this with the dollar index (DXY) relative to various financial markets. The long-dated comparisons against the S&P 500 and gold use the weekly cash average of the DXY against the weekly cash averages of both the S&P 500 and gold; this eliminates some of the noise associated with using a single weekly close.

How many times have you heard a market commentary note how stocks moved higher “despite the weaker dollar?” More than 35 years of data are conclusive in this regard: Weekly returns on the DXY lead those on stocks by one

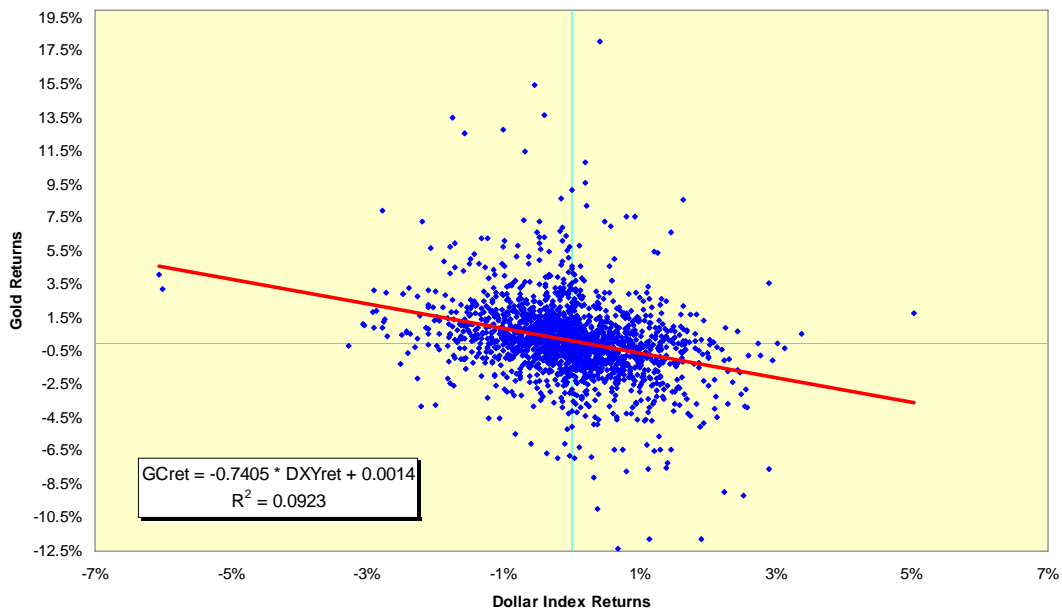
week on average, but their statistical effect is so weak as to be irrelevant. The R^2 , or percentage of variance explained, is .0006%. Even more surprising to many is the sign of the relationship. It is negative. We should expect dollar strength to depress, not enhance, subsequent returns on the S&P 500.

Stocks Hardly Follow The Dollar The 1971 - 2006 Experience



Gold is regarded by many as a financial asset, and its presumed relationship with gold has a strong logical footing: If each dollar is worth less, it should take more of them to claim a given quantity of gold. But the relationship is a bit cloudier than that. We would have to include the expected rate of inflation and the short-term interest rate cost of holding gold as well as any actual supply-demand shifts in gold in the equation. As we have seen in 2006, the price of gold can disconnect from these presumed relationships quickly and dramatically. Even so, the R^2 of gold relative to the DXY is several orders of magnitude higher than that for the S&P 500. In addition, the sign of the relationship is strongly negative, as we should expect given the logic noted above.

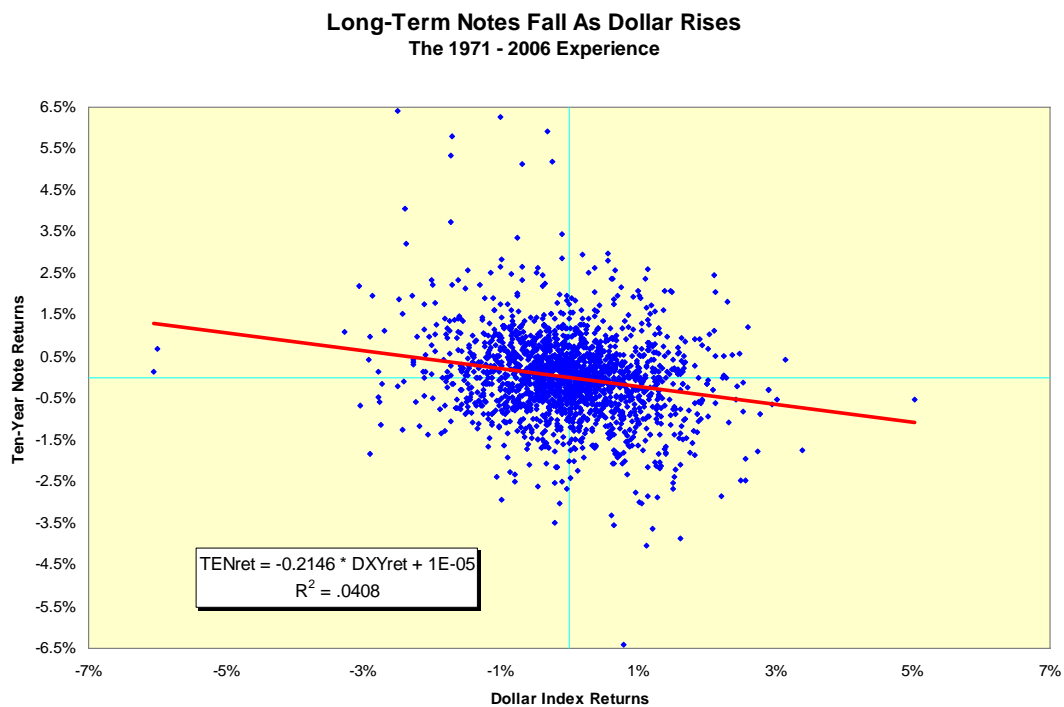
Does Gold Really Follow The Dollar? The 1971 - 2006 Experience



Bond Markets

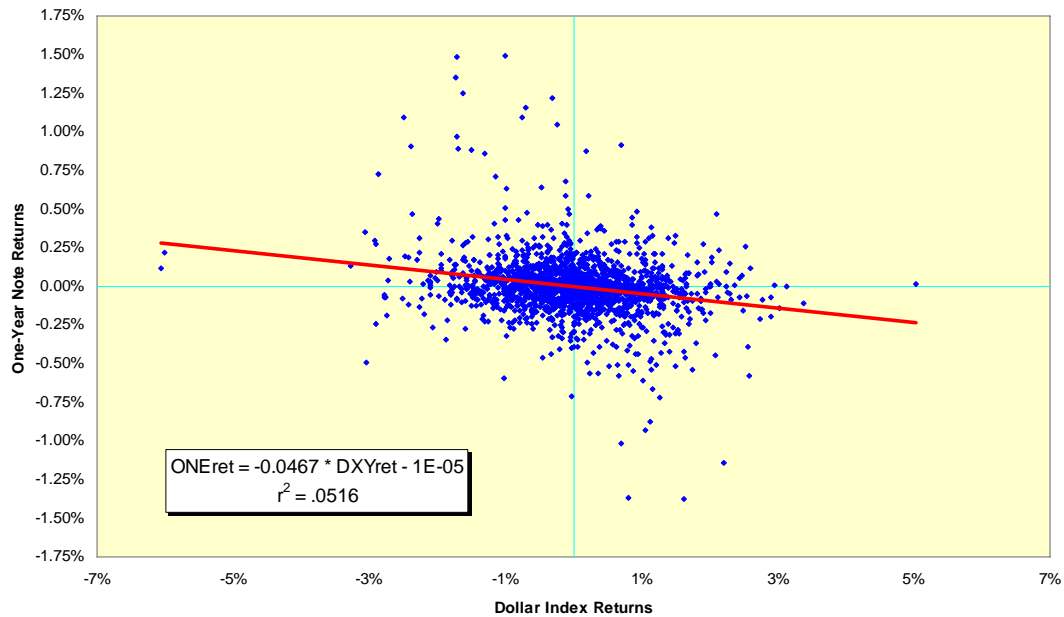
Another common perception in financial markets, one grounded by the table of macroeconomic effects, is a strong dollar should depress both inflation expectations and by extension long-term interest rates. If we construct a hypothetical series of weekly returns on a constant-maturity ten-year Treasury note from the Federal Reserve's [H-15](#) report, we find rather the opposite. A stronger dollar is associated with declining bond prices.

The reasons for this are simple and straightforward. The dollar tends to strengthen when the economy is strong and interest rates are rising. This set of conditions is associated more often than not with rising long-term interest rates.



If the explanation offered above for long-term notes' relationship with the dollar is true, then we should see a negative relationship with short-term notes as well. These instruments tend to be more responsive to direct changes in monetary policy than long-term notes. And indeed the relationship between one-year notes' returns and the DXY is negative as expected.

Short-Term Notes Do Follow The Dollar The 1971 - 2006 Experience



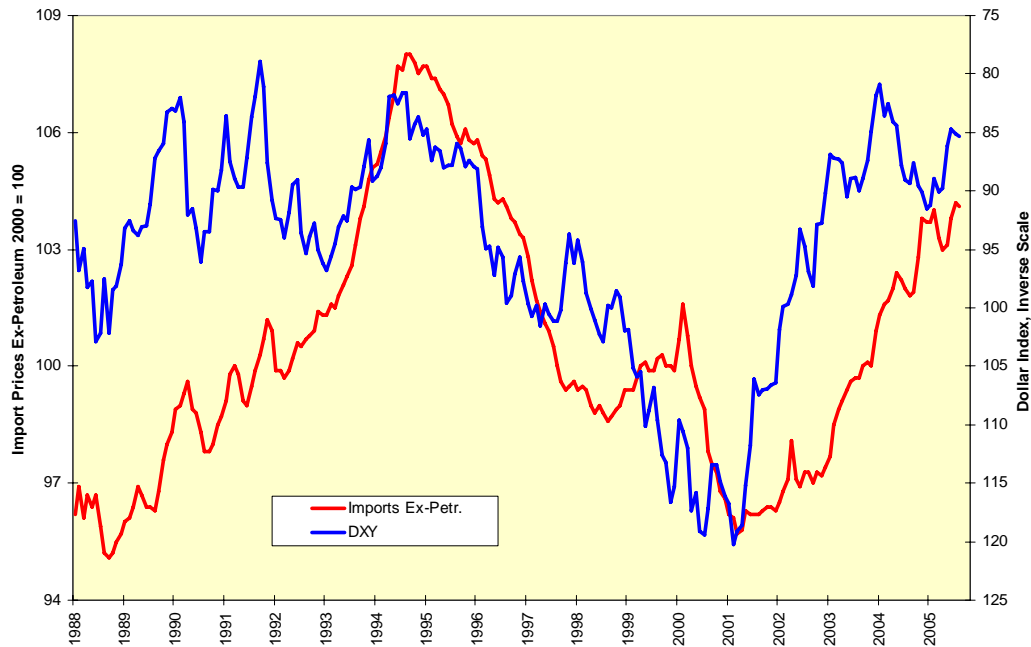
Returning To The Macro

The quick tour of dollar impacts offered above may seem to fall into the “everything you know is wrong” category. This is not quite the case; both the economy and financial markets are highly complex, dynamic and chaotic systems with multiple feedback loops and asymmetric relationships. This is why it is always so important to add the “all things held equal” caveat. The effects posited may exist on a standalone basis, what mathematicians call a partial derivative effect, but are overwhelmed in a complete system.

Think of it as adding a drop of yellow paint into a can of blue paint. You remember from your childhood art class this is supposed to produce green, but the single drop is simply going to be overwhelmed. The resulting mix is infinitesimally greener even though you cannot discern it.

But if we start isolating relationships that should work, we often find they are perfectly valid. Let’s take the case of a weaker dollar raising import prices in the U.S. We can use the measure of import prices ex-petroleum imports; as petroleum is priced in dollars worldwide and is notably non-sensitive to currency fluctuations, we should exclude it from a price index. The government only began tabulating this index in 1988.

Import Prices And The Dollar



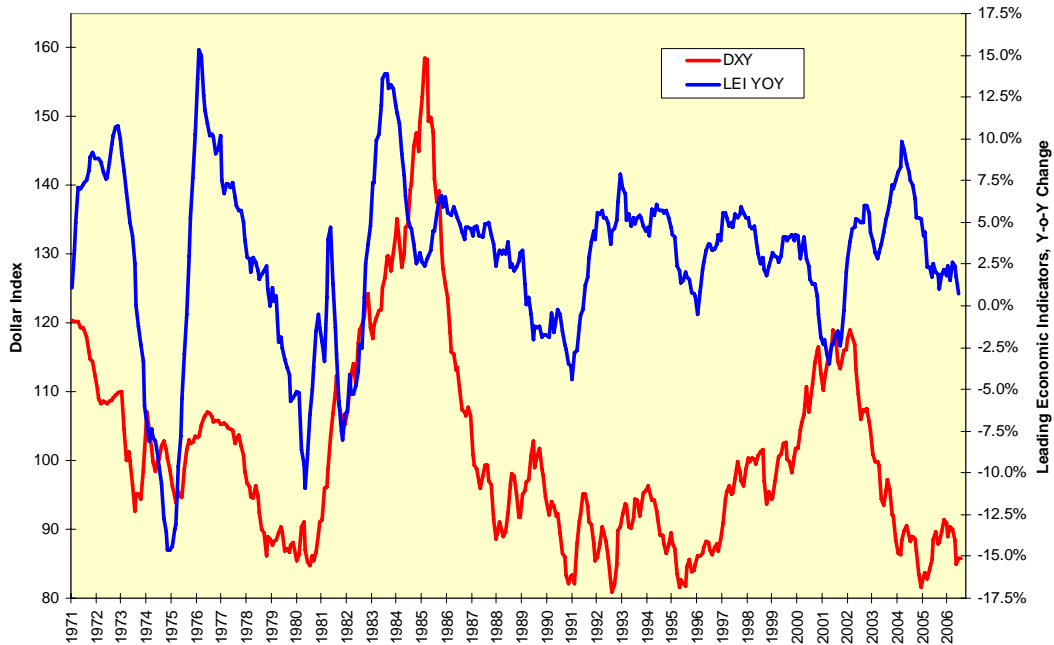
The expected relationship exists in an asymmetric form. Import prices fell during the 1995-2001 bull market in the DXY in a quick, direct and nearly linear response to the rising dollar. The opposite is not true: During the 1988-1992 stable dollar period and again during the dollar bear market of 2002-2004, import prices rose only well after the dollar fell.

This is evidence of competitive behavior by exporters. If they increased prices immediately in response to the weaker dollar, they would risk losing market share both to fellow exporters and to domestic producers. They respond by reducing margins to maintain market share; this is one reason why the stock markets of weakening-currency countries have tended to outperform their strong-currency brethren over the past decade.

On the opposite side of the equation, a strong dollar provides exporters to the U.S. with an immediate reward. They can cut their prices and still receive full purchasing power in return for their exports. This explains the observed asymmetry.

Finally, these microeconomic responses to changes in the dollar explain why currency manipulation tends to be such a losing strategy for those who engage therein. Let's map the year-over-year changes in the U.S.' index of leading economic indicators against the DXY over the past 35 years. The U.S. twice engaged in deliberate and overt dollar weakness policies, during the mid-1980s and again in 2002-2004. Did the leading economic indicators respond as intended either time? Hardly; parties on all sides of the manipulation adjusted their prices and cost structures and adapted to the manipulation. Will this prevent further bouts of currency manipulation in the future? Not a chance.

The Dollar And The Leading Economic Indicators



One of the great mysteries of modern life is why when so much data and computer processing capacity is available as never before in human history do people persist in making unfounded assumptions about market relationships without ever stopping to crunch the numbers. The simple fact of the matter is causal relationships between the dollar, financial markets and the economy are seldom the simple and direct ones we can posit on a partial derivative basis. Markets adjust and indeed are supposed to adjust to all of the effects noted in the table above. Successful traders will recognize this and incorporate it into their longer-term trading strategies.