Confluence INVESTMENT MANAGEMENT

Weekly Geopolitical Report

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Reflections on Trade: Parts I-IV

Donald Trump ran on a platform opposing free trade. Although Congressional support for free trade has been waning for some time, the general consensus among economists is that free trade makes the economy more efficient and supports global stability.

However, the steady erosion of manufacturing jobs in the U.S. and the shrinking of the middle class[1] have called the consensus view into question. It is clear that President Trump's anti-trade rhetoric resonated with voters and was one of the factors that led to his election.

Since the election, there have been a number of assertions made about trade, both positive and negative, that appear to us to be only partially true and perhaps designed to support a particular position. Trade can be negative for participants facing competition from abroad; for the overall economy, it does seem to bring more variety and lower prices.

In this report, we will offer several reflections on trade that we hope can provide some insight into how to use macroeconomics to judge the veracity of certain claims. It is our goal to present a fair reading of economic theory that will help readers make sense of what the media reports. This topic is worthy of a geopolitical report because American trade policy has been a critical element in how the U.S. manages its superpower role. First, we will lay out the basic macroeconomics of trade. Next, we will discuss the impact of exchange rates and further examine the two models of economic development. We will then analyze the reserve currency's effect on trade and look at some real world examples, concluding with market ramifications.

Are imports a drag on growth?

The current administration has made the assertion that imports are a drag on growth, which comes primarily from Peter Navarro, the Director of the White House National Trade Council. Strictly speaking, it is correct. In national income accounting, imports are subtracted from GDP. The reason for subtracting imports from the calculation is to avoid double counting.

Gross domestic product (GDP) is the sum of consumption (C), investment (I), government consumption (G) and net exports (X - M), or:

$$GDP = C + I + G + (X - M)$$

One way to think about GDP is that it is the sum of all things produced inside a nation's borders. Thus, all things produced must fall into the above equation's components—in other words, everything produced is either consumed by households, represents investment for firms, consumed by the government or consumed by foreigners via exports. If imports are not subtracted, it would overstate GDP, which, to reiterate, is domestic production within a nation. Imports are not produced within a nation.

[1] https://www.nytimes.com/2017/04/24/business/economy/middle-class-united-states-europe-pew.html?_r=0

Another way to think about imports is that all imports are consumed in some fashion. They are bought by households, firms, the government or re-exported. Thus, they are already counted in the GDP equation.

Although imports do reduce GDP, they are not necessarily a measure of "loss." A nation may import some goods that are not produced at home and thus blocking these goods doesn't improve the wellbeing of a nation. Additionally, even if the good is produced at home, comparative advantage[2] may mean we are better off importing the good anyway. In some cases, imported goods allow a nation to boost overall output; importing capital goods to build productive capacity or raw materials to produce finished goods are examples of beneficial imports. At the same time, there are cases where imports do adversely affect domestic industries and jobs. However, we believe it's better to examine this issue in a broader context. If imports were inherently bad, then the world's most obvious autarky, North Korea, should be the most prosperous nation on earth. That would be a difficult position to defend.

Is mercantilism viable?

Mercantilism is the trade theory that suggests a nation is strengthened to the degree that it runs a trade surplus and accumulates foreign reserves, usually in the form of precious metals. This is an old theory that was disproven by David Hume in 1752 in his analysis of the price-specie flow mechanism. Essentially, Hume argued that if a nation accumulated gold by exporting more goods than it imported, the money supply would rise and cause price levels to rise. As price levels increased, foreign goods would become more attractive in price and lead to a reversal of the flows. If trade barriers prevented the reversal of precious metals flows, the overall outcome would simply be inflation. A good example is colonial era Spain, which captured enormous amounts of precious metals from its colonies in the Americas. The accumulation of silver and gold reportedly bolstered the trend toward higher prices.[3]

Despite this analysis, politicians since the 18th century have still supported what are essentially mercantilist trade policies. Initially, the thought was that large government coffers of gold would give a nation the resources to fight wars and thus was a form of defense spending. In logic, this is known as the error of composition. This classic error is the mistaken belief that what holds for the individual is true for the entirety. There is a natural human tendency to see saving as an individual virtue and mercantilism appears to be a form of saving. If it's an individual virtue, it "must" be a collective one as well. As Hume noted, not necessarily.

How does trade become unbalanced?[4]

Among the general public, the macroeconomics of trade are not well understood. Often, the focus is micro-based, with concerns about the attractiveness of products. In other words, why would Germans import a Buick when they have access to Mercedes Benz? Although such concerns might make sense in terms of autos, the issues are different for the entire

[2] David Ricardo produced this theory of trade in 1817. https://en.wikipedia.org/wiki/Comparative_advantage

[3] Fischer, D. H. (1996). *The Great Wave: Price Revolutions and the Rhythm of History*. Oxford, England: Oxford University Press (pp. 82-85).

[4] The following analysis borrows heavily from Michael Pettis. See his signature work in this area: Pettis, M. (2013). *The Great Rebalancing: Trade, Conflict, and the Perilous Road Ahead for the World Economy.* Princeton, NJ: Princeton University Press.

economy. Occasionally, an economist on television will make the statement that the U.S. trade deficit is due to a lack of saving. This is true, but it's only part of the story.

When looking at the economy from a macroeconomic view, we have to look at two perspectives, sources and uses. From the sources perspective, we bring back our formula from page one:

GDP = C + I + G + (X - M)

All things produced must fall into the above equation's components—in other words, everything produced is either consumed by households, represents investment for firms, consumed by the government or consumed by foreigners via exports. But from the uses perspective, the economy comprises consumption, saving and taxes.

GDP = C + S + Tx

C and I still reflect consumption and investment, respectively, but S is saving and Tx is taxes.

So, by equating these two together, we get the following:

C + S + Tx = C + I + G + (X - M)

Rearranging again gives us this identity:

S + Tx + M = I + G + X

Simplifying and rearranging again:

(M - X) = (I - S) + (G - Tx)

This identity means that the private investment/savings balance (I - S) plus the public spending balance (G - Tx) is equal to the trade account. This is true in the same way a balance sheet is true—the numbers will simply add up that way. ***What it doesn't tell us is the direction of causality!***

So, let's look at an example. If a nation's saving equals its investment and it runs a balanced fiscal budget, then it will run a balanced trade account. It doesn't matter what the exchange rate is or what trade policy is in place; if the private and public sector balances, there will also be balanced trade. It isn't magic, it's just a balance sheet.

Next, let's assume that taxes are cut and the government balance is "positive." If trade is going to remain balanced, the private sector must have an equally negative balance, meaning saving must rise relative to investment. If the private saving/investment balance is unchanged, a trade deficit will result.

This means that by cutting taxes and not addressing the government deficit, either private saving must rise relative to investment or imports must exceed exports, leading to a trade deficit. ***Consequently, a trade deficit, in effect, is the acquisition of foreign saving.*** This shows that a negative domestic saving imbalance will lead to a trade deficit. At the same time, a positive domestic savings balance will lead to a trade surplus.

This is why one will hear economists dismiss trade issues as a "mere" saving imbalance. As we note above, this is true. However, there is a moral dimension to saving, as *not* saving is often seen as a moral deficiency. This is where Pettis made his critical insight. In an open trading system, other nations can affect the domestic savings balances. ***In other words, that resulting trade deficit in the above example only occurs if there is an equal and opposite reaction in another nation in the form of a***

trade surplus. The opposite is also true. Trade surpluses only occur if some other nation accepts a trade deficit.

The "Japan Model"[5] of development calls for policies that drive up household saving. This is usually done through financial repression and wage suppression. Referring to the last equation, (M - X) = (I - S) + (G - Tx), assume that S>I. If the government doesn't absorb the private saving through fiscal deficits, a trade surplus will result, as X must exceed M to balance the identity. This model is designed to provide cheap investment funds to build up the productive capacity of the country.

In contrast, the "American Model"[6] of development relies on foreign investment. In this arrangement, I>S; assuming no change in fiscal stance, M>X. The trade deficit is an import of foreign saving for investment.

When a nation uses the Japan Model, there is foreign saving for the rest of the world that has appeared in the form of imports. In other words, M has to rise somewhere. In a two-world economy, the other economy now must run a trade deficit which is triggered by either the private saving balance or the public saving balance rising (or, of course, some combination of the two). In other words, investment must rise, saving must fall, government consumption must rise or taxes must fall in order to absorb the additional imports.

It is critically important to understand that for the Japan Model to work, the rest of the world must accept the developing nation's exports. Without that willingness to absorb imports, the Japan Model doesn't work.

As we noted above, determining the direction of causality is difficult. The fact that a nation runs a trade deficit may be due to its domestic policies or due to other nations' policies and economic structures. Thus, the U.S. may have a trade deficit because we have policies that encourage consumption and investment and discourage saving. Or, it may be because we run persistent fiscal deficits. But, it may also be due to the fact that other nations have structured their economies to have trade surpluses that the U.S. is willing to absorb. For the most part, all these factors are in play.

Can a nation prevent a trade deficit through protectionism?

Yes, but the same identity described above is still in place. It is often believed that trade restrictions affect only the foreign saving part of the saving identity. However, because the identity is like a balance sheet, it actually must balance the other parts of the identity as well. Let's assume a nation runs the Japan Model but the rest of the world won't accept the exports. Investment, in the form of unwanted inventory, will rise, absorbing the excess saving. The unwanted inventory will have a negative impact on the economy using the Japan Model. This could include deflation as the excess inventory lowers prices, unemployment which reduces consumption and saving or rising fiscal deficits as the imbalanced nation tries to maintain the level of GDP.

Is there a cost to the nation deploying trade protection? Although nothing in that nation becomes unbalanced, there is the opportunity cost of not having cheaper imports available. Thus, it would likely lead to higher price levels that would not

[5] We call this the Japan Model because it has been adopted by Asian nations for development.

[6] We call this model the American Model because it is how the U.S. acquired saving during its industrial revolution, which began in earnest in 1870.

otherwise occur and lower prices in the nation using the Japan Model.

How do exchange rates affect the identity?

The most common way to explain how exchange rates affect trade is through microeconomics. It is assumed that relative price differences change the demand for imports and exports, thus changing the trade balance. However, as we have seen, the relative price effect has to translate into the saving identity. Nations using the Japan Model for development usually deploy an undervalued exchange rate. By keeping the exchange rate undervalued, it lowers relative costs to the rest of the world, which raises consumption, depresses saving and, assuming stable investment, will create an imbalance in this relationship.

$$(M - X) = (I - S) + (G - Tx)$$

In other words, using the saving identity, S falls, creating a private sector saving imbalance. Assuming no change in the fiscal situation, M must rise relative to X in the rest of the world to balance the equation.

In the nation using the Japan Model, an undervalued exchange rate reduces real wages, depressing consumption (C) and boosting saving (S). As S>I, assuming no change in public saving, exports (X) must rise relative to imports (M).

When the rest of the world refuses to accept the undervaluation of the exchange rate, the rest of the world sees a reversal from the previous condition. Prices will tend to rise on imports which will depress consumption and likely lead to rising saving. That will narrow the private investment/saving balance and reduce M relative to X, again assuming no change in fiscal policy.

What happens in the country using the Japan Model when the exchange rate is forced higher? A rising exchange rate lowers the cost of imports to that nation, reducing overall costs and lifting consumption. This should reduce saving, narrowing the private investment/saving balance and, once again assuming no change in fiscal policy, reduce X relative to M, leading to a smaller trade surplus.

How does foreign investment fit the saving identity?

Nations achieve developed nation status by building productive capacity. This requires saving to fund investment. The Japan Model generates this saving internally; the American Model acquires the saving from abroad.

$$(M - X) = (I - S) + (G - Tx)$$

So, using this identity, a nation in development needs to raise investment (I). If it does not have enough saving (S) to meet the demand for I, assuming no change in fiscal policy, M must rise relative to X. ***A nation running a trade deficit is, in effect, importing foreign saving.*** That is the essence of the American Model. We note that the Japan Model differs from the American Model by generating saving internally.

Doesn't this make the Japan Model counterintuitive?

In some respects, yes. It would seem more logical that a nation building its economy would import saving from abroad. Not only would the investment probably offer a higher rate of return to foreign savers who are making the foreign investment, but it would allow the developing nation to build its productive base without suppressing consumption and financial repression.

The Japan Model does appear more self-reliant. Instead of being dependent on foreign investors, who have been known to withdraw investment on a whim, the Japan Model nation is using domestic saving. However, it is really an exchange of risks. Instead of accepting the risk that foreign investment may be reduced or flee, the Japan Model accepts the risk that foreign markets won't be closed off to exports. ***As we will discuss later, the Japan Model has worked since WWII because the U.S., as global hegemon, is essentially the global importer of last resort.***

Are there other issues that emerge from the Japan Model?

There is an interesting issue that occurs with development using any model where consumption is suppressed. As noted earlier, suppressing consumption is designed to create saving which is used to fund investment. Because saving is forced, it is likely that interest rates will also be kept lower than what a free market may generate. This condition could lead to malinvestment or overinvestment.

Investment is one of the most difficult activities for any nation. That's because it requires some element of forecasting the future. In the early stages of development, almost any investment will generate a positive return. However, as development progresses, the need to allocate investment efficiently rises. The abundance of saving increases the likelihood of excessive investment, which can cause productive capacity to exceed consumption. If this excess capacity remains in place, it will eventually reduce the return on capital and stagnation will develop.[7]

It should also be noted that funding investment is generated by the financial system. Investing firms either borrow or issue equity to fund investment. In most developing economies, the financial system tends to be immature and most of the funding comes through the banking system in the form of debt. Although both forms of financing have their own risks, in general, debt carries macroeconomic risks as excessive debt can lead to financial crises.

European powers faced an overinvestment problem before WWI. As they raced to develop their economies they found themselves with excess productive capacity. To maintain saving in excess of investment they needed to export their surplus saving (or, to put it another way, their excess productive capacity). This was achieved through colonization. Colonies were forced to overconsume and undersave, leading the colonies' investments to exceed domestic saving. This condition was resolved by running a trade deficit; these imports were provided by the colonial power. Essentially, colonies allowed the development model of oversaving to be maintained.[8] The colonies became unnecessary after WWII because the productive capacity of most colonial powers was destroyed during the war.

The U.S. did not follow this model of development. In part, the U.S., due to its large domestic market, was able to avoid the excess productive problem for nearly five decades. From 1870 until WWI, the U.S.

[7] The theory of underconsumption and excess production was developed by a number of radical economists. Although Marx only alluded to this issue, Engels developed this concept further. See:
Engels, F. (1947). *Anti-Duhring*. Progress Publishers. Originally published Leipzig 1878.

[8] See: Hobson, J.A. (1902). *Imperialism: A Study*. New York, NY: James Pott & Company.
Lenin, V. (1999). *Imperialism, The Highest Stage of Capitalism.* Chippendale, NSW, Australia: Resistance Books. Originally published 1917.

was generally able to prevent overcapacity.[9] Still, the large domestic market didn't prevent the eventual creation of excessive productive capacity. The Great Depression showed that the U.S. was plagued with overcapacity once exports fell (in part due to retaliation from the Smoot-Hawley Tariff).

However, this problem did take a while to develop and the devastation caused by WWI, which boosted demand for U.S. exports, likely played a role in creating the excess capacity. During development, the U.S. industrial revolution was mostly funded by British investors (and the U.S. ran a trade deficit during this period). Interestingly enough, there were investment booms and busts that occurred despite the fact that a domestic saving model wasn't adopted. Significant losses were suffered by overseas investors. In the Japan Model, these losses are borne by domestic investors and often these losses are non-performing loans, which require a politically painful workout period.

How do these two development models manage the transition from developing nation to developed nation status?

History suggests that no nation achieves developed nation status without stress. The history of economic development suggests that the world has a "parade" of high growth/low cost producers which reflect the spread of industrialization. These nations, due to their high growth, are often considered economic "miracles." The Soviets, who experienced high growth during the 1950s and 1960s, were projected to "bury" the U.S.[10] Those concerns evaporated by the 1970s. Japan was thought to have created a new form of capitalism during its growth phase; no one believes that anymore. China has been lauded in a similar fashion, although we believe that China's turn as the high growth/low cost producer is rapidly coming to a close.

We think the case can be made that generating saving internally creates the most problems. The Japan Model, as noted, funds investment mostly through domestic saving. Consumption is usually constrained by having a weak currency, which keeps prices high, along with tariffs and other trade barriers which have the same effect as a weak currency. Another feature of the model is low deposit rates, a form of financial repression. Low deposit rates usually encourage higher saving rates to achieve saving goals and lower borrowing costs to borrowers (investors). In addition, even lax environmental rules, which make it easier to build plant and equipment, bring pollution, which raises health care costs to households. If the social safety net is weak, even more saving is generated to pay for future health care costs.

It should be recognized that the process of development is difficult in both capitalist and communist economic systems. The problems in capitalist democracies are well documented. However, communist regimes faced similar problems. Because both the U.S.S.R. and China relied on domestic saving, both squeezed households to create a source of funds. In the U.S.S.R., the industrialization under Stalin led to millions of deaths (although, to be fair, many of those executed were perceived political threats).

[9] We do acknowledge that this wasn't true in all industries. Excess capacity likely occurred in railroads.

[10] This is a quote from Nikita Khrushchev in the mid-1950s; although often attributed to nuclear conflict, it appears he was referring to the superiority of communism as an economic system.

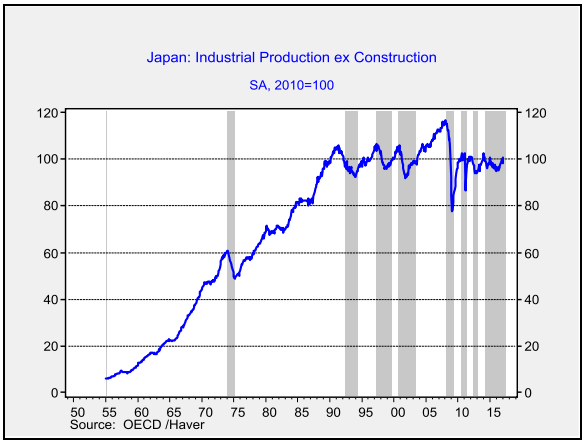
China's development has clearly been on the back of constrained household spending.[11]

What tends to occur over time in the process of development is that productive capacity becomes excessive. In other words, overinvestment occurs. Although this problem tends to happen regardless of whether a nation generated saving internally or acquired it from abroad, the Japan Model has been dominant in the postwar era and so the most recent examples of the issues tied to development are linked to that model. In addition, because the Japan Model specifically keeps interest rates low, the potential for malinvestment is probably higher than in a nation using the American Model, which uses prevailing interest rates to discount investment.

History does show that the policies designed to generate investment develop a political constituency. In other words, the group in society that has benefited from policies that constrain consumption and boost saving wants them maintained even after development has been achieved. These policies take on the role of "self-evident truths."[12] Because those who have benefited from the development model have become wealthy, they usually become politically powerful as well. As a result, these policies remain in place past their period of optimal usefulness.

The adjustment to more consumption and less investment is difficult for any country. It usually takes something drastic, such as war or depression, to force change. As noted above, when European nations reached this point, they turned to imperialism to absorb their productive excess. The U.S. arguably needed the Great Depression to make this adjustment, even with using foreign saving, which should, in theory, be better than internally generated saving because foreign investors are using market discount rates to make investment decisions.

A case can be made that Japan has never managed to make the transition.



This chart shows Japan's industrial production. Although we did finally see a new peak in early 2008, the uptrend from 1955 to 1990 was clearly broken. We have put Japan's recession bars on the chart; since 1990, Japan has suffered through seven recessions, three of which exceeded two years.

Germany, who also continues to use export promotion and has high levels of domestic saving, has effectively used the Eurozone as a colony. Because nations within the Eurozone cannot use currency depreciation or trade protection, the other nations within the currency bloc are forced to absorb Germany's excess saving by running trade

[11] The aforementioned Michael Pettis does a solid job in explaining China's development in detail. See: http://carnegieendowment.org/chinafinancialmarkets/ for his blog.

[12] See WGRs, Thinking About Thinking: Part I, 8/15/16, and Thinking About Thinking: Part II, 8/22/16.

deficits. This is the root of the problem in southern Europe.[13]

China has enjoyed a remarkable period of growth but is showing similar strains as those seen in Japan in the late 1980s. Debt levels are high, foreign nations are balking at Chinese exports and the need to transition to higher consumption and less investment has been slow due to, we believe, a strong constituency within the Chinese Communist Party opposed to changing the current model because many high-ranking members of the party have greatly benefited from that model. To be fair, all nations that strive for developed status struggle to make the transition from high investment to high consumption. China's transition issues are not unique in that regard.

What is the reserve currency?

When a country runs a trade surplus, it creates excess saving that must be either invested overseas or held as foreign reserves. If a gold standard is being used, the excess saving/foreign reserves can be held as gold (or other precious metals). In theory, reserve managers can hold just about any asset as foreign reserves. However, if the ultimate goal of generating saving is to build the productive capacity of the economy, then the best foreign reserve assets should be safe and easily convertible, with broad acceptability in markets.

Here is an example we often use to describe why the reserve currency is important. Imagine that a chocolatier in Paraguay wants to purchase a ton of cocoa beans. He calls a dealer in Côte d'Ivoire for a price; the seller offers $1,800 per ton. The buyer in Paraguay notes he does not have U.S. dollars but does have Paraguayan guaraní. The seller does not want the Paraguayan currency because it would limit his purchases to Paraguay because the guaraní isn't widely accepted. The seller in Côte d'Ivoire would be able to buy a wider variety of goods (or have wider avenues for investment) from selling cocoa if he receives U.S. dollars instead.

So, how does the chocolatier in Paraguay get dollars? The most efficient way would be to export chocolate to a U.S. buyer, then use the dollars he receives to buy cocoa beans from Côte d'Ivoire. Because the reserve currency has widespread acceptance, non-reserve currency nations have an incentive to run trade surpluses with the reserve currency nation to accumulate the reserve currency, which allows them to pay for imports from around the world.

Is the reserve currency a global public good?

Economists define a public good as a product or service that must be provided by governments because the private market won't provide the good, or will provide the good in less than optimal amounts. There are seven public goods a reserve currency nation should provide:

1. Act as a consumer (importer) of last resort;
2. Coordinate global macroeconomic policies;
3. Support a stable system of exchange rates;
4. Act as lender of last resort;
5. Provide counter-cyclical long-term lending;
6. Provide a truly riskless AAA asset for benchmarking purposes; and
7. Supply deep and predictable financial markets.

Charles Kindleberger, the famous economist who studied asset bubbles, identified the first five, and Mohamad El-Erian, the chief

[13] Pettis, op cit, Chapter 6.

economic adviser at Allianz, added the last two.

The Bank for International Settlements (BIS) reports that more than 80% of trade-related letters of credit are denominated in U.S. dollars, significantly more than the second most used reserve currency, the euro, at 10%.[14] That means most global trade is conducted in dollars between nations other than the U.S. ***Essentially, the reserve currency nation must run constant trade and current account deficits in order to provide liquidity for global trade***. Thus, the U.S. doesn't run trade deficits because we purposely "under-save" as noted earlier. Strictly speaking, as the saving identity shows, we do undersave but the reason for this activity is really the issue. It may be due to domestic policy but it can also be forced upon the U.S. by the actions of foreign trade policy.

Because of the reserve currency role, we believe the undersaving (in other words, the trade deficit) is mostly in response to foreign nations oversaving and moving that saving to the U.S. in the form of exports. If the U.S. were to run persistent trade surpluses, it would act as a form of global monetary tightening. In other words, by pulling dollars from world markets, the global trading system would face a contraction of available liquidity. If the reserve currency nation refuses to provide enough of its home currency to global markets, world trade is effectively reduced to barter, or counter-trade, meaning that nations can only engage in bilateral trade relations. Using the above example, the Paraguayan chocolatier can only acquire cocoa beans from Côte d'Ivoire if the seller there has something specific he would like to "swap" from Paraguay. Simply put, global trade would fall sharply if a reserve currency is unavailable.

How does the reserve currency factor into trade?

When a nation runs a trade surplus it accumulates foreign currency. In the era of the gold standard, the exporter could be paid in gold. As we noted earlier, David Hume generally proved that accumulating gold eventually would lead to higher inflation and lead to a reversal in the trade imbalance.

A serious drawback with the gold standard was that the global money supply depended upon the mining industry. If the global aggregate supply curve expands due to industrialization but the gold supply remains fixed, deflation is unavoidable. At the same time, however, it also acted as an automatic stabilizer for foreign trade flows. In other words, gold generally prevented a nation from running persistent trade deficits or surpluses as shown by Hume.

Because the supply of gold is not backed by liabilities and thus does not generate interest, over time, the gold standard changed into a currency-gold standard. Nations would use either gold or the currency of the global hegemon for reserve purposes. Using currency allowed the reserve managers to earn interest. At the same time, a nation holding reserves understood that they could exchange the reserve currency for gold.

At Bretton Woods in 1944, the U.S. created a reserve system that replaced the British pound with the U.S. dollar for foreign reserves. The U.S. agreed to exchange dollars for gold at $35 per ounce. This system remained in place until 1971 when, under pressure from European nations draining American gold reserves, President Nixon suspended gold deliveries. The world

[14] http://www.bis.org/publ/cgfs50.htm

thus shifted to a dollar-Treasury reserve standard.

This new standard broke the gold link; in theory, it meant the hegemon could expand the supply of the reserve currency without limit. Unlike the limits that were part of the gold standard, it was now possible for the U.S. to run large trade deficits that could be triggered by either fiscal spending or the lack of private or public saving relative to investment. After 1971, the limits to foreigners absorbing the hegemon's spending were (a) foreigners deciding that they held too much of the reserve currency and opting for another currency, or (b) the hegemon deciding, likely for domestic employment reasons, that the trade deficit was too large.[15]

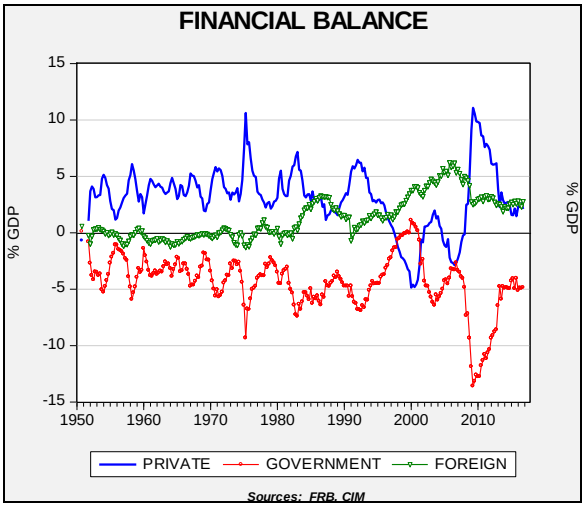
Because virtually all developed nations have used the Japan Model of development, none of them has an interest in becoming the reserve currency provider because it would require them to run trade deficits. In other words, it would require such a nation to reverse the policy of export and investment promotion to one of consumption and import promotion. Thus, there are really no obvious replacements to the U.S. dollar for reserves purposes, not because other currencies are not attractive but because these nations have no interest in jettisoning the Japan Model.

The U.S. management of the reserve currency was part of America's Cold War strategy. The U.S. was open to trade and used trade relationships to build coalitions in the Free World. This is likely why the Japan Model became prevalent. The U.S. supported it by being the global importer of last resort. At the same time, there were both benefits and costs to the dollar-Treasury model of managing the reserve currency.

Let's return to the saving identity to explore this issue.

$$(M - X) = (I - S) + (G - Tx)$$

Because the U.S. is willing to run persistent trade deficits, it can run fiscal deficits as well. Wars, large tax cuts, transfers and other fiscal spending can all be funded with foreign saving. At the same time, the need for private saving can be quashed by this same trade deficit.



This chart, from the Fed's Flow of Funds[16] data, shows that the private sector has usually been a supplier of saving, meaning that the investment/saving balance was mostly positive. Until the 1980s, private saving funded both the fiscal deficit and mostly balanced trade, represented by foreign flows. When the foreign reading is positive, it means the U.S. is running a trade

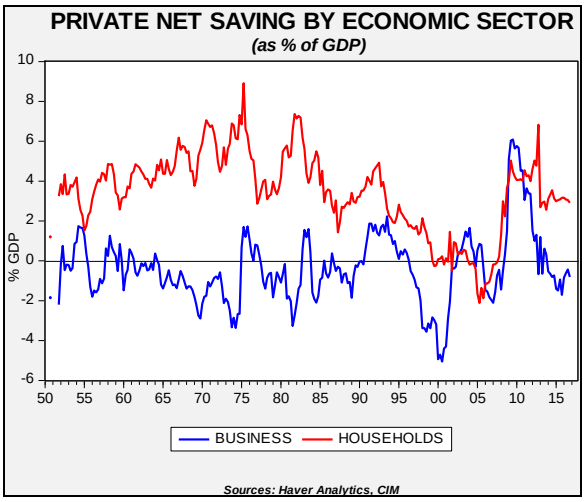
[15] For a detailed study of Nixon's policy decision with regard to the gold standard, see: Hudson, M. (1972). *Superimperialism*. New York, NY: Holt, Rinehart and Winston. (Chapters 12, 13).

[16] The official name is the Financial Accounts of the United States.

deficit.[17] Note that the private saving balance became negative in the late 1990s. This occurred for two reasons. The Clinton administration ran a small fiscal surplus during this period and foreign saving flowed into the financial system via the trade deficit.

The continued high flows from overseas into the U.S. financial system continued in the last decade. Federal Reserve Chairman Bernanke referred to this as a "savings glut,"[18] where emerging economies were building their foreign reserves after the Asian Financial Crisis in the late 1990s. For the most part, this influx kept rates low and encouraged borrowing in the U.S. This likely contributed to the real estate bubble.

For most of the postwar period, but especially since the 1980s, the U.S. has been open to trade which boosted foreign flows into the U.S. These flows have entered the U.S. for a number of reasons. Some of this lending was designed to support the Japan Model which was being deployed by China to build its productive capacity. China would send us goods; we would send them back Treasuries.



This chart shows U.S. private saving (as a percentage of GDP). Household saving rose steadily from the 1950s into the mid-1970s. For most of the period, businesses were net dissavers, which isn't necessarily a bad outcome because this forced firms into the capital markets to raise funds for investment. As inequality rose, saving steadily declined and was mostly replaced by foreign saving.

When a nation provides the reserve currency, every nation in the world has an incentive to run a trade surplus with the hegemon. The reserve currency is generally accepted across the world and can be used to buy just about anything. And, in the case of the U.S., financial markets are deep and a plethora of "risk free" fixed income instruments are available to use as saving vehicles. For much of the postwar period, the U.S. economy has been large and able to absorb imports; these imports tend to keep inflation low as the aggregate supply curve is really the world's supply curve.

Being the reserve currency is a mixed blessing. Foreign financial flows can distort financial markets. It can encourage excessive borrowing and keep interest rates lower than they otherwise would be. Foreign competition puts U.S. workers

[17] Strictly speaking, it's a current account deficit but trade deficit works for explanation purposes and, in any case, it's the largest component of the current account.

[18] https://www.federalreserve.gov/boarddocs/speeches/2005/200503102/

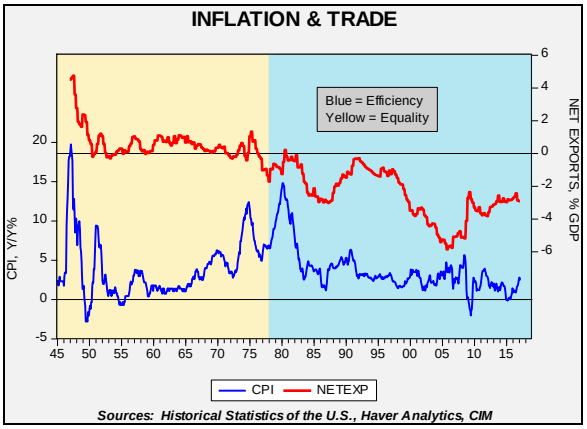
under constant pressure. For those who can successfully compete with foreign goods and services or are insulated from trade, rewards can be substantial, but many workers are unable to keep their jobs in the face of imports. The combination of ample financial flows and low inflation can encourage investors to take excessive risks. Like most things in life, where one stands on a position can be determined by where one sits, but the recent political tensions and the rise of populism are, in large measure, due to the reserve currency issue.

What are the tradeoffs of trade?

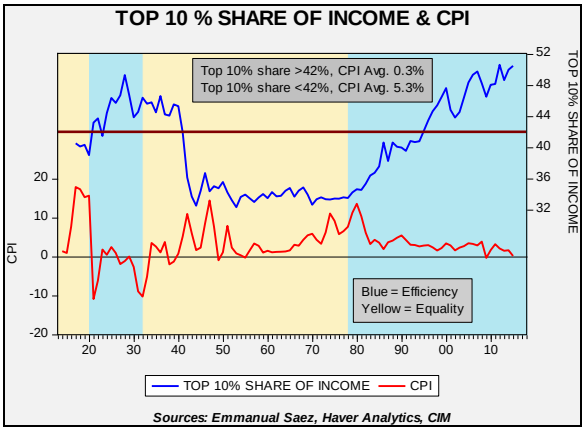
Trade is part of a broader societal tradeoff between equality and efficiency.[19] To function, societies need some degree of both. Nations with a high level of inequality tend to become politically unstable. At the same time, perfect equality tends to stifle initiative and prevent the building of productive capacity. Efficiency helps an economy provide goods and services at reasonable costs. Complete inefficiency makes everyone poor.

Okun's insight is that societies balance equality and efficiency to maintain order. What we observe in history is that there doesn't appear to be a balance point; in other words, this isn't an optimization problem. Instead, we see broad periods of oscillation where one goal or the other is waxing or waning.

When society needs to improve its efficiency, it prefers globalization. This goal can lead to a trade deficit. The chart below overlays the yearly change in U.S. CPI with net exports as a percentage of GDP. We have shaded the chart in yellow and blue; the former represents a period when equality was the primary focus of policy and blue is when efficiency was the primary goal.[20] Note that as inflation fell the trade deficit widened. Essentially, inflation fell by forcing U.S. firms to face increasing competition.



At the same time, this drive to efficiency created increasing inequality.

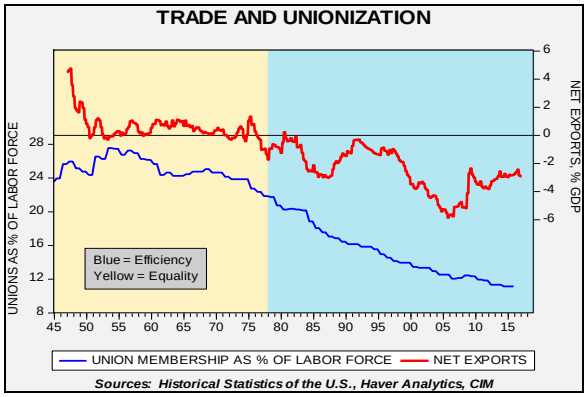


The chart above shows the yearly change in CPI with the top 10% share of national income. Again, we have defined equality and efficiency periods using the same color scheme over a longer period. As the box on the chart shows, inflation tends to be low when the top 10% of households are taking 42% of national income or more.

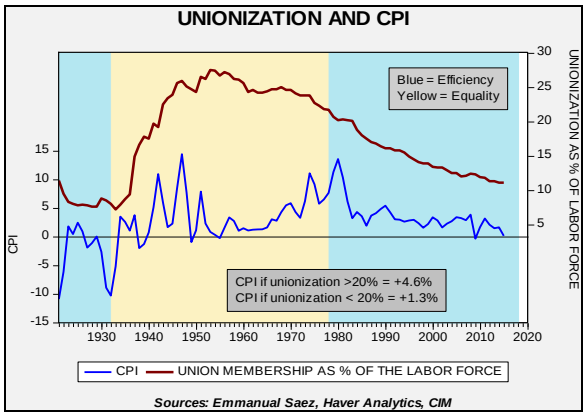
[19] Okun, A. (1972). *Equality and Efficiency: The Big Tradeoff*. Washington, D.C.: Brookings Institute.

[20] The breaks between equality and efficiency periods are our estimates, roughly aligned with presidents we believe signaled a change in policy emphasis.

Perhaps the best way to think about trade is that we are all consumers and, in that way, we benefit from imports which increase the supply of goods and services and lower their prices. However, when a worker competing against these imported goods and services finds his job in jeopardy or becomes unemployed due to trade, the attractiveness of free trade to that worker is reduced significantly. Simply put, lower priced imports seem to only be a benefit if they don't threaten my livelihood.

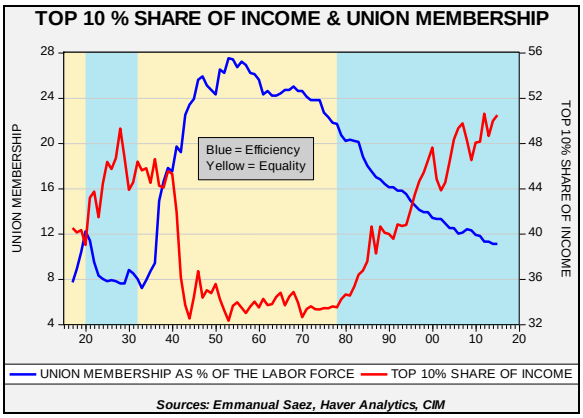


Unions flourish in environments where supply is concentrated and constrained. As this chart shows, the widening trade deficit accelerated the decline of the union movement in the U.S. This decline coincides with lower inflation.



As the box shows, when unionization is under 20% of the labor force, CPI is significantly lower than when unionization is at a higher level.

Finally, to complete the argument, this chart shows the effect of unionization on inequality.



This chart overlays unionization as a percentage of the labor force with the top 10% share of national income. It shows that unionization is inversely correlated at the 90.3% level with the amount of income captured by the top 10% of households.

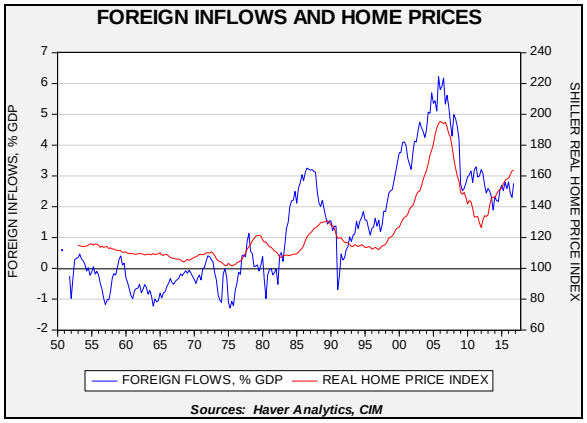
When the Trump administration argues that trade has worked against the U.S., the above charts describe the issue. Trade lowers inflation at the cost of inequality. Unions played a role in reducing inequality at the cost of higher inflation. Trade barriers should also reduce inequality at the cost of higher inflation.

Again, referring to the saving identity:

$$(M - X) = (I - S) + (G - Tx)$$

Higher inflation will likely boost saving by reducing consumption. As goods rise in price, household real income will likely decline. As S rises relative to I, assuming no change in the fiscal balance, imports should fall relative to exports.

There is one other factor that a trade deficit brings. As we noted above, former Fed Chairman Bernanke suggested that during the last decade the U.S. was dealing with a savings glut that was keeping Treasury rates lower than would be expected with the FOMC tightening policy at the time. When a nation runs a trade deficit, it's really importing foreign saving. If a nation is in need of investment and can't generate it domestically, these inflows are supportive. However, if there is a lack of prudent investment opportunities, the inflows can lower interest rates and spur imprudent behavior.



This chart shows real home prices and foreign flows. Although the relationship prior to the mid-1990s was not overly strong (+56.5%), from 1995 to the present it increases to 81.5%. Although the housing bubble wasn't just due to the savings glut, it does appear that it was a contributing factor.

Obviously, some of this is due to the dollar's reserve currency status. By being the global importer of last resort, the U.S. is open to trade and thus will face foreign inflows. Unfortunately, as the U.S. economy's relative size to the world economy contracts, the potential increases for these inflows to distort American financial markets and cause "bubbles."

If the U.S. reduces its trade deficit, what happens to the rest of the world?

In the 1920s, it was becoming apparent that Britain was struggling to maintain its role as the global importer of last resort. The dollar was becoming the *de facto* reserve currency but the U.S. did not want the burdens that accompanied that role. In response to a rapidly weakening economy, the U.S. passed the Smoot-Hawley tariff. Other nations retaliated and global trade contracted.

The 1930s showed that nations that were net exporters tended to struggle more than net importers. During WWI, the U.S. had become a major exporter and wanted to maintain that position. At the same time, the world wanted dollars and tried to acquire them by exporting to the U.S. The trade war reduced U.S. exports.

Exporting nations often have excess productive capacity. As growth slows, this capacity acts as a drag on future investment. For importing nations, there is often a general lack of productive capacity. When trade impediments become widespread, importers tend to build capacity which boosts investment. This is usually accompanied by higher inflation which reduces real income and lifts saving to fund the investment. This investment may prove to be less efficient than what is available overseas. Nonetheless, it does boost the importer's economy. The Depression years showed that exporting nations tended to face greater struggles.

Accordingly, if the U.S. decides to forcibly reduce the trade deficit through tariffs and quotas (or by depreciating the dollar), the outcome will likely be higher inflation but more employment. On the other hand, the world's major exporters—China, Germany and Japan—would likely face a significant slowdown in growth.

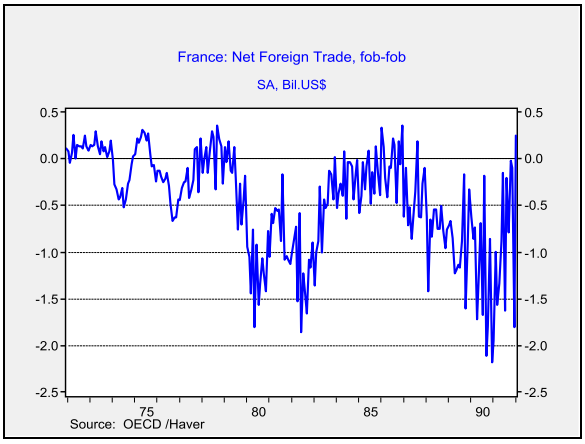
Wouldn't adopting this position on trade signal an end to the superpower role?
Perhaps. Or the U.S. could force foreign nations to build productive capacity in the U.S. to reduce the trade deficit. Although that may increase the trade deficit in the short run, it would create jobs in the U.S.[21]

(M - X) = (I - S) + (G - Tx)

Again, using the saving identity, as I rises from foreign investors, and nothing else changes, foreign saving must fund it. However, once the investment is made, future investment becomes less necessary, increasing the odds that I<S in future years, reducing the trade deficit.

If the U.S. is no longer willing to act as the importer of last resort, the Japan Model of development probably no longer works. Although it isn't necessarily an end to the superpower role, it will change in ways that are difficult to predict and could create a world where we see the rise of regional hegemons that will more likely use some form of colonization to avoid the problems that come with excess productive capacity.[22]

So, how should we view a trade deficit or surplus?
Perhaps one of the biggest misunderstandings I have tried to address in this report is that having a trade deficit doesn't mean a nation is a country of spendthrifts, and running a surplus doesn't make a nation morally superior. The trade account is complicated. Sometimes, it becomes fairly clear that the behavior of a nation leads to a trade deficit. For example, in France during the early 1980s, François Mitterrand, a Socialist, ran on a platform of fiscal stimulus. The outcome was a rise in the trade deficit and little growth. As the chart below shows, the French trade deficit ballooned in the early 1980s after Mitterrand's stimulus mostly funded imports.



Again, using the saving identity, if G>Tx, and private saving fails to rise, the trade deficit must rise. Eventually, Mitterrand had to reverse these policies.

This example should be a cautionary tale for the Trump administration. The saving identity shows that if taxes are cut, either domestic saving must rise to offset the fiscal deficit or the trade deficit will rise. If the administration tries to prevent the trade deficit from rising either by tariffs or a rising dollar, domestic saving will have to rise. If incomes rise sharply due to rising domestic growth, the saving could be generated in such a way that the economy could still grow and fund the fiscal deficit.[23] However,

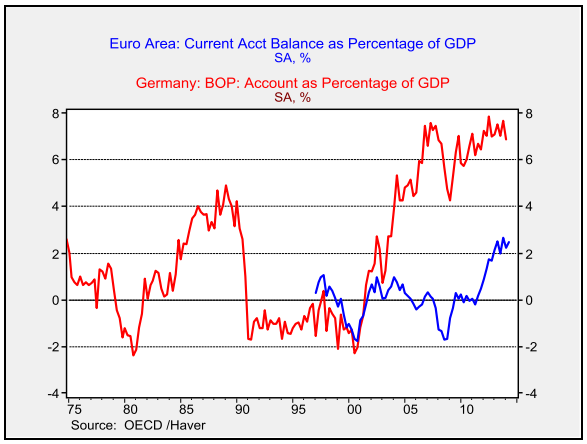
[21] President Reagan's "voluntary" import quotas on Japanese cars spurring Japanese automakers to source production in the U.S.

[22] A good article about this process is found at: https://www.nytimes.com/2017/05/02/magazine/is-china-the-worlds-new-colonial-power.html?emc=edit_tnt_20170504&nlid=56772670&tntemail0=y&_r=0.

[23] Interestingly enough, this is what happened in WWII. The government deficit soared as spending rose for the war effort. Household incomes rose too, but there was little to spend money on because of rationing. Household saving rose, not only

given that the tax cuts will mostly benefit the higher income brackets, it is quite likely that domestic saving will rise and be funneled into financial assets which would boost already aggressively priced financial markets.

Here is an example where a nation ran a trade deficit because other nations ran surpluses. A good case could be made that excessive German saving caused trade deficits in parts of the Eurozone that could not be resolved by depreciation. The trade deficit, or the rise in the flows of saving from Germany, led to housing bubbles in Spain and Ireland. The German position is that other nations need to restructure to become like Germany. The problem is that it begs the question—who will absorb the exports?



This chart shows the current account as a percentage of GDP for the Eurozone and Germany. Since the onset of the Eurozone in 1999, Germany has been running a very high current account surplus. Until the Great Financial Crisis, the Eurozone mostly experienced a balanced current account or a slight deficit. Since the onset of various debt crises in Europe, the entire Eurozone is now running a current account surplus.

funding the war effort but also paying back household debt.

Again, this only works when "somebody" (read: the U.S.) absorbs the exports.

We may be reaching the point where the U.S. is unwilling to continue providing the reserve currency due to the distortions it causes to U.S. financial markets and the inequality it causes. If that is the case, the world economy is vulnerable to a trade shock.

Ramifications

The ramifications for markets are complicated. But, there are a couple of trends that appear most likely to occur.

The Japan Model may not be sustainable.

The Japan Model of development has clearly been the most successful development model in the postwar era. Because there is a tendency to moralize trade (surpluses are evidence of superiority), it is assumed by many that this model works because citizens do the right thing and save (another individual virtue that suffers from the fallacy of composition). Although the model is often characterized as "export promotion," it is probably better thought of as "investment promotion"; it only works if there is an active "importer of last resort." If the U.S. decides to no longer support that role in a fashion consistent with the postwar period, nations using this model will be faced with difficult choices. One is to accept long-term stagnation due to overcapacity; this is what Japan has done. The other is to follow the time-honored path of imperialism, which China may be attempting. Of course, colonialism needs American acceptance as well. It remains to be seen if the U.S. will allow the return of imperialism. If the Japan Model is no longer feasible, everything we know about development and emerging markets has to be reexamined. This doesn't mean that one shouldn't invest overseas, but the risk metrics may be different than

expected…in other words, there may be more risk there than is currently being discounted.

If the U.S. decides to actively reverse the trade deficit, inflation is the most likely result. Although the U.S. could reduce the trade deficit by running fiscal surpluses, it is highly improbable that this outcome would be adopted. Thus, raising domestic saving in order to reduce the trade deficit will likely require falling real wages which would constrain consumption. Higher inflation would be the mostly likely way to reduce real wages. Higher inflation will, over time, lift long-duration asset yields and weaken prices. In other words, long-term rates will rise and P/E multiples will contract.[24] Simply put, policies designed to narrow the trade deficit are not friendly to capital in general.

Trade isn't really a bilateral exercise and treating it that way becomes a game of "whack-a-mole." If the goal of policy is a narrower trade deficit, the avenues to accomplishing that goal include boosting saving by cutting government spending, raising taxes and reducing consumption or investment. However, if the real goal is to coerce changes in behavior from individual nations, then selective tariffs and currency appreciation will work but just won't change the trade account. In other words, if we target China for tariffs but don't address the saving identity then other nations will replace the imports lost from China.

Taxing consumption might be the best way to reduce the trade deficit. Raising the cost of consumption would likely lift saving. However, that may not make citizens happy and for the reserve currency provider to tax in this fashion would be profoundly detrimental to the world economy. Reducing the trade deficit is really an exercise in boosting domestic saving. Such policies, commonly called "austerity," are not popular. In the end, the political classes really want jobs for their citizens. Trade restrictions may not be the best path to achieve that goal.

Finally, in broad terms, there are three classes in any economy—labor, capital and consumers. All of us fall under the third category, but are also divided between the first two categories. It is difficult to craft policies that favor all three categories; usually, one or two benefit, while one is adversely affected. Trade tends to support the interest of capital and consumers, but can hurt labor. Restricting trade can hurt capital and consumers, but helps labor. There is some degree of confusion around this concept. It is commonly asserted that trade helps "everyone" through lower prices. Although that is usually true, if one loses one's job to imports, low prices aren't much comfort.

Low inflation tends to help all three categories but it mostly helps consumers and capital. During equality periods, where labor tends to be supported, firms tend to pass along price increases. Thus, consumers tend to suffer from rising prices. If U.S. policymakers back away from free trade toward protectionism, prices will tend to rise. This will, at least in nominal terms, benefit labor but harm consumer interests. In a sense, it is trading weak labor markets for inflation. That is the "trade" we are monitoring.

Bill O'Grady
May 2017

[24] Usually, earnings rise in nominal terms and equities tend to outperform bonds in a rising inflation environment.

Confluence Investment Management LLC

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