

COMMENTARY



CHINA FINANCIAL MARKETS

# Will a Smaller Fiscal Deficit Cause the Trade Deficit to Decline or Unemployment to Rise?

In a recent much-remarked-upon and very short op-ed, George P. Shultz and Martin Feldstein argue that the only way, or at least the best way, to cut the U.S. trade deficit is for Washington to cut the U.S. fiscal deficit. It is at least as likely, however, that cutting the fiscal deficit will simply increase debt or increase unemployment.

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On May 5, George P. Shultz and Martin Feldstein explained, according to the headline of their *Washington Post* article, “everything you need to know about trade economics, in 70 words.” Shultz is a former U.S. secretary of labor, treasury, and state, and Feldstein, whose recent article in *Project Syndicate* I wrote about in a *Bloomberg* piece two weeks later, is a professor of economics at Harvard University, former chairman of the Council of Economic Advisers, and president of the National Bureau of Economic Research.

Here are the seventy words:

*If a country consumes more than it produces, it must import more than it exports. That's not a rip-off; that's arithmetic.*

*If we manage to negotiate a reduction in the Chinese trade surplus with the United States, we will have an increased trade deficit with some other country.*

*Federal deficit spending, a massive and continuing act of dissaving, is the culprit. Control that spending and you will control trade deficits.*

## The Mainstream View: The Savings Account Drives the Capital Account

This view is also the mainstream view, but it is based on implicit assumptions concerning trade that I would argue have become obsolete. The model Shultz and Feldstein use is the same model, on the surface, that I and most other trade economists use, and is built around accounting identities that can never be violated. However, accounting identities do not tell us the direction in which causality flows, and so all identity-based arguments must implicitly make assumptions about which of the variables drive the other. This is where these arguments can get terribly confused.

U.S. investment exceeds U.S. savings, and the United States runs a trade deficit that is by definition equal to the gap between investment and savings.<sup>1</sup> It also runs a capital account surplus equal to the gap because this is the amount of net foreign capital inflow that bridges the gap and the trade account and the capital

foreign capital inflow that bridges the gap, and the trade account and the capital account for any country must always balance to zero. So far there is no disagreement here.

Total U.S. savings, of course, consist of the sum of household savings, business savings, and government savings. Governments usually spend more than they receive in revenues, and the fiscal deficit is a measure of this excess, or of government dissaving. Reducing the fiscal deficit, according to Shultz and Feldstein, causes total U.S. savings to rise, and as total U.S. savings rise, the gap between U.S. savings and U.S. investment must fall, bringing down both the capital account surplus and the trade deficit. This is why Shultz and Feldstein claim that cutting the U.S. fiscal deficit would cause the U.S. trade deficit to fall.

We can state these as formulae:

Trade deficit = Capital account surplus = Total investment – Total savings

Total savings = Household savings + Business savings + Government savings

And because the fiscal deficit is simply the negative amount of government savings, the second formula becomes:

Total savings = Household savings + Business savings – Fiscal deficit

Combining everything, we are left with:

Trade deficit = Total investment – (Household savings + Business savings – Fiscal deficit)

## Which Is the Independent Variable and Which Dependent?

Here is where it starts to become messier. According to Shultz and Feldstein, household savings, business savings, and the fiscal deficit are all more-or-less independent variables. Total investment is also an independent variable. All four are determined by other conditions that might include the level of interest rates, the growth in household income, the tax rate, and so on.

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To be sure, they are not wholly independent of each other, and there is some feedback among them. For example, we can easily argue that U.S. businesses and households watch and worry about the U.S. fiscal deficit, and as the fiscal deficit declines, the confidence of U.S. businesses and households will rise and encourage them to spend more. Alternatively, we can argue that the fiscal deficit creates stronger demand in the economy, and a reduction will cause U.S. businesses and households to spend less. This complicates the argument somewhat, but we can safely ignore these linkages without changing the thrust of the argument, and so we will ignore these effects and assume that the four accounts can be independent of each other. Relaxing this assumption has no effect on the underlying argument.

If we accept the four as independent then it is obvious what happens if we increase one of the three savings accounts. For example, if we reduce the fiscal deficit, total savings must rise, in which case the gap between savings and investment must decline with that both the capital account surplus and the trade deficit must decline.

That is the nub of the claim Shultz and Feldstein make. They argue that if we cut the U.S. fiscal deficit, the U.S. trade deficit must automatically decline.

### **Specifying the Assumptions**

There are two important assumptions that must be true if Shultz and Feldstein are right, which lead to the third bullet point below:

- First, U.S. household, business, and government savings are determined independently as a function of the savings preferences of each relevant sector.
- U.S. investment is determined independently as a function of interest rates, confidence, economic prospects, and so on.
- Because the capital and trade accounts are wholly defined by these four independent variables (the three savings rates and the investment rate), they are the dependent variables and they automatically adjust to balance U.S.

investment and savings as these change.

## Today's Trade Regime: The Capital Account Drives the Savings Account

The reason I call their view the mainstream view is because most people accept implicitly the idea that the three savings rates and the investment rates are the independent variables, and that the capital and trade account automatically adjust to balance them. This is just a way of granting the U.S. economy autonomy.<sup>2</sup>

But there is almost immediately a problem. If U.S. investment exceeds U.S. savings, then by definition the savings of the rest of the world exceeds their investment by exactly the same amount. Savings and investment, after all, must balance globally. If the U.S. determines its own investment and savings rates, then it must determine both the excess of U.S. investment over U.S. savings and the excess of foreign savings over foreign investment. Does this mean that the U.S. determines foreign savings rates? (I'll get to why we must focus on savings rates, and not investment rates, later.)

China, Germany, and Japan together have among the highest savings rates in the world and together account for the bulk of the savings excess, not because their households are ferociously thrift but rather because very deep distortions in the distribution of income have left households in each country with much lower shares of GDP than in countries like the United States, and so they suffer from deficient domestic demand. It is very clear, in other words, that they have large excesses of domestic savings because of very specific domestic conditions, and so it is far easier to argue that their domestic conditions determine their domestic savings rates than it is to say the same in the United States, and yet the sum of all excesses of investment over savings in trade-deficit countries is exactly equal to the sum of all excesses of savings over investment in trade-surplus countries. There are only two ways to explain this:

- Except for very small countries that can treat the world as an essentially infinite source of external demand and supply, the savings and investment rates of most countries, and certainly of all large countries, must be

determined jointly subject to the requirement that the global balance of trade must balance. Either savings and investment rates in the rest of the world are determined by the United States, or savings and investment rates in the United States are determined by the rest of the world, or each determines the other, but both sides cannot be autonomous.

- Mercury, the god of commerce, or perhaps it is Ganesh, is extraordinarily busy, spending all his time managing trade, investment, and savings, country by country, with such precision that at every single point in time, by what seems an astonishing coincidence, all the savings rates and all the investment rates in each of hundreds of more-or-less autonomous economic entities in the world balance out perfectly.

For those agnostics who think it is the former, the idea that American savings rates might be determined by foreigners seems shocking, but bear with me. In order for this to be the case, it turns out we only need to make two assumptions:

- The U.S. capital markets are completely open to foreigners.
- They are deep, flexible, and liquid enough that foreigners can automatically turn to the U.S. market to meet their financing needs.

## Are U.S. Financial Markets the Global Shock Absorber for Capital?

I have already explained how this works in several essays, including recent blog entries on [Mexico's role in the U.S. trade imbalances](#) and on how the [U.S. trade deficit affects](#) the U.S. economy, along with my most [recent Bloomberg article](#). History certainly does seem to suggest that [U.S. capital markets are essentially shock absorbers](#) for capital flow requirements around the world. The U.S. economy moved to the center of the global trade and capital regime about a century ago, and during roughly the first five decades of that period, the global economy was characterized by two world wars and urgently needed investment to rebuild infrastructure, agriculture, manufacturing, and logistics. This was a time, however, in which income in most rich countries had been devastated by war, making scarce the savings needed to rebuild the global economy. The world

urgently needed savings and the United States, the only major economy not devastated by war, accommodated this need by running the largest trade surpluses in history along with the largest capital account deficits (that is, it exported net savings). Capital inflows into Europe and Japan allowed investment to rise, and rising investment powered growth.

By the beginning of the second decade, however, during the 1960s and 1970s, the economies of the rich countries had been substantially rebuilt and income soared above pre-war levels. The global economy no longer suffered from scarce savings, and it was now demand, not capital, which it urgently needed. It was around this time the U.S. capital account swung into more-or-less permanent surplus, and the trade account into deficit, as a way of accommodating global needs.

This is why the United States has been at the center of the global trade and capital regime, and why, as I explain in [my December 6 essay](#), if it withdraws, the alternative is not a new system centered on China but rather the disappearance of an orderly global trade regime. All around the world, including in the United States, investment decisions are made that determine the direction of vast amounts of capital flows. During periods of excess liquidity or excess global savings (or, to put it differently, of deficient demand), especially when central banks are accumulating vast hoards of reserves, the excess savings have to end up somewhere, and this ultimately means that excess savings flow into the U.S. financial markets, leaving the United States with a capital account surplus and its obverse, a current account deficit.

## The Obsolete Trade Regime

It wasn't always this way. For much of the nineteenth century, the United States also ran trade deficits and capital account surpluses, but while there were already capital flows driven by investors making independent decisions about where to park their money, roughly 90 percent of the international business done by London banks consisted of trade finance. In those days when imports exceeded exports, either the deficit country would ship abroad some monetary asset—probably gold or silver—or it would borrow the difference. Typically, in the old days, the importer would have asked his bank to issue a letter of credit, and this



would be sent to and accepted by the foreign exporter's bank. In that case, as we can plainly see, the capital account (that is, the loan that flows from the exporting country to the importing country) is simply a residual. It exists because of the trade imbalance.)

That is not how capital flows work today. Around the world, foreigners are investing money in the United States based on decisions that have nothing to do with financing trade. These include the Chengdu billionaire eager to take his money out of China, a bond manager in Edinburgh, a Japanese car manufacturer looking to build a factory in Michigan, an Australian company acquiring the marketing savvy of a Brooklyn high-tech start-up, or any of a thousand other foreign investors making decisions to buy stocks, bonds, real estate, or production and logistic facilities in the United States. In a world of excess savings, inevitably the bulk of capital flows settle in the least resistant market—and that is the United States.

## What About Investment?

The argument made by Shultz and Feldstein depends on another implicit assumption, and this has to do with investment. They assume that in the United States, *desired investment* is broadly in line with *actual investment*. It's not that there are no good investments that urgently need to be made in the United States—it certainly needs better physical infrastructure, as by now nearly everyone knows, but this isn't what I mean by *desired investment*. I simply mean that American businesses or governments are fully able to fund all investments on their own merits.

In developing countries, it is often hard to raise the funding needed to make investments in infrastructure or manufacturing because local savings levels are too low, and foreigners have a very limited appetite for bringing money into the country and will only do so at very high rates. That is not the case in any developed country and certainly not the case in the United States. American businesses and governments are able to borrow as much money as they want at extremely low rates as long as they are creditworthy. In fact, one of the problems today is that many companies around the world, and especially in the United



States, are sitting on massive piles of cash and seem to have no interest in investing anywhere.

## What Happens If the U.S. Fiscal Deficit Is Cut?

Let us return to the Shultz and Feldstein equation:

Trade deficit = Total investment – (Household savings + Business savings – Fiscal deficit)

According to this, if the fiscal deficit declines, total savings will rise, and because investment will be unaffected, inevitably the trade deficit must decline. But this also means the capital account surplus must decline. If it doesn't, there is no way the trade deficit can decline because they are equal by definition.

But will it? If the United States is running a capital account surplus mainly because the world is awash in excess savings, then it is unlikely that a cut in the fiscal deficit will cause a drop in the U.S. current account surplus. In fact, if investors are worried at all about the U.S. fiscal deficit, then if anything a cut in the deficit will cause even more money to enter the United States, and if the U.S. capital account surplus rises, then so must the U.S. trade deficit, which is the opposite of what Shultz and Feldstein claim.

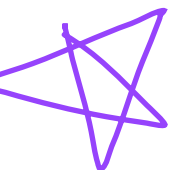
## The Different Impacts

This turns out to be a lot more complicated than seventy words permit. With just one or two very reasonable assumptions, the recommendation by Shultz and Feldstein—to lower the trade deficit by cutting the fiscal deficit—could seriously backfire. Rather than reduce the trade deficit, it might simply raise unemployment.

In order to show the range of things that can happen if the U.S. fiscal deficit were cut by \$100, here is the best I can do working in only two dimensions:<sup>3</sup> There are two key sets of assumptions. The first is about whether or not savings are scarce in the United States—if they are, *desired investment* exceeds *actual investment*. I believe they are not, and I think Shultz and Feldstein agree with me.

The second assumption is about whether the capital account simply adjusts to balance the trade imbalance or is determined independently by foreign and U.S. investors. I believe it is the latter, with U.S. and foreign investors moving capital around the world and leaving the United States with a capital account surplus. I don't know what Shultz and Feldstein would say they believe, but implicitly they must believe that the capital account is driven primarily by the need to finance the trade imbalance.

There are four different sets of assumptions you can have, in other words, and depending on which set is true, this is what happens if the U.S. government were to cut the fiscal deficit by \$100:



	Desired investment exceeds actual investment	Desired investment is broadly in line with actual investment
The U.S. capital account is driven by trade, and mainly reflects the need to finance the deficit.	It's hard to say whether or not the trade deficit will decline. If the fiscal deficit is crowding out investment, cutting it will cause investment to rise, and it might rise by the full \$100, in which case both savings and investment will rise by enough to have no impact on the trade deficit. In this case, the United States runs a "good" trade deficit, driven by higher investment, not lower savings.	Shultz and Feldstein are mostly right. The trade deficit will decline, but by less than \$100 if cutting the fiscal deficit causes consumption or private sector investment to rise (by increasing confidence, perhaps) or to fall (by reducing government spending). Unemployment is largely unchanged, but it could be lower or higher, depending on how the cut in the fiscal deficit affects the economy.
The U.S. capital account is driven mainly by the independent decision of foreign investors to invest excess global savings.	The U.S. trade deficit will not decline, and may even rise if it causes foreign confidence in the U.S. economy to rise. This is a great outcome for the United States because investment must rise by at least \$100, and by even more if foreign inflows rise.	The U.S. trade deficit will not decline, and may even rise if it causes foreign confidence in the US economy to rise. This is a terrible outcome for the United States because savings must fall by at least \$100, and by even more if foreign inflows rise.

Shultz and Feldstein are in the top right box, in which a cut in the U.S. fiscal deficit will cause a broadly commensurate cut in the U.S. trade deficit with no overall change in GDP growth. I am in the bottom right box, in which a cut in the U.S. fiscal deficit will cause no change in the U.S. trade deficit because it will be matched by a decline in household savings as unemployment rises, as consumer debt rises, or both. This leaves the United States worse off.

The best case is the top left box, where a cut in government spending will “crowd

in" a commensurate increase in private investment. This is typical of an economy subject to scarce savings, like the United States during much of the nineteenth century.

## Conclusion

I apologize if this blog entry is a little disordered, but I started writing it quickly and wanted to pump it out before I went off on a business trip. The general discussion about trade is incredibly confused, with very intelligent people saying very different things, but this disagreement occurs not because we don't understand how trade works but rather because we fail to clarify our assumptions. George P. Shultz and Martin Feldstein are brilliant economists and fully understand trade, but perhaps for that reason they hurry a little too quickly over their assumptions.

The two key assumptions are about what drives the capital account and whether or not savings are scarce (that is, whether or not *desired* investment exceeds *actual* investment). If you believe that trade is independent, and the capital account is simply whatever it takes to balance trade, then anything that affects domestic savings or domestic investment will work its way through the capital account. You can easily work out the trade implication of policies that change government savings, business savings, or household savings.

If savings are scarce, changes in the savings rate will directly affect the investment rate in the same direction, so that the net effect on the trade and capital accounts will be negligible. If savings are not scarce, changes in any part of the savings rate will have a limited impact on investment, if any, and so they will force corresponding changes in the trade account and the capital account.

## Notes

<sup>1</sup> Actually the gap between investment and savings is by definition equal to the current account, not the trade account, which is simply part of – usually the largest part of – the current account, but we will ignore the difference between the current account and the trade account to keep things simple. In fact doing so will have almost no bearing on the actual argument and will not affect any of its

conclusions.

<sup>2</sup> It allows us to feel indignation at our fellows, and to say foolish things like: “Americans (Spaniards, Italians, Germans before 2003, South Koreans between 1995 and 1997, and so on) are spendthrift. No one put a gun to their heads and forced them to buy that flat-screen TV.”

<sup>3</sup> I should stress that this analysis ignores both dynamic and second-order effects. By dynamic effects, I mean the impact policies will have on the long-term evolution of the economy; for example, if you cut the fiscal deficit, that may cause a qualitative change for better or for worse in the economy in the long run. By second-order effects, I mean whether cutting the deficit will in the short run increase other forms of investment and consumption demand by increasing confidence or reduce other forms of investment and consumption demand by reducing spending.

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