POLICY BRIEFS
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Title: The Effects of Tariffs on the U.S. Economy
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Abstract: The U.S. is considering tariffs on imports of steel and aluminum. This brief analyzes the effects of tariffs on our production of goods and services, and on employment, inflation, interest rates and exchange rates.

Some Trade Economics

Suppose we impose a tariff on imported steel and aluminum. Imports become more expensive, so U.S. businesses buy more U.S. produced metals. Production and employment increase in U.S. steel and aluminum firms. This benefits communities with economies based on these industries.

Manufacturers that buy steel and aluminum pay higher prices if they continue to buy imported metals. Prices of U.S. produced metals would rise too, because competition from imports would be lessened, and demand for U.S. metals would increase. Higher steel and aluminum prices raise costs for manufacturers, which are passed on to consumers in higher product prices. Higher costs also may cause manufacturers to cut production and employment. This is detrimental to communities with economies based on these industries. Declining sales and employment in manufacturing offsets added employment in aluminum and steel.

We export goods that we produce more efficiently, and we import goods that our trading partners produce more efficiently. If we import less we must replace these goods with our own production. So we shift production away from more efficient industries. To illustrate, we could give up producing an airplane and shift those workers to making shoes. We could make a lot of shoes. But we can get even more shoes trading an airplane for them. That's because while we're good at making shoes, we are very, very good at making airplanes. If we shift our production from airplanes to shoes, overall productivity declines, so U.S. output grows more slowly.

We import goods from other countries. We exchange our dollars for their currencies in order to buy imports. Now foreigners own dollars. What do they do with them? Some dollars are

used to buy U.S. goods. Those are our exports. Some are lent back to us, for business investment and home mortgages, and to pay for our Federal government's budget deficit. And some dollars are used to buy U.S. assets, like stock, farmland, or even whole companies (for example, Colombia Pictures and Anheuser-Busch Brewery).

If we reduce our imports with tariffs, we exchange fewer dollars for foreign currencies. Dollars become scarcer in currency markets, so the price of dollars—the exchange rate—goes up. Tariffs should increase the exchange value of the dollar. That makes U.S. exports more expensive, and U.S. imports less expensive. As a result, our trading partners buy fewer U.S. exports, and we buy more foreign imports. The higher exchange rate works against the effects of the tariff.

With dollars scarcer in currency markets, fewer dollars will be lent back to us. Interest rates will rise on business investment, for home mortgages and to finance the Federal deficit. Higher interest rates will discourage investment spending and home construction. Federal government borrowing is more likely to "crowd out" private investment, because it must be financed by U.S. lenders. These effects could be partly offset if the higher interest rates encourage more household or business saving.

With dollars scarcer in currency markets, fewer dollars will be spent on U.S. assets. Stock values and land values may decline.

Our trading partners will retaliate with tariffs on U.S. goods. Foreign tariffs may be targeted at communities represented by leaders who support the U.S. tariffs. This will reduce U.S. exports, reducing production and employment in the targeted industries.

Gains and Losses

The U.S. has tried steel tariffs before. In March 2002 President George W. Bush imposed tariffs on a broad range of imported steel products, directed primarily at China, Europe and Japan. Read reviewed several studies of the impact of these tariffs. All found a net negative effect on output and employment. The effects were small, however. The US International Trade Commission put the net loss to GDP at $30 million, a tiny fraction of total GDP. Effects within industries were larger, with positive effects on the steel industry and negative effects on steel-consuming industries such as motor vehicles and other manufacturers.

The World Trade Organization found the steel tariffs to be illegal, and authorized retaliation by U.S. trading partners. The tariffs were abandoned in December 2003.

Budget Deficits, Trade Deficits and Investment

The economics of trade implies a relationship among balances. The trade balance equals the balance of savings minus investment, plus the government's budget balance. For example, if the government spends more than it collects in taxes, then the borrowing to fund

that budget deficit must come from U.S. savings or from international lenders. If there is a budget deficit, and if U.S. savings are used for U.S. investment, then we *must* run a trade deficit. Foreigners must earn enough dollars from U.S. imports above the exports that they buy, so that they can lend to the U.S. government. One reason for the U.S. trade deficit, then, is the growing U.S. budget deficit.

The December tax cut is likely to increase the budget deficit. More borrowing will be needed. Tariffs would reduce the dollars available for foreigners to lend. This combination should cause interest rates to rise, which would balance the trade equation by reducing investment spending. Tariffs would cause the rising budget deficit to "crowd out" more business investment.

Retaliation

Our trading partners are certain to retaliate with tariffs of their own, and to target the constituents of the leaders who support the U.S. tariffs. When the steel and aluminum tariffs were first announced, the European Union threatened tariffs on "products from bourbon to jeans, motorcycles to orange juice." Bourbon is distilled in Senator McConnell's state, jeans are made in Representative Pelosi's district, motorcycles are made by the people Speaker Ryan represents, and orange juice comes from Florida, always a Presidential swing state. European countries have since been exempted from the tariffs. China has threatened tariffs on agricultural products, including pork, soybeans, fruit, and wine, on sport-utility vehicles and smaller passenger planes, and on many other products. This would reduce demand for these products from the U.S. and raise consumer prices in China.

The China Problem

China has emerged as an economic power, and the rest of the world has had to adjust. China's development strategy since the late 1970's has been to invest in infrastructure and manufacturing, and to increase its exports to the rest of the world. For many years China manipulated the value of its currency, holding down the exchange value of the yuan. This encouraged U.S. imports from China and discouraged exports to China. More recently China has been supporting the exchange value of the yuan, to keep its exchange value from falling.

Imports from China have meant lower prices for U.S. consumers. U.S. interest rates have been lower as China lent its dollars for U.S. mortgages and to fund the budget deficit. But Autor, Dorn and Hanson have found reductions in employment in U.S. industries that compete with imports from China. Employment gains are to be expected in exporting industries, but labor market adjustments have been "stunningly slow" according to these researchers. Most of the reduction in manufacturing employment has been from technological advances that have improved productivity, but the "China shock" contributed.

Agriculture

Purdue agricultural economists Taheripour and Tyner used a sophisticated model of the world's economy to project the effect of Chinese tariffs on U.S. soybean producers. A tariff of 25 percent on U.S. soybean exports to China percent would reduce total soy exports by 37 percent, reduce total soybean production by 15 percent, and reduce soybean prices by 5 percent. Meanwhile, Brazil, another large soybean exporter, would see higher prices and incomes as China turns to alternate sources of supply.

The Effects of Tariffs:

- Increased production and employment in the protected import-competing industries, to the benefit of the communities that these industries support.
- Decreased production and employment in the manufacturing industries that must pay higher costs, to the detriment of the communities that these industries support.
- Higher prices on manufactured goods for consumers.
- A rise in the exchange value of the dollar, reducing U.S. exports and increasing U.S. imports. This works against the effect of the tariffs on the trade deficit.
- An increase in interest rates, reducing business investment and home construction, though this may be offset by added savings.
- More crowding out of private investment from the Federal budget deficit, as more of it must be financed from U.S. lenders. This is offset slightly by added tariff revenue for the government.
- Reduced prices for U.S. stocks, land and other assets.
- Higher tariffs on U.S. exports in retaliation, probably politically targeted. Exports, production and employment are reduced in targeted industries.
- Decreased U.S. productivity.
- Total effects on gross domestic product are likely to be negative but small. Effects will be larger on individual industries like steel, automobiles and targeted agricultural commodities.

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