More protectionism leads to less macroeconomic output

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The tariffs imposed by the United States and China are sparking debate about the macroeconomic impact of protectionism


US Treasury Secretary Steve Mnuchin during the IMF/World Bank spring meeting in Washington (Reuters/Yuri Gripas)

The IMF-World Bank Spring meetings concluded in Washington DC yesterday with US Treasury Secretary Steven Mnuchin expressing cautious optimism about trade negotiations between the United States and China. The US administration has withdrawn from the Trans-Pacific Partnership (TPP), threatened punitive tariffs against several trading partners and started renegotiating the North American Free Trade Agreement (NAFTA). Moreover, the United States has suggested imposing a 25% tariff on up to 150 billion dollars of the products it imports from China, having already initiated tariffs on its imports of steel and aluminium. Retaliation from China could lead to a full-blown trade war.

What next

Recent research shows that contrary to textbook analysis, increasing tariffs can lower economic activity in the short run. Modelling 15 small open economies from 1996-2014 shows that while the trade balance shows a small improvement, the negative impact on GDP growth and inflation is much larger. Increasing the average applied tariff rate by 1.2 percentage points (pp) reduces growth by about 0.3 pp and increases inflation by about 0.4 pp within two years.

Subsidiary Impacts

- Protectionism results in exchange rate appreciation, reducing the cost competitiveness of a country's exporters.
- In a crisis, rates may be near zero and tariff-induced inflation would reduce real rates further; even in this case, demand falls overall.
- Protectionism can have negative effects even under a fixed exchange rate regime.

Analysis

The use or threat of protectionism has increased substantially over the last 18 months. One of the reasons policymakers often cite is a desire to boost macroeconomic performance.

Indeed, this is central to the 'Made in America' campaign. The administration of US President Donald Trump has withdrawn from the TPP, stalled the negotiations of the Transatlantic Trade and Investment Partnership (TTIP), started renegotiating NAFTA, imposed tariffs against several trading partners including Canada, South Korea and China, and threatens more, especially against China (see INTERNATIONAL: Protectionism is building momentum - July 17, 2017).

Studying the short run

The negative consequences of protectionism have been extensively studied in the economic literature but usually focus on long-run outcomes. Implicitly, it is often presumed that in the short run, higher tariffs can boost domestic economic activity.

The argument is that by increasing the relative price of imported goods, consumers will purchase more of the domestic goods, therefore raising domestic output and employment (the so-called 'expenditure switching' effect). This often explains policymakers' appetite for protectionism.

New research suggests that tariffs sharply reduce output in the short run

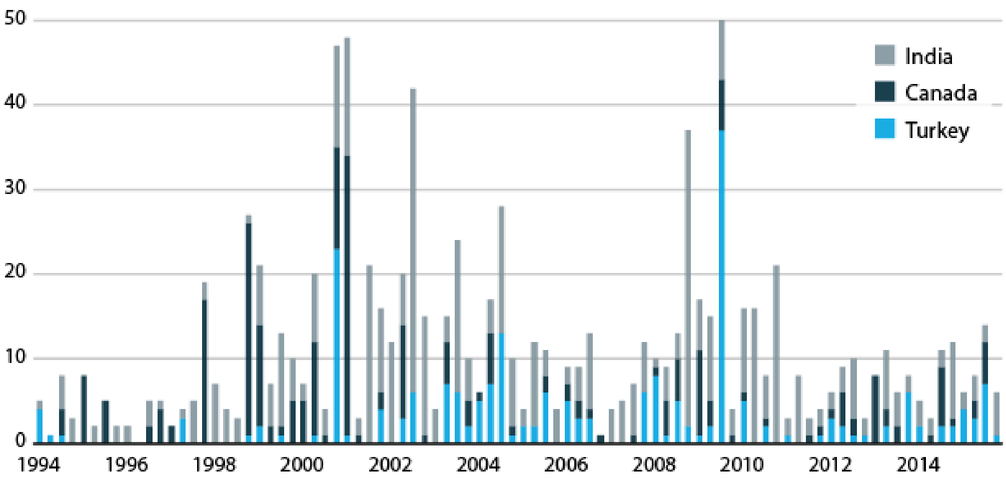
Research into anti-dumping initiatives

However, recent research fundamentally challenges this argument. The 2018 paper 'Protectionism and the Business Cycle' [paywall], by A Barattieri, M Cacciatore and F Ghironi, provides the first empirical and theoretical assessment of the macroeconomic impact of protectionism in the short run.

The authors exploit high-frequency trade policy data from the Global Anti-dumping Database (GAD). Anti-dumping investigations are the most used form of temporary trade barriers that are allowed under WTO rules. Such investigations are initiatives against foreign predatory pricing and typically lead to tariffs being imposed.

At monthly and quarterly frequency, the authors construct measures of anti-dumping investigations on small open economies that used these measures intensely from 1994-2015 (Canada, Turkey and India). The high frequency nature of the data allows the causal effects of protectionism on macroeconomic outcomes to be identified.

Anti-dumping investigations, 1994-2015 (number of investigations)



Source: 'Protectionism and the Business Cycle', by A. Barattieri, M. Cacciatore, and F. Ghironi, 2018

The main finding is that a temporary increase in anti-dumping initiatives raises inflation and reduces economic activity (as measured by quarterly GDP growth and monthly industrial production). The effects on the trade balance are positive but small.

Research into import tariff increases

The impact is very similar when a different measure of protectionism, the average applied tariff rate, is considered. Increasing the applied tariff rate by an average of 1.2 pp causes economic activity to decline by an average of 0.3 pp in a panel of 15 small open economies featuring a flexible exchange rate. Inflation increases by about 0.4 pp. The study covers the period 1996-2014.

These reduced-form estimates do not shed light on the reasons for the contractionary and inflationary effects of protectionism. To explore this, the authors build a state-of-the-art model incorporating rigorous trade micro foundations to replicate the study.

Modelling trade and macroeconomic dynamics

The modelling shows that the contractionary effects of protectionism arise from a combination of different forces. These forces more than offset the standard 'expenditure switching' effect:

- Higher tariffs increase the price of consumption goods, reducing aggregate demand for a given level of income.
- Imposing tariffs increases the price of imported capital goods, leading to lower investment and output.
- Higher tariffs mean lower-productivity firms charging higher prices can increase their market share, at the expense of lower-price, higher-productivity firms.
- Central banks are likely to react to higher inflation by increasing interest rates, creating an additional contractionary impulse.

The model highlights that the negative macroeconomic effects of protectionism are tightly linked to how the imported goods are used within an economy, how protectionism influences productivity, and how monetary policy is able to respond.

Other situations

The authors also consider scenarios in which tariffs are advocated as potentially beneficial, investigating protectionism in a liquidity trap where policy rates have reached the zero lower bound, and in countries operating within a fixed exchange rate regime.

The zero-bound scenario attracts attention in policy circles as the inflationary effects of temporarily higher tariffs will lower real (inflation adjusted) interest rates, boosting demand. However, the results show that the dominant channel in this scenario is still the mechanism of higher prices for consumption and imported capital goods reducing investment and output.

> Protectionism is not an effective tool to help countries escape a liquidity trap

The same intuition illustrates why protectionism also has a negative effect overall in economies operating under a fixed exchange rate. In this case, the lack of real exchange rate appreciation, and the corresponding larger trade surplus, are not strong enough to offset the decline in aggregate domestic demand.

Ecuador, a dollarised economy, is a good example. The country started accumulating a trade deficit and entered a recession after the oil price fell sharply in 2014. In March 2015, the government imposed temporary tariffs on around one-third of its imports. While the goods trade balance improved from a deficit of 1.7% of GDP in 2015 to a 1.6% surplus in 2016, in the same year real GDP fell by 1.6%, the first decline since 1999.

Outlook

The research shows that protectionism is not an effective tool to provide macroeconomic stimulus. The beneficial effects on trade deficits are small but the cost of lower aggregate activity is high. Moreover, if retaliatory actions escalate, and this has been threatened in recent weeks, the negative macroeconomic impact of protectionism could be much more severe (see INTERNATIONAL: US/China self-sufficiency is dangerous - April 4, 2018).