Tariffs, Economic Growth and Income Distribution

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Introduction

The United States has a huge trade account deficit—$753 billion in 2016. President Trump has asserted that a more restrictive trade policy which involves tariffs and quotas would help to achieve his goal of boosting U.S. economic growth to 3-plus per cent. On March 1, 2018, Mr. Trump announced unexpectedly that the U.S. would impose tariffs of 25 percent on steel imports and 10 percent on aluminum. He later twitted that "When a country (USA) is losing many billions of dollars on trade with virtually every country it does business with, trade wars are good, and easy to win." The World Trade Organization (TWO) immediately issued a rare warning about Trump's plan saying it risks a trade war. Do tariffs promote or hurt economic growth? This poster tries to shed some lights on this important question from both theoretical and empirical perspectives. If tariff-growth relationship is neutral or negative, then what are the consequences on income distribution—i.e., who are the winners and who are the losers?

Importance of Trade to Economic Growth: A Historical Perspective

The first age of globalization (from early 19th century to 1913)

Classical economists from Adam Smith to David Richado were among the adamant advocators for free trade. However, it was not until the early 19th century that a major turning point for world trade began to take hold. The arrival of the industrial revolution in the early 1800s finally triggered the massive expansion of trade, capital and technology flows across borders, introducing the first age of globalization. Along with the industrial revolution came steam power, the opening of the Suez Canal, railways, and electronic telegraphs. As a result, international trade increased rapidly after 1820. By 1913, the share of world exports in world GDP reached 7.9%, just before the First World War, a level which was not surpassed until the 1960s.

Re-globalization (end of WWII to present)

After the disruptions of the two world wars, the world economy has undergone a process of re-globalization. The world economy grew faster between 1950 and 1973 than it had done before 1913. This economic growth was accompanied by even higher growth in trade (see Table 1). International trade flows have increased dramatically over the last three decades. According to WTO trade statistics, the value of world merchandise exports rose from US$1.84 trillion in 1983 to US$15.5 trillion in 2016, which is equivalent to 7 per cent growth per year in current dollar terms.

Table 1
World Merchandise Exports and Shares of Top Three Exporters

Data Source: WTO World Trade Statistics Review 2017

Year	World ($ billion)	China (%)	US (%)	Germany (%)
1948	59	0.9	21.6	1.4
1953	84	1.2	14.6	5.3
1963	157	1.3	14.3	9.3
1973	579	1.0	12.2	11.7
1983	1839	1.2	11.2	9.2
1993	3,688	2,5	12.6	10.3
2003	7,380	5.9	9.8	10.2
2016	15,464	13.6	9.4	8.7

Trade Barriers Have Fallen Significantly

Many factors may have contributed to this remarkable expansion of international trade. One of them is the significant reduction in trade barriers, which include transportation costs and policy barriers (tariffs and non-tariff barriers).

Beginning in the mid-1980s, a number of developing countries moved to lower tariff rates and removed import quotas and other restrictions on trade. Today, the average tariff rate in the world is below 7%. The tariff rates for the developing countries have fallen from an average of more than 30% in the early 1980s to only about 10% today. In comparison, the tariff rate for the U.S. is around 3%, on par with other OECD countries (see Table 2).

Table 2
Tariff Rates in Selected Countries and the World

This period also witnessed the rapid economic takeoffs of four Asian tigers (South Korea, Taiwan, Hong Kong, and Singapore) and, more recently, of China and India.
Never before in human history have so many people experienced such a rapid rise in their living standards as billions of people are lifted off poverty.

Data Source: World Bank

Year	China	OECD	U.S.	World
1996	22.02	5.2	4.11	9.74
1997	16.66	5.66	4.16	10.79
1998	16.64	5.05	4.1	10.51
1999	16.34	5.68	3.68	10.19
2000	16.4	4.91	3.62	10.13
2001	15.39	5.1	3.55	9.68
2002	11.81	4.8	3.68	9.37
2003	10.69	4.84	3.32	8.27
2004	9.81	4.42	3.13	8.27
2005	9.24	3.8	3.07	8.01
2006	8.88	4.16	2.98	7.34
2007	8.79	3.68	2.83	7.05
2008	8.57	3.52	2.96	7.13
2009	8.07	3.68	2.87	6.9
2010	7.92	3.16	2.84	6.18
2011	7.82		2.95	
2012		3.19	2.93	6.8
2013			2.83	
2014	7.57		2.89	
2015	7.55		2.79	
2016	7.76		2.79	

Impacts of Tariffs on Economic Growth

The main argument for a positive tariff-growth relationship is the Laursen-Metzler (1950) effect which posits that tariffs improve the terms of trade to affect saving positively. However, Obstfeld (1982) showed that theoretical support for the existence of a Laursen-Metzler effect is fragile. In addition, empirical studies offer mixed results, with some studies rejecting the hypothesis of such an effect.

In the short run, in the absence of the Laursen-Metzler effect, the impact of trade restrictions on output is exactly offset by induced currency appreciation, leaving the relative price of domestic- and foreign-produced goods and, with it, output and employment unchanged.

For the long run, there is a stronger consensus among economists about the effects of external openness. That is, trade openness or free trade is positive for economic growth, while financial openness is more of a mixed blessing, in emerging markets and developing countries in particular, one should be embraced only when a country has reached a critical or threshold level of financial and institutional development (Largade, 2017) .

Winners and Losers of Trade Barriers

Contrary to the popular belief, the economic analysis of international trade does not assume that free trade is good for everyone. It is well understood that increased trade and openness can shift the distribution of income within countries and create losers as well as winners.
Autor, Dorn and Hanson (2016) argued that the rapid growth of Chinese exports after 1990, and especially after 2001, when China joined the WTO, created much more hardship in the United States than most economists had realized. They estimated that this "China shock" displaced, in total, around 1 million U.S. manufacturing jobs. Moreover, these job losses were concentrated in a relatively small number of regions and led to further job losses in those regions as demand for local services fell. This backdrop may partly explain the backlash against globalization that was visible in 2016, when Britain voted to leave the European Union and the United State elected a president with a strong protectionist bias; it also explains President Trump's recent announcement to impose tariffs on imported steel and aluminum.
Overall, tariffs are negative (or neutral at best) to economic growth. In the short run the US government might get more tax revenue; American steel and aluminum manufacturers will benefit from repressed foreign competition. But the biggest losers are the U.S. consumers. Studies have shown that tariffs likely impose a heavier burden on poor and middle-class Americans, as these households generally spend more on traded goods as a share of expenditure/income.