

Trade Restrictions and Economic Development: A Study of the Effectiveness of Trade Barriers

Mehdi MONADJEMI* and John LODEWIJKS

University of New South Wales Sydney, Australia

Countries pass through different stages of structural transformation. In the early stage of development, economic activity is dominated by agriculture and mining. As a country develops, firms adopt new technology and move toward industrialization and faster economic growth. Eventually, the society matures when political and economic institutions are well established, and the society moves towards mass consumption. In a matured economy, generally government interventions are replaced by privatizations in production and trade. Accordingly, international trade barriers are reduced as a country moves towards later stages of development. Recently the US government has moved against the trend by imposing tariffs on China's imports. There is a literature on positive effects of trade liberalization and economic growth. Not unsurprisingly, the Chinese government retaliated by introducing tariffs on US produced goods. For the time being, the result of this trade war on US and China's trade balance is unclear. However, this development has introduced excessive volatility and uncertainty in global financial markets.

Keywords: free trade, trade restriction, tariffs, economic development, economic growth, convergence, trade openness

JEL Classification: F10, F40, O10

1. Introduction

Most countries go through stages of structural transformation until they have self-generating economic growth and well developed political and economic institutions. Examples are the East Asian 'miracle economies. Many countries have tried to speed-up the transformation by imitating and catching-up to successful countries. Convergence in economics (also sometimes known as the catch-up effect) is the hypothesis that poorer economies' per capita incomes will tend to grow at faster rates than richer economies as they exploit the advanced technology opportunities open to them (Freeman, 1989).

Often, at the early stages of development where production and income are low, countries impose trade barriers to protect domestic infant industries. These trade barriers are reduced or removed at later stages of development. If not, domestic industries remain 'infants' relying on continual government support and protection and unable to compete internationally.

* Corresponding Author:

Mehdi Monadjemi, Visiting Fellow, School of Economics, University of New South Wales Sydney 2052 Australia and SP Jain Global

Article History:

Received 3 March 2020 | Accepted 27 March 2020 | Available Online 12 April 2020

Cite Reference:

Monadjemi, M. and Lodewijks, J., 2020. Trade Restrictions and Economic Development: A Study of the Effectiveness of Trade Barriers. *Expert Journal of Economics*, 8(1), pp.18-23.

Countries pass through different stages of structural transformation. In the early stage of development, economic activity is dominated by agriculture and mining. As a country develops, firms adopt new technology and move toward industrialization and faster economic growth. Eventually, the society matures when political and economic institutions are well established, and the society moves towards mass consumption. In this process of development, generally government interventions are replaced by privatizations in production and trade. Accordingly, international trade barriers are reduced as a country moves towards later stages of development. However, recently the US government has moved against the trend by imposing tariffs on China's imports. There is a literature on strategic trade policy and this appears a power play to reduce market access to improve a bilateral trade deficit. Not unsurprisingly, the Chinese government retaliated by introducing tariffs on US produced goods. For the time being, the result of this trade war on US and China's trade balance is unclear. However, this development has introduced excessive volatility and uncertainty in global financial markets.

2. Some Statistical Evidence

Except for Hong-Kong, which is tariff-free, all the advanced economies in Table 1, have imposed low tariffs. China and India have the highest rate of tariffs among the selected eight countries. But those tariff rates are not out of line with other developing countries.

Table 1. Tariffs in Developed and Developing Economies 2013 - 2018

	2013	2014	2015	2016	2017	2018
China	9.9	9.6	9.9	9.9	9.8	9.8
EU	5.5	5.2	5.1	5.1	5.2	5.3
India	13.5	13.5	13.4	13.4	13.8	17.1
Japan	4.9	4.2	4	4	4	4.4
Australia	2.7	2.7	2.5	2.5	2.5	2.5
US	3.4	3.5	3.5	3.5	3.4	3.5
Canada	4.2	4.2	4.2	4.1	4.0	4.0
Hong-Kong	0	0	0	0	0	0

Note: Data are average tariffs collected from the WTO web site. Tariffs are percentage averages during the year.

Table 2 presents tariffs rate for a selected group of developing countries. In all the selected countries, mainly from Latin Americans, the tariff rates are higher than the rates for developed countries presented in Table 1.

Table 2. Developing Countries and Tariffs

	2013	2014	2015	2016	2017	2018
Argentina	13.4	13.6	13.6	13.7	13.7	13.7
Brazil	13.5	13.5	13.5	13.5	13.4	13.4
Egypt	NA	16.8	16.8	17.9	19.1	19.1
Korea Rep.	13.3	13.3	13.9	13.9	13.7	13.9
Venezuela	13.3	12.9	12.9	12.7	13.8	13.8
Uruguay	10.5	10.5	10.5	10.4	10.3	10.3
Ecuador	NA	11.9	11.9	12.3	12.2	12.3

Note: Data are average tariffs collected from the WTO web site. Tariffs are percentage averages during the year.

Another important indicator of economic underdevelopment is the occupational structure. It is widely believed that the countries in which most of the national output or national income is derived from the primary sector (i.e., agriculture, forestry, animal husbandry, mining etc.) are at lower levels of development. In other words, the greater reliance on agriculture, the lower is the country in the stages of development. Most people in LDCs live in farms and produce food products. In India, for example, 70% of the total population depends on agriculture directly or indirectly.

In advanced countries, most people work in manufacturing or the services sector and are engaged in vocational trades or are skilled professionals. In advanced economies the contribution of agriculture to aggregate output is often between 8 to 10 percent. As Misra and Puri (2018) have put it, "Most of the poor countries are essentially agricultural and even if some industries have been established in these countries, their impact is yet to be felt on the socio-economic life of the people." In addition, there is greater income inequality in developing countries. Some suffer from severe hardship (e.g., Bangladesh or Ethiopia).

On a more positive note, other countries that were in bottom category two or three decades ago have progressed and have moved into the rank of middle-income countries, (e.g., Egypt, Philippines, and Mexico). The most successful countries, relying mainly on exports, were the newly industrializing countries (e.g., Hong Kong, South Korea and Taiwan) of the post-war period.

3. Rostow's Stages of Development

This section is based on Lodewijks (1991). Rostow's controversial 'stages of economic growth' model suggests five stages in the development of a country. The first stage in the model is a traditional society. This is where the countries' population use primitive technology, engage in primary production and their trade is heavily based on bartering. The second stage is the presence of conditions for take-off, which means the country has improved technology and made progress in trade and investment. The Take-off stage is the most important of all the stages because the economic growth is rapid accompanied by enhancement of political and economic institutions. The drive to maturity stage is known as a period of self-sustaining growth, with significant investment and diversification in production, while the fifth and final stage of the Rostow model is characterized by high-mass consumption.

With reference to Tables 1 and 2, EU, Japan, US and Australia, with low tariff rates, fall into Rostow's stage five of development. The other countries, India, China, Brazil, Argentina and Korea could be classified in stage 4. The rest of the developing countries could be categorized in stage two or three.

Sachs and Warner (1995) is a widely used study in the area of the relationship between trade liberalization and economic growth. The authors discuss the process of global integration and examine its effects on economic growth in the reforming countries. Using cross-country proxies of trade openness as the measures of each country's orientation to the world economy, they investigate the timing of trade liberalization, and the implications of trade liberalization for future growth and for the beginning or preventing of economic crises. Trade liberalization establishes direct linkages between the economy and the rest of the world and also, because of international competition, forces the government to introduce other reform programs.

Long-held views about the development process, suggest that poorer countries tend to grow faster than richer countries and therefore the income gap should close over time. Jeffrey D. Sachs and Andrew Warner (1995) argue that the main reason for expecting economic convergence is that the poorer countries are in the position of importing capital and modern technologies from the advanced countries and move faster. However, the authors maintain that, in recent decades, there has been no overall evidence for the poorer countries to converge with the richer countries. They argue that this problem is related to the trade regime, that is: "open economies tend to converge, but closed economies do not" (Sachs and Warner, 1995). The absence of convergence in recent decades is because most of the poorer countries have been closed to the global economy. Recently, with the introduction of trade liberalization programs this trend is changing such that tendency toward convergence will be much stronger.

During 1970-89, Sachs and Warren (1995) found a strong positive relationship between openness and growth, both within the group of developing and developed countries. "Within the group of developing countries, the open economies grew at 4.49 percent per year, and the closed economies grew at 0.69 percent per year. Within the group of developed economies, the open economies grew at 2.29 percent per year, and the closed economies grew at 0.74 percent per year." The authors also classified the data such that to distinguish growth within the open and closed groups. "Within the closed group, average growth is about the same for the poorer developing countries (0.69 percent) as the richer developed countries (0.74 percent)." However, within the group of open economies, the developing countries grew faster (4.49 percent) than the developed countries (2.29 percent)." These observations suggest that in the group of open economies as whole both developing and developed, the likelihood of economic convergence is high.

The relationship between openness in international trade and economic growth is controversial.

Zahonogo (2017) argues that Trade liberalization has become popular over the past three decades, particularly among developing and transition economies, mainly because of the "perceived limitation of import substitution-based development strategies" and the role of international financial institutions, such as the International Monetary Fund and the World Bank, which have mostly made their financial support based on trade liberalization. The reason for this strong commitment to a program of trade reform is the belief that liberalization of trade is necessary for moving from relatively closed to relatively open economies. Economists generally believe that open economies grow faster than closed economies. If openness is closely related to economic growth, then liberalization is necessary for growth. Despite their early claim, recent evidence suggests that trade reforms has not been as successful as it was claimed.

Instead, liberalization dates that capture episodes of discrete shifts in trade policy can be useful for estimating within-country growth responses. Waceziarg and Horn Welch (2003) checked and updated the Sachs-Warner dates of liberalization, “based on quantitative data and a thorough review of country-specific case studies of reform.” They found that over the 1950–98 period, countries that liberalized their trade regimes experienced average annual growth rates that were about 1.5 percentage points higher than before liberalization. Post-liberalization investment rates rose 1.5–2.0 percentage points, supporting past earlier results that liberalization affects growth in part through its impact on capital accumulation. “Liberalization raised the average trade to GDP ratio by roughly 5 percentage points, after controlling for year effects, suggesting that trade policy liberalization did indeed raise the actual level of openness of liberalizers. Trade reforms thus have significant effects on economic growth within countries.” (Waceziarg and Horn Welch, 2003). The study found that there are significant differences in the individual responses of countries to trade liberalization. A sample of 13 countries allowed access to the sources of these differences. Countries that experienced positive effects from liberalization performed deeper trade reforms. “Countries that showed negative or no effects on growth mainly suffered from political instability, adopted contractionary macroeconomic policies in the aftermath of reforms, or undertaken efforts to counteract trade reform by shielding domestic sectors from necessary adjustments” (Waceziarg and Horn Welch, 2003).

Theoretical discussion regarding the relationship between trade openness and economic growth are controversial. Although many studies suggest a growth-enhancing effect of trade, recent research argues that trade openness is not always positively related to economic growth. Openness in international trade can generate economic growth by facilitating the transfer of knowledge and technology. Free trade allows integration with the sources of innovation and benefits from foreign direct investment. By increasing the size of the market, trade openness permits economies to receive “the potential benefits of increasing returns to scale and specialization in production of domestically produced goods. Grossman and Helpman (1991) show that trade openness allows the transfer of new technologies, enhancing technological progress and productivity improvement. This argument assumes that trade generates economic incentives that increase productivity through time: in the short-run, trade prevents resource use misallocation; in the long run, it facilitates the transfer of technological progress. Trade openness can also encourage governments to introduce reform programs under the pressure of international competition, increasing economic growth.

Some studies argue that the contribution of trade to economic growth varies depending on whether the force of comparative advantage moves the economy's resources toward activities that generate long-run growth or divert from such activities. Furthermore, some suggest that, due to technological or financial constraints, less-developed countries may not have the social capability necessary to use technologies used in more advanced economies. Accordingly, the effect of trade liberalization on economic growth varies depending on the level of economic development. Some theoretical studies suggest that trade openness may reduce growth. These studies argue that, trade openness might actually reduce long-run growth if an economy specializes in production of goods with “dynamic comparative disadvantage with respect to or where technological innovations or learning by doing are largely exhausted.” For such economies, selective trade barriers may encourage faster technological progress.

The empirical analyses are also mixed. Some studies have found a positive relationship between trade, while others have shown no association, or a negative relationship. Zahonogo (2017) maintains that the empirical evidence on the relationship between trade openness and growth is also inconclusive partly because different studies use different variables for representing trade liberalization. The results for increase in growth through free trade are mixed because of problems with “misspecification and the diversity among the liberalization indices used.”

Using cross-country data, Kim and Lin (2009) showed that greater openness in international trade has a positive effect on economic growth for developed economies. Evidence on low-income economies indicates that trade liberalization has negative effects on economic growth. The beneficial effects of trade openness rise as economies develop, supporting the arguments that knowledge accumulation and technology implementation capacity of a country is positively related to its level of development.

4. Recent Development in US – China Trade War

How does the recent trade war affect the abilities of countries like China to progress to high income status? What impact does it have on world trade? (East Asia Forum, 2020).

The first clear observation is that when US President Donald Trump started the trade war with China by imposing special tariffs on China's imports (and on other countries' imports of steel and aluminium imports), and China inevitably retaliated, this was a direct attack on the established international order of multilateral

tariff reductions championed by GATT and subsequently the WTO. The protectionist behaviour of the largest economy in the world has had systemic global effects including increased volatility in global financial markets (East Asia Forum, 2020).

Chinese authorities have been forced to spend an additional US\$200 billion for purchasing agricultural produce, energy, manufactures and services from US producers over two years, relative to the 2017 benchmark. US exports to China were only US\$127 billion in that year. It is not likely that China's trade targets can be met by switching to other suppliers, for agricultural or energy products, such as Australia, Brazil, the Middle East or New Zealand (East Asia Forum, 2020).

The WTO publication, *World Trade Development 2017 – 2018*, Chapter III, notes that “World trade faced a renewed fall in 2018 as a result of trade tensions and economic policy uncertainty. As presented in Table 3, year-on-year growth in the volume of world merchandise trade (average of exports and imports) fell from 3.9 per cent in the first half of 2018 to 2.7 per cent in the second half of the year.” (WTO, 2018). Slower trade growth coincided with weaker output growth in major economies. For example, G20 countries GDP grew at an average year-on-year rate of 3.5 per cent in the second half of 2018, down from 3.9 per cent in the first half. The loss of momentum in trade and growth of GDP is partly due increased financial volatility and the higher tariffs on traded goods in major economies. The Trade war is believed to have contributed significantly to the slowdown. Overall world's merchandise growth of 3.0 per cent in the whole 2018 was significantly lower than the 4.6 per cent growth experienced in 2017. Merchandize trade only grew slightly more than output in 2018 after recording 1.6 times higher growth in 2017.

Table 3. Growth of Merchandize Trade 2015 - 2018

	2015	2016	2017	2018
Word Trade	2.3	1.6	4.6	3.0
Exports:				
Developed Econ.	2.4	1.0	3.6	2.1
Developing + CIS	1.7	2.3	5.6	3.5
North America	1.1	0.3	4.2	4.3
South + Central America	0.4	0.7	3.0	0.6
Europe	3.5	3.1	2.9	1.1
Asia	3.9	3.6	8.3	5.0
Other regions	4.3	-1.9	2.5	0.5
Imports:	4.2	2.0	3.3	2.5
Developed Econ.	0.6	1.3	6.8	4.1
Developing + CIS	5.4	0.1	4.0	5.0
North America	2.8	1.6	2.3	2.8
South + Central America	-0.8	-2.1	0.8	0.6
Europe	2.4	2.0	2.7	2.0
Asia	4.3	4.1	4.5	4.3
Other regions	1.2	2.2	1.9	2.2

Source: *World Trade Development 2017 – 2018*, Chapter III. CIS stands for Commonwealth Independent States.

5. The New Post-Trump Trade World

Multilateral trade rules are informed by the principle of *most favoured nation* treatment for all who signed onto the GATT and WTO. This means that countries get equal treatment under the rules. This provides security for countries that depend heavily on trade to ensure their economic development. These rules have been in place for seven decades and underpin confidence in international economic interdependence and substantially alleviate the risks of trade dependence. The Trump trade war has been an assault on that established rules-based order. The average US tariff on Chinese goods has risen from 3.1 to 19.3 per cent since the trade war began.

Bilateral bargaining replaces multilateral tariff reductions and negotiations over other trade and investment matters. Compromises have been made over Chinese protections for intellectual property. New Chinese investment laws require 'forced' technology transfer, facilitation of market access for certain agricultural goods and financial services, and a commitment to principles of currency management. Without embedding the agreement in the WTO, these measures are subject to the relative bargaining strengths of the United States and China. The multilateral system has now been badly damaged. The implications are that the 'middle-income trap' will now snare more developing countries as they struggle to achieve high income status.

References

- East Asia Forum, 2020. Issue on 20 January 2020 [online] Available at: www.eastasiaforum.org [Accessed on 20 January 2020].
- Freeman, C., 1989. New technology and catching up. *The European Journal of Development Research*, 1(1), pp.85-99, DOI: 10.1080/09578818908426503
- Grossman, G.M. and Helpman, E., 1991. *Innovation and Growth in the Global Economy*. Cambridge, MA, USA: MIT Press
- Kim, D. H., and Lin S. C., 2009. Trade and growth at different stages of economic development. *Journal of Development Studies*, 45 (8), pp. 1211-1224.
- Lodewijks, J., 1991. Rostow, Developing Economies and National Security Policy, in Craufurd D. and Goodwin (ed.) *Economics and National Security*, pp.285-310, Durham, USA: Duke University Press.
- Puri, V. K. and Misra, S. K., 2018. *Economics Development and Planning: Theory and Practice*. Mumbai, India: Himalaya Publishing.
- Sachs, J. and Warner, A., 1995. Economic Reform and the Process of Global Integration. *Brooking Papers on Economic Activity*, 1, pp. 1 – 118.
- Waceziarg, R. and Horn Welch, K., 2003. Trade Liberalization and Growth: New Evidence. *NBER Working Paper No. 10152*, December.
- WTO, 2017. Latest trends in world trade 2017-2018. [online] Available at: https://www.wto.org/english/res_e/statis_e/wts2018_e/wts2018chapter03_e.pdf [Accessed on 11 January 2020].
- Zahonogo, P., 2017. Trade and economic growth in developing countries: Evidence from sub-Saharan Africa. *Journal of African Trade*, 3(1-2), pp.41-56.

