

Global Tariff War

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Global Tariff War: Economic, Political and Social Implications

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INVESTOR IN PEOPLE

The book is for the persons who have contributed a lot
in building my academic career:

Sadhucharan Das

Basanta Das

Khagendranath Das

Barendranath Das

Kamalakanta Das

Sankar Mahapatra

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Foreword

“No conflicts like wars and no cooperation like peace” – says [Robert J. Aumann](#) in his Nobel Lecture in Economics in 2005.

International trade creates enormous production gains, yet sharing the gains from trade has been a knotty problem, which can create and propel inter-country conflicts in the form of trade wars. Moreover, free trade creates winners and losers in an economy, which can further exacerbate intracountry conflicts.

Trade wars are a form of conflicts arising from market rivalries. In this foreword, we will strain the conflict theories to better understand the causes and consequences of trade wars from the vantage point of modern economics. There is one crucial invariance in human history; conflicts have been raging since the dawn of human history. We seek to understand conflicts in general – not specific forms of conflicts. The economic models of conflicts suggest that for any society, or economy, an optimal mix of cooperation and non-cooperation exists as a *point of attraction* and a typical society gravitates toward this point of attraction due to the endogenous forces within its system. This point of attraction in economics is an equilibrium. The important milestones of economic theories of conflict can be reduced to a few nuanced questions:

Can economic theories prove the existence of such equilibrium?

Can economic theories characterize such equilibrium?

What is the significance of this equilibrium?

We posit at the outset that economics can understand conflicts, economics can offer meaningful insights the mitigation and a resolution of costly conflicts including trade wars.

Any society faces a fundamental trade-off with regards to conflicts: Cooperation (production) and non-cooperation (conflict). The rational foundation of conflicts has been the primary mechanism to explain conflicts in economics, which rests upon two planks: self-interest and incentives.

A fully articulated framework of conflict came as a contest, which was initially advanced by [Haavelmo \(1954\)](#). This model analyses conflict as a contest in a multisectoral and general equilibrium setting. In this setting, first and foremost, agents engage in production. The distribution is subject to future grabbing and appropriative activities.

- While agents face the usual trade-off between these two sets of activities – production vis-à-vis appropriation or looting, this trade-off adds the basic elements of a general equilibrium model to any basic theory of conflicts.
- Haavelmo introduced two additional and interesting assumptions: first and foremost, agents don't optimize. Second, the overall level of appropriate activities has an *unintended negative* effect on the aggregate economic outcome.

From the trade-off and the second assumption, Haavelmo explained the diminishing return from appropriative activities, which led to the determination of a unique level of appropriative activities for each decision-maker. He further highlighted the dividend from a centralized coordination of appropriative, or grabbing, activities to control the negative and unintended effects of *looting*. In the absence of an easily available and accessible device of centralized coordinating, every society will need to create safety nets for managing and resolving conflicts.

In their important work [Tullock \(1974\)](#) and [Schelling \(1963\)](#) amended the above model by introducing two critical elements in the original contest model:

- First, they postulated that a contest, like any other economic activities, calls forth an *optimum* at the individual level.
- Secondly, they argue that any meaningful contests must be modeled as an overall equilibrium at the macrolevel.

This previous strand of research has culminated into the work of [Hirshleifer \(1991, 1995\)](#), [Azam and Mesnard \(2003\)](#), [Grossman \(1995\)](#), and Collier et al. (2000). These new models apply the tool of Nash equilibrium that requires a *mutual consistency* between optimally-chosen conflictual activities of agents in the context of contests. A great deal of attention is paid to the interconnection between an economy and the contest (fighting). A simplistic interconnection was made in terms of a contest success function. The “invisible hand principle” of Adam Smith shows how self-interests, or the virtue of prudence, can work for the entire society by creating a natural and spontaneous order.

The above holds if agents settle their businesses peacefully. Yet the hell breaks loose if agents resort to violence to pursue self-interests and we then need a new theory. The apparent beauty of Hirshleifer's model is that the hell does not break loose if we introduce *hyper rationality* in the economic model of conflict. As we shall see later, conflicts will be reduced to the rational conflict – some sort of a contest – either with arms and ammunitions for wars or with tariffs and quotas for trade wars.

Hirshleifer introduced four building blocks of conflicts to explain the (Nash) equilibrium conflict that is founded on the clinical and hyper rationality of agents such as: opportunities of conflicts; preferences over conflicts and production; perceptions of conflict and technology of conflicts which can provide further insights into the understanding of trade-related conflicts.

In modern models of conflicts, powerful agents choose conflicts as a rational tool to advance their self-interest. The (Nash) equilibrium in this context constitutes the optimal mix of cooperation (production) and non-cooperation (conflict) such that no agent intends to depart from the equilibrium unilaterally. Yet, the consequence of conflict is a loss of production capacity and output of final goods and services. Thus, trade wars like any form of conflicts can derail the global production system with significant costs on all countries. Yet the basic understanding is that such conflicts have limited (adverse) effects as the hell does not really break loose. This is very similar in spirit to the Hirshleifer brand of conflict models, or what is popularly called the “rational conflict theory,” which treats conflicts like a soccer, or cricket, match with suitable weapons to shoot trades. Agents set aside resources for fighting and the fighting takes the form of a contest that is akin to a zero-sum game. The contest has a prize. Only a handful of nations can gain from such conflict, as the winner of trade wars will take all the prize. Any society can suffer from regular bouts of organized conflicts. The society pays a price for the contest that is given by the Nash equilibrium, which in turn determines the probability of success in the contest of nations against nations. The price of such conflicts also includes a fixed disappearance of production from conflicts as well. Nations have two mutually-opposite inclinations: (1) to be cooperative and produce and maximize global GDP; and (2) to be non-cooperative and sequester larger shares via trade wars. In the Nash equilibrium, these opposing inclinations balance each other so that no rational agents will deviate from the equilibrium configuration, which propels the contest success of a participant.

At the theoretical level, trade, or tariff, wars are examined in juxtaposition with a free open economy: with free trade in the absence of trade wars, the global income gets maximized and all countries can have potential gains. Yet disputes can flare up over the sharing of the production gains as the magnitudes of gain may differ. Also, there are winners and losers from free trade within an individual economy. Trade restrictions, or tariff wars, are a means to shape the gains from trading. As a result, conflicts theories can have significant imports for exploring the causes and consequences of trade wars. From Herbart [Simon \(1992\)](#) allow me to borrow the concept of “intelligent altruism” to highlight that the mantra of the new world will be the survival of the nicest and not the fittest. The challenges of trade theories will pivot on the possibility of altering the focus of modern trade theories from the survival of the fittest model to the model of intelligent altruism.

Keeping in all the issues in mind the present book edited by Dr Ramesh Chandra Das of Vidyasagar University, India, has attempted to compile a list of 25 studies from different countries and regions of the world in a single volume in economic, political, and social perspectives. The exerts of the studies establish the ill effects of such a tariff war in all the concerned fronts and thus it recommended for the resolutions of the issues through diplomatic alliances. I hope the title will penetrate the readers’ mind and will get huge readerships not only from

the concerned countries and regions it focused on but also from the other parts of the world.

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With long-term efforts on the stages from proposal writing to final submission of the proposed book titled, *Global Tariff War: Economic, Political and Social Implications*, it is now an unconceivable pleasure to disclose from my part as editor that the proposed book on the said title has been in due course unveiled. But, the ultimate achievement to such a huge volume could not be made if the contributions of the bunch of academicians all around the world were not combined. Hence, it would be culpable if I do not recognize the contributions of the concerned academicians and the other members of the society who are directly or indirectly associated to the project.

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Ramesh Chandra Das
Editor

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Introduction

The world economic and political situations in the recent times have been under the phase of facing turmoil and wreckage after the US President's announcement on March 1, 2018 which constitutes imposition of import tariff of 25% on steel products and 10% on aluminum products. It is the first strong move by the US Government in the forms of reducing grants, financial supports to some countries. The moves are the aftermath of announcing the patriotic term, "America First." Having played the role of campaigner in favor of free trade since the World War II, the today's United States under the leadership of Donald Trump has intended suddenly toward protectionism and patriotism. The developing countries' labor markets have exploited a major part of the US industries and corporations directly or by outsourcing activities through supplying cheap labor force, and some countries' breach of contracts for free trade by means of state sponsored subsidies and artificial devaluations of the home currencies. For instance, the Chinese government and its central bank are accused by the United States on the ground that they manipulated Yuan artificially against US Dollar to make their export products relatively cheaper in the US market and as a result of that there had been trade deficit of USD 342 billion faced by USA vis-à-vis China in the year 2017. On the other hand, the countries like Brazil, Mexico, and India are blamed by the United States having protected their industrialists/exporters to United States in terms of subsidy and low costs of credits for export purposes. The political sentiments of the US citizens were in favor of Trump Government as they wanted their own economy to be protected on priority basis. Donald Trump had assured the voters in the time of his election campaign in this regard. Thus, the concerned countries under the threats of the US President are China, Brazil, Mexico, India, etc. having sizeable amounts of exports of iron and steel and aluminum to the United States.

Dating back to the 1929, the year falling within the phase of the Great Depression, the United States under the presidency of Herbert Hoover had imposed the second highest tariff rates of 59% since 1830 with 67%. During campaigning for president during 1928, one of Herbert Hoover's promises to help struggling farmers had been to increase tariffs of agricultural products. Hoover won, and Republicans maintained comfortable majorities in the House and the Senate during 1928. Hoover then asked Congress for an increase of tariff rates for agricultural goods and a decrease of rates for industrial goods. Two senators, Willis C. Hawley and Reed Smoot, were in charge of working out tariff rates. The Tariff Act of 1930 commonly known as the Smoot–Hawley Tariff or Hawley–Smoot

Tariff was an act passed in the Senate for implementing protectionist trade policies and was signed into law on June 17, 1930. The act raised US tariffs on over 20,000 imported goods. The protestors, the anti-protectionists, including economists Paul Douglas and Irving Fisher termed this move as the cause of exacerbating the ramifications of the Great Depression. What happened that the tariff rate increased to 59.1% in 1932 and in the next election, Hoover and majority of the senators were defeated by Roosevelt who campaigned in the election against this protectionist move of Herbert Hoover. The countries like Canada, the most loyal trading partner of the United States, retaliated by around 40% of tariffs on US exported products. Also, the US trading partners at that time searched for new trading allies and so the dimensions of international trade got changed tremendously.

The theoretical basis of the effects of imposition of tariff needs to be highlighted at this juncture. In a free open economy, both countries gain by trading but the magnitudes of gain may differ. Imposition of tariff on any imported product (which is the exported product of the trading partner) is necessary when the import competing industries face losses of free trade and the government of the country takes care of them by imposing tariff on the related product/s. As tariff is imposed, the cost of importable in the domestic market increases which means the domestic consumers will import less and buy indigenous products more. As a result of that the home country may export less for fewer imports. The export to import ratio increases means the terms of trade (or international price ratio) works in favor of the tariff imposing country which further puts additional burden on the trading partner. The trading partner will not sleep upon a soft mattress and will try to impose counter tariffs on the product of the tariff imposing country. This process is called retaliation or tariff war. As a result of these counter tariff policies (known as tit-for-tat strategy), the total volume of trade or export plus import falls. That means, tariff war worsens both the trading partners.

Let us broaden the number of trading partners from the system of bilateral to multilateral trading system. When the first two countries face tariff war, the third, fourth, etc. partners will also be engaged in tariff war as they also face losses from the tariff wars of the two countries. That means, a bilateral tariff war turns down to multilateral trade war. If all the countries of the world similarly follow these policy strategies, the global trade volume will turn down to zero and all the countries will be shifted to their no trade or autarky positions. This no trade situation may provoke the countries to distrust the others and the possibility of the outbreak of another world war may not be wiped out. The World War means ultimate destruction, the history infers this.

Now come to the analysis of US tariff on steel and aluminum products. If all countries follow the example of the United States, this will undoubtedly result in a serious impact on the international trade order. And it's not just the US trade relationship with China that's in peril; the main US trade partners, including Canada, the European Union, Mexico, Japan, China, and Brazil, have all said they are weighing countermeasures to the new steep tariffs. Besides the United States, China's largest export zone of steel is the East Asia where Thailand, Vietnam, Indonesia like countries import huge iron and steel products from China.

Again, although India exports about two per cent of its steel product to United States, its major export areas are the UAE, Saudi Arabia, Hong Kong, Singapore, etc. Hence, it is really hard to conclude right now the possible impacts of these two tariffs upon China and India. But if there are multilateral effects, for example, UAE, Vietnam, Hong Kong like countries also engaged them in counter tariffs upon other the US, Indian, and Chinese products, then there will be real trade war whose ultimate destination will be destruction.

Hence, it is now to explore the economic, political, and demographic implications of tariff war with reference to the victims in particular and the global economy in general. The present book, under the background, intends to emphasize upon these particular aspects of tariff war. Motivated by the optimistic moves by the publisher, Emerald Publishing Limited, upon my submitted proposal, I proceeded further for its fruition. After a series of scrutiny and suggestions by the review teams of the publisher, the title is finalized as *Global Tariff War: Economic, Political and Social Implications*.

Keeping in mind its broad coverage, the book has been structured in two separate sections to present 25 finalized chapters. Section I encapsulates the economic implications of the tariff war. It covers the theoretical as well as empirical analysis on the issues at country and regional levels. Not only confining the analysis at economic indicators, the book also envelops the studies with respect to political, social and environmental implications of tariff war. Section II captures these issues. There are 17 chapters in Section I and 8 chapters in Section II. The kernels of the chapters are outlined below.

Section I: Economic Implications of Trade War

Chapter 1 discusses on history of tariff wars among different countries from the nineteenth century to date. Specifically, it covers the First and Second Opium war Empire between 1839 and 1842; The Smoot-Hawley Tariff Act, 1930; Chicken wars in the early 1960s; The US–Japan automobile trade war in the 1980s; 1985 Pasta War between America and Europe; and The Banana wars and today's US–China tariff war. It arrives at the conclusion that tariff war in different forms has negative impacts in general, but has some short-term good effects.

Chapter 2 deals with the impact of tariff war upon unemployment and welfare through a theoretical model. For the purpose, the study has adopted a general equilibrium model to illustrate the probable effect of the above-stated trade war in a structure consisting both H–O nugget and export sector dualism. The effect of imposition of tariff on an MNC that has its own origin nation and production activities in other nation as well where it faces the war of tariff is considered. But it gets relief in the form of tax reduction in its origin nation. Under such a scenario, the study has shown the effect of tariff in the presence of full employment in the economy as well as in the presence of unemployment. It is seen that the MNC will continue its production procedure in both nations as well as enjoy profit, under some conditions. Further, in the presence of unemployment it is seen that if rate of tax on the MNC rises, unemployment may fall and welfare can increase under certain conditions.

Chapter 3 attempts to develop a microtheoretic model to explain the genesis of trade war in light of the behavioral interdependence of two countries connected through international trade and thereof, it analyses its welfare implication with respect to the countries at feud. It has highlighted on fundamental take ways where they are twofold. First, how evolution of tariff war can be articulated in light two-stage game governments are coming to decide on tariff policy a priori, followed by second stage featuring firms being decisive on the production level and then the games repeats where governments again come up to introspects if the a priori tariff rates are compatible with welfare optimization to be followed up by firms. Second, the nature of the ultimate fallout of the tariff-retaliation will depend crucially on how welfare function of each country is paced with the country's tariff policy.

Chapter 4 focuses on the tradeoff between free trade and restricted trade in international perspectives. It presents empirical evidence from the European Union and the Sub-Saharan Africa region using annual times series for the period, 1980–2019. Findings indicate that for the European Union, the tradeoff is 4.31% while for the Sub-Saharan Africa region, it is 2.66%. The tradeoff is higher in the European Union than the Sub-Saharan Africa region because it is among the world's largest economies and trading zone. This suggests that the negative effect of globalization due to trade restrictions is more in developed regions than developing regions of the world. This is an indication that whether in developed or developing countries, a tradeoff exists between globalization and restricted trade, and the imposition of tariffs and counter tariffs is capable of shutting down globalization.

Chapter 5, under the background of the US–China trade confrontation, develops a macrotheoretic model to show how a trade war can take potentially take in the wake of economic downturn led by some demand contracting force in one of the countries having trade ties and in turn can cause the recession to leap into global turmoil. This may prompt the countries to be more protective and averse to international exchange, thereby paving way to more intense trade frictions among the nations and stoking international macroeconomic propagation. Thus, the present introspection hints at tariff war among the nations engaged restricted trade with each other being a plausible consequence of macroeconomic fault having cross-country repercussion implication and that in turn becomes more pronounced in presence tariff war leading to more fierce trade frictions among the countries.

Chapter 6 aims to investigate the impact of tariff war measured by trade as a percentage of GDP on the per capita GDP of the nations. It finds that all the variables are cointegrated. The effect depends on how we measure world tariff, for example, the effect of tariff on trade is positive and significant when we measure the world tariff as simple mean of all products but the effect of tariff on trade is negative and statistically significant when we take tariff as weighted mean of all products. Similarly, the effect of tariff on per capita income is positive if tariff is measured with simple average of all products but this effect is negative and significant when it is measured with weighted mean of all products. In this case, imposition of world tariff (weighted mean of all products) declines world per capita income especially in short run.

Chapter 7 empirically investigates the effects of tariff imposition on manufacturing trade comparatively in the north and south economies across the globe during the last three decades. Along with the volume and balance of trade, the study accounts for both export and import separately in order to observe their dynamisms under the tariff regime and makes comparisons between developing and developed groups of countries. Using World Development Indicators (2019) and World Integrated Trade Solutions (2019) databases on 77 developing and 48 developed nations for 1991–2018, the robust difference panel generalized method of moments (GMM) estimates imply that impositions of domestic tariffs significantly reduce manufacturing trade in both groups of countries; however, developing countries experience this effect in a greater extent.

Chapter 8 is based upon the US–China tariff war which analyzes the trade tensions between them and the context under which it came to the fore and with what outcomes. The analysis recommends interventions of the global leaders to mitigate the issues for the betterment of the world economy.

Chapter 9 highlights the US–China conflicts surrounding the imposition of tariffs and attempts to investigate the impacts of the Economic Policy Uncertainty (EPU) of United States and China on three most important global markets, namely, crude oil, credit market, and commodity market. To attain the objectives of the chapter, the study has utilized Vector Autoregressive model and has analyzed the results. The study reveals that China's EPU has lesser impact on the global market as compared to the US EPU. On the basis of the results obtained, few policy implications have been proposed.

Chapter 10 seeks to investigate into the historical evidences of trade wars between the United States and China, major reasons responsible for this conflict and tries to figure out the impact of this conflict on fundamental macrovariables using secondary time series data primarily on selected Asian economies including India. The empirical results clearly show that in case of China and the United States increase in weighted tariff rates will lead to a significant decrease in the trade GDP ratio whereas in case of both these countries PPPGNI is positively and significantly associated in determining TGR. In case of India, a decrease in WTR is expected to lead to a rise in TGR and it is significant. In case of Vietnam, PPPGNI is significant, but not WTR. In case of Singapore, neither of the two independent variables is significant.

Chapter 11 deals with the growth performance of export, import, and economic growth in India over the period 1970–2011 to 2016–2017 as well as tariff for the period 1990–2017 by employing the methodology of one-time endogenous structural break suggested by Zivot and Andrews (1992). Also, it has put an attempt to examine the direction of causality between the above-mentioned trade-related variables and economic growth using Granger Causality Test. Results of estimation reveal that all the variables converge toward a stationarity process having constant variability overtime. There exists structural break in the year 1996, 2006, 2008, and 2010, respectively, for economic growth, tariff, imports, and exports. Bi-directional causality is found running from economic growth to tariff and from tariff to economic growth. But there is unidirectional causality from imports to tariff, imports to exports and from exports to tariff.

Chapter 12 explores the impact of WTO which came into existence from January 1, 1995, on the export share of developing countries in the world exports of all goods together in US\$ that is, in global merchandise trade. It endogenously determines the structural break in changing export share of developing countries and how are they related to the major changes in the multilateral trading systems of international trade, in particular, the introduction of the WTO by following a multiple breakpoint analysis due to Bai–Perron. This study also compares the changing share of merchandise exports and trade in commercial services for developing countries and the LDCs in the post-WTO regime. We follow a univariate time series exploratory analysis to understand the trend in world export shares of all goods and commercial services for different regions of the developing world and demonstrate the potential of these regions in the expansion of trade. The study enables to understand the role tariff cut in the developed countries on the imports from developing countries. Besides, it observes increasing inequality in terms of export share among different regions of the developing world.

Chapter 13 aims to evaluate the role of trade war between the United States and China on oil price. In the evaluation process, both Engle–Granger cointegration and Toda–Yamamoto causality analysis are considered. The results of Engle–Granger cointegration analysis indicates that there is a relationship between trade war and oil prices. Nevertheless, according to the results of Toda–Yamamoto causality analysis, it is identified that trade war does not cause oil prices. While looking at these results, it is determined that trade war between the United States and China has an influence on the oil price changes. However, it is also understood that it is not the main factor of this volatility.

Chapter 14 estimates total factor productivity growth and its components for the manufacturing industries of West Bengal and all India level, for the period 1980–1981 to 2016–2017, using Stochastic Frontier Approach. Further it tries to make a comparative analysis between the TFPG of manufacturing sector of West Bengal and all India level for the time period mentioned above. Results suggest that, for West Bengal, total factor productivity growth has decreased for the post-WTO regime but it has increased in post-WTO regime for all India level.

Chapter 15 examines the export prospect of India in the era of neo-protectionism which is characterized by increased used of trade barriers mainly by the large economies and a very sluggish growth in world export as a whole. The study shows that both tariff and non-tariff barriers as well as world income affect India's exports significantly that shows that the present era is not very encouraging for India. As a strategic response, it may try to re-orient its exports from more restrictive developed countries like EU to countries like Japan, which are much less restrictive, as complete re-orientation from developed to developing world is not possible.

Chapter 16 aims to investigate the changing growth pattern of India's tea export and the impacts of trade openness on India's tea export. Applying *Poirer's Spline function approach* and trade openness index the study concludes that initially with trade openness Indian tea industry was benefitting but the growth rate of tea export gets reduced over time. It is surprising that in the post-EXIM-2002-07 phase the rate of growth of India's tea exports has declined sharply. The study ends with suitable policy prescriptions.

Chapter 17 tries to assess theoretically and empirically the impact of trade war on developing countries with special reference to India. It reveals that production and flows of goods are directly influenced by the tariff; uses input–output analysis to estimate indirect effects on gross domestic product, exports and employment; and allows redirection of trade toward other producers. The ongoing trade war with similar trade conflicts in history reveal three major causes, with varying degrees of importance from both economic and political perspectives.

Section II: Political, Social and Environmental Aspects of Trade War

Chapter 18 adds different flavor to the title by considering that political economy of trade policies and tariffs can affect welfare distribution and resources allocation as well as sustainable development. This chapter thus aims to investigate political economy of the trade tariff and trade policies with particular focus on China's economy, United States, and China trade policies as well as their roles and impacts on global policy. It emphasizes the importance of sustainability in trade and trade policies' roles in efficient resource allocation, welfare increase, and sustainable development. Furthermore, trade policies, taxes, and tariffs are recommended to be balanced based on the mutual trust, and common goals among trading countries.

Chapter 19 examines the current trade war between the United States and China and its impact on the two countries' military industrial complex in relation to economic growth and development. The trade war has both positive and negative impacts on the country's economic growth and development. Both countries depend heavily on each other for trade and account for an incredibly significant portion of the global trade. The trade war also impacts on the military industrial complex with respect to the defense budgetary allocation and trade in arms. One of the rationales for the trade war by the Trump Administration is to boost up the domestic economy, which would benefit the military industrial complex. Likewise, the retaliatory tariffs by China are designed to protect the domestic economy and showcase its ability to withstand and challenge the United States. Applying a quantitative design with canonical correlation method to multiple regression it shows that trade wars in the form of increased imposed tariffs on each other by the United States and China has had no significant adverse effect on the Military Industrial Complexes of the two biggest economies of the world.

Chapter 20 tries to investigate the causes and potentiality of China–US bilateral trade war by using the content analysis method and observation method. The result of the study is manifested based on recent trade restrictions and economic sanctions to each other. The impact of the recent Sino-American trade war resulted in a negative impact on not only both countries' economies but also on the world economy.

Chapter 21 sheds light upon two different approaches to recent development in the world economy-*economic integration and Trumponomics*. Economic integration is an agreement among countries in a geographic region or unification

of economic policies between different states aiming to reduce and ultimately remove tariff and non-tariff barriers on trade. The fruit of globalization is the tremendous rise of economic integration as globalization loosens barriers among the nations through reduction in cross border duties and eases trade policies. On the other hand, Trumponomics is defined as the economic policies of US President Donald Trump that prefers high import tariff to bring “America First.” There is a debate among the researchers about the choice between free trade and protection or imposition of tariff. Choice between no-tariff and tariff represents a prisoner’s dilemma situation whereby each player’s best response is to employ tariffs, which is a Nash solution.

Chapter 22 attempts to examine the effect of trade wars between countries on social factors applying fuzzy DEMATEL approach. The findings indicate that working life is the most significant criterion. However, free time and leisure and family are at the bottom of the list. Additionally, it is also defined that working life is the most influencing criterion. These results demonstrate that trade wars have the highest impact on the working life of the people. In order to solve this problem, companies should make official statements to their employees about the situation caused by the trade wars.

Chapter 23 talks about the evolution of globalization, prevailing benefits and also caters to the views of some famous economists like Stiglitz, Simon Kuznets. The crucial aspects include the review of globalization on the basis of certain parameters like Trade (as % of GDP), Trade in services (as % of GDP), per capita CO₂ emissions, and per capita GDP that have impacted the trends of both developed and developing nations. This study provides a critical taxonomy that will help scholars better understand the overwhelming literature on the subject and also outlines the key challenges that scholars and policymakers will face for a second wave of thinking on the subject. This also implies that, despite the worldwide awareness of climate change, the address of climate change in trade will become increasingly significant for reducing carbon footprints.

Chapter 24 speaks of sustainability performance of the global trade as well as of the traded products which are affected by the trade policies and trade tariffs. It aims to examine impacts of the trade policies and trade tariffs on the environmental footprint of the global trade. With this aim, recent trade policies and trade tariffs as well as roles of the trade policies, trade tariffs in reducing environmental footprint of the global trade are examined. It arrives at the conclusion that trade tariffs can affect environmental footprint of the global trade as well as of the traded products. They can have impact on the feasibility of the trading activities influencing their profit margins and costs.

Chapter 25 tries to capture the issues of inequality, specially the gender inequality, which has worsened a lot in the last two decades. On the one side, trade openness enhanced the growth, but at the cost of increasing inequality. The state wise analysis of such inequality indices for India is varying a lot over the study period. It concludes that in the post-WTO era income inequality has increased a lot with a very few exceptions. In some states like Maharashtra, Gujarat, Karnataka, and Punjab where exports have led to increase the employment in the unorganized sectors. Further, it shows that exports have generated additional

employment and incomes in the economy, but these gains have not trickled down to the poor.

The entire book through its coverage of studies has addressed different aspects of the tariff war in particular and trade war in general for individual as well as regional economies. The economic variables such as income, employment, productivity, exports, etc., are covered in one hand and political instruments, social indicators, and environmental factors are on the other hand. The book has arrived at the conclusion that tariff war as well as trade war are not good for the economy as well as other sectors such as society and environment. Developed countries are impacted adversely compared to the developing zones due to this war. The studies in general have, thus, recommended for diplomatic interventions to these unfair moves by the trading nations, through tariff imposition by one and its retaliations by the others, as quick instrument toward solution. In addition, to have long run solutions to the tariff war as well as to reap the sustainable benefits of free trade, the studies have emphasized upon reducing cross-country inequalities over time.

The contents of the book, its methodologies, interpretations, and policy suggestions provided by the studies will inevitably help the readers in the respective fields, diplomats, global leaders to solve the crises arose due to unfair tariff war of the recent past.

Ramesh Chandra Das
Editor

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Section I

Economic Implications of Trade War

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Chapter 1

Trade War in the Twenty-First Century: A Historical Perspective

Asim K. Karmakar and Sebak K. Jana

Abstract

Trade war among the nations dates back mainly to the nineteenth century. Some of the trade wars may be cited as (i) The First and Second Opium War Empire between 1839 and 1842; (ii) The Smoot-Hawley Tariff Act, 1930 signed by US President Herbert Hoover; (iii) Chicken wars in the early 1960s; (iv) The US–Japan automobile trade war in the 1980s; (v) 1985 Pasta War between America under the Regan Administration of United States and Europe; (vi) The Banana wars. However, trade becomes more intense in the present century with the increase of the economic trade instruments. Under the Obama Administration, currency war and tariff war both became strong between the United States and China with intense effect over the globe. After the Obama regime, came Donald John Trump with a number of controversial (aggressive) trade protectionism plans saying thereby “China’s accession to the World Trade Organization has enabled the greatest jobs theft in history” and “Trillions of our dollars and millions of our jobs flowed overseas as a result.” Even during the COVID-19 period in the 2020s, threats and counter-threats have been on the ascend. It is in this backdrop the present chapter mainly traces the history of trade wars in the twenty-first century, touching upon the nineteenth and twentieth century trade battles.

Keywords: Currency manipulation; Tariff war; Smoot-Hawley Law; Reciprocal Trade Agreement Act 1934; Banana War; Beef War
Tire-Fight; Softwood lumber dispute

JEL classifications: F13; F32; F52; N10; N40; N72; O19; O24; O32; O34; P33

Introduction

Trade war with severe conflicts among the nations, that embodies a queer blend of economic, political, and social dimensions, dates back prior to the twenty-first century. For example: (i) the Opium Wars were fought between the Qing dynasty (the last Chinese dynasty that was overthrown in 1911) and the British Empire between 1839 and 1842 over ban on trafficking of the opium by the British East India Company to China. Actually, the Opium Wars saw China's government constrained by a series of treaties that demanded trade and territorial concessions to the western powers (Cook & Stevenson, 2018, p. 58). Britain along with France forced China to open all of China to foreign merchants and exempt foreign import duties; (ii) The Smoot-Hawley Tariff Act, 1930 signed by 31st US President Herbert Clark Hoover (1929–1933) to protect the falling stock market and domestic industry, and also to protect the US firm sector; (iii) Chicken tariff wars occurred in the early 1960s, when France and Germany imposed high tariffs on American chicken as demand for European chickens fell with people savoring cheaper American chickens. The United States retaliated with imposing higher tariffs on a bunch of commodities including French brandy and Volkswagen buses. It even threatened to cut NATO troops to Europe. However, France and Germany didn't buckle under pressure even though consumers from both sides of Atlantic Ocean were the real losers; (iv) The United States has also engaged in trade wars with Japan and the EU over a spectrum of domains such as textiles, vehicles, color televisions, currencies, and steel. In the 1980s alone, the United States initiated 24 "Section 301 investigations" against Japan, as a result of trade conflict, car sales in both countries declined dramatically – Japanese car producers and American consumers suffering substantially from the trade conflict, Japan witnessing a sharp decrease in revenue, and the US consumers facing a sharp jump in automobile prices. More importantly, more than 60,000 jobs in the automobile industry were lost, and the unemployment rate peaked at the height of the trade war under the Reagan presidency. In addition, the 1985 Plaza Accord signed between Japan and the United States further interfered with Japan's exchange rate policy – making Japan's yen appreciated by more than 80% against the US dollar in the three years that followed and affected the progress of its economic development in the next few decades, for which, may be, Japan witnessed a "lost decade" from 1992 to 2002; (v) 1985 Pasta War between America under the Reagan administration (1981–1989) of United States and Europe raised tariffs on Pasta from Europe; The Regan administration of United States raised tariffs on Pasta from Europe in 1985 as its complains of discrimination against its Citrus products fell in deaf ears. Europe retaliated in kind with higher tariffs on American lemon and walnuts. In August 1986, both sides signed an agreement ending the citrus dispute and, in October 1987, ended the pasta dispute; and (vi) the 1993 Banana wars: To restrict import of Bananas to its colonies in Africa and Caribbean, European Union (EU) imposed heavy tariffs on import of Latin American bananas in 1993.

But the trade war has become more intense in the present century with the increase of the economic trade instruments. Under the Obama Administration (2009–2017), currency war and tariff war both became strong between the United

States and the China with intense effect over the globe. The present chapter will essentially deal all of these with consequences.

To serve “American Economic Independence” Donald J. Trump, the United States’ 45th President on November 8, 2016, came with a number of controversial (aggressive) trade protectionism plans saying thereby “China’s accession to the World Trade Organization (WTO) has enabled the greatest jobs theft in history” and “Trillions of our dollars and millions of our jobs flowed overseas” as a result “of participating in globalization and trade liberalization.” Even during the post-COVID-19 period in the 2020s, threats and counter-threats have been on the ascend between the United States and China. The chapter will also deal with respect to worldwide impact of Trump’s tariff increase in terms of international trade patterns, GDP, terms-of-trade, etc.

Objectives of the Study

Trade war among the nations in the twenty-first century has assumed a significant aspect as opposed to the earlier trade wars where the bilateral, regional, and multi-lateral tug of trade wars were not as prominent as it is now. “The old order changed, yielding place to new.” But this newness has neither brought to any nation a well-directed sunlit path nor has it produced the desired result in the guise of neoliberal situations. Only “all day long the noise of (trade) battle rolls,” so that a healthy and smooth trade functioning among the trade-giant nations are invisible. It is in this backdrop the objective of this chapter is to highlight the history of trade war in the twenty-first century, touching upon and not with omitting some previous documents of the nineteenth and twentieth centuries trade battles as well enamored with some fact- and evidence-based stories. Finally, the last section concludes.

How Did Trade War Start After World Wars I and II? A Historical Atlas

After World War I

Thomas Woodrow Wilson (1856–1924), 28th President of the United States of America from 1913 to 1921 and other liberals pushed for an international order organized about a global collective security body in which sovereign states would act together. Open trade, national-trade determination, and a belief in progressive global change also undergirded the Wilsonian world view – a “one world” vision of nation–states that trade and other activities would interact in a multilateral system of laws creating an orderly international community. But in the end, this experiment in liberal order building failed and the world soon entered into an interwar period of closed economic systems and rival imperial blocs.

The Smoot-Hawley Tariff Act 1930 and Others

The Smoot-Hawley Tariff Act 1930 was a major US federal statute to establish protectionism in the twentieth century. It includes tariff schedules for over 20,000

products, proposing increasing in many cases. It led to beggar-thy-neighbor policies which led some economists claim that it was a major cause of the world wide depression in the 1930s. The Great Depression, protectionism, and the World War II together reduced trade considerably.

The Smoot-Hawley Tariff Act of 1930 increased the already high average US tariff rates by about 17% from 40.1% to 47.1%. However, the most duties were specific (as opposed to ad valorem) combined with the massive deflation of the period and served to magnify its effect, so that effective average tariffs increased by a total of 50% from 40.1% to 60%. Due to the increased effective protectionism and the contracting economy, import volumes fell dramatically in the United States. Half of the decline in the volume of imports can be attributed to the combined effects of Smoot-Hawley and deflation, while 7% was due to Smoot-Hawley alone (Irwin, 1998, p. 333).

The legislation provoked retaliation by trading partners of the United States. Spain implemented the Wais Tariff in reaction to US tariffs on cork, oranges, and grapes. Switzerland boycotted US exports to protest new tariffs on watches and shoes. Mexico, Cuba, Australia, and New Zealand also participated in the tariff wars. Simply put, following Tariff Act of 1930, the trading partners of United States retaliated by increasing their own import restrictions, and the volume of world trade decreased as the global economy fell into the Great Depression. By 1932, US trade with other nations had collapsed. Presidential challenger Franklin Roosevelt denounced the trade legislation as ruinous. Following Hoover's defeat in the presidential election of 1932, the Democrats dismantled the Smoot-Hawley legislation. But they used caution, relying on reciprocal trade agreements instead of across-the-board tariff concessions by the United States. In this way, the Smoot-Hawley was discredited, and United States pursued trade liberalization via reciprocal trade agreements after the disastrous effects of the Smoot-Hawley Tariff of 1930. Finding no other alternatives, the United States began a long process of reducing tariff barriers. The Reciprocal Trade Agreement Act of 1934 initiated a series of bilateral, item-by-item negotiations that achieved some success. These procedures were superseded by the emergence of General Agreement on Tariffs and Trade (GATT) at the end of the World War II.

As Table 1.1 makes it clear that, US tariff history has been marked by fluctuations. Trade liberalization occurred following Payne-Aldrich Tariff of 1909 as well as Underwood Tariff in 1913. Trade liberalization might have remained on a more permanent basis had it not been for the outbreak of the World War I. Protectionist pressures built up during the war years and maintained momentum after the war's conclusion. During the 1920s, America's trading partners were the Americas and Europe. With the World War I, US exports and imports both surged, rising in nominal terms from 15 to 20 and annually between 1913 and 1920. Imports from Europe downed, but imports from the Americas and Asia rose. The US trade surplus spiked as well. The war time surge in trade followed a dramatic drop in tariff rates in 1913 when Congress cut tariffs and introduced the federal income tax.

Once the war came to a halt, exports declined. Agriculture was particularly hard hit. In response, Congress implemented the Emergency Tariff Act of 1921

Table 1.1. Tariff History: Average Tariff Rates in the United States.

Tariff Laws and Dates	Average Tariff Rates^a (%)
McKinley Law, 1890	48.4
Wilson Law, 1894	41.3
Dingley Law, 1897	56.5
Payne-Aldrich Law, 1909	40.8
Underwood Law, 1913	27.0
Fordney-McCumber Law, 1922	38.5
Smoot-Hawley Law, 1930	53.0
1930–1949	33.9
1950–1969	11.9
1970–1989	6.4
1990–1999	5.2
2008	3.5

Source: u-s-history.com/pages/h963.html & Carbaugh (2018, p. 208).

^aSimple average.

and the Fordney-McCumber Tariff Act of September 1922, which was among the most punitive protectionist tariffs passed in the country's history. Average tariff rates increased between 1913 and 1922 from 27% to 36.5% of durable imports, while it was 16% in 1920. This tariff prompted retaliation from European governments. Nevertheless, American exports did not return to their World War heights at any point in the 1920s. It is noteworthy here to mention that tariff rates were a primary tool for manipulating trade because exchange rates were fixed by the international gold standard. When there was a trade imbalance, it was settled with international exchange of gold. Short of devaluation of gold value of its currency, a country could depreciate its currency to increase its exports (Olney, 2013, pp. 112–113).

Before and After World War II

The Roosevelt Administration (1933–1945) again engaged in liberal order building, embracing a vision of an open trading system and a world organization in which the great powers would cooperate to keep the peace. Beyond this, American architects of post-war order – drawing lessons from the Wilsonian failure and incorporating ideas from the New Deal period – also advanced ideas about economic and political cooperation embodied in the Bretton Woods institutions. It took ownership of the system. It provided “hegemonic services” to other states. It built an order that gained the participation of liberal democracies and various client states. But the weakness of post-war Europe and rising tensions with the former Soviet Union pushed liberal order building toward a much more American-led and

Western-centered system (Gamble, 2014, p. 110). In the decade after the World War II, countries around the world made decisions to adjust to American predominance. If during the last half century “all roads” led to the United States, it is possible that in the next half century “all roads” will lead to China (Jacques, 2009).

Outbreak of Banana War 1993–2001 and Beef War since 1985 and Others

Both disputes – Banana War and Beef War – have had a long history. The banana case stemmed from an EU effort to devise a common import regime for bananas in 1993. First in 1993, the EU put trade rules that provided preference to Western Europe’s former colonies in the Caribbean and Africa with respect to purchase of bananas. The United States objected to this policy because it constituted explicit discrimination against the sale of bananas to the EU from Central and South America by two US firms, Chiquita Brands and Dole Foods. The United States appealed the EU rules to the WTO, which ruled against the EU policy five times in six years, alleging that EU policies toward this product violated trade rules. Attempts at compromise were unsuccessful. In 1999, EU offers of compensation for lost exports in lieu of changing its banana regime were rejected by the United States. Ultimately, in April 1999, the United States levied retaliatory tariffs of 100% worth of \$300 million against 15 EU luxury products, including candles, cashmere sweaters and pullovers, Italian handbags, etc. (Cox, 1999, p. A19). In his detailed examination, James Cox showed that how as a result of trade war fallout, the global economy pulled innocent victims in the frying pan. To him, the US tariff on banana had invited unintended consequences. The sanctions were intended to punish European countries. Nay, the punitive tariff of 100%, had stopped Excide; a battery manufacturer from Reading importing and marketing its batteries. He also showed how the sanctions did hurt third countries. For example, Uzbek cotton growers who supply to Italian bedsheets manufacturers, as also Chinese wax processors who sell to German candle-makers, have been equally hard hit (Satapathy, 1999, p. 3583). However, this tariff action received the support of the WTO. Finally, in April 2001, the United States and the EU reached an understanding when the EU agreed to give greater market access to exports of US banana firms with a new system of import licenses and a revised quota/tariff system. The United States then ended the 100% ad valorem duties that it had imposed in 1999 (Phillips, 1999).

The United States and the EU have had a dispute related to the export of US hormone-treated beef to the EU since 1985. The beef case has its genesis in an import ban issued by the EU in 1985. In the beef situation, as with Bananas, the WTO has ruled against the EU policy several times. In July 1999, tariffs of 100% were levied by the United States on a number of EU products (Ahearn, 2002, p. 8).

One controversial US policy is the imposition of US tax relief to some companies. The WTO has ruled that such treatment is illegal, and, the US Congress has been attempting without success, to come up with an alternative (Murray, 2004, p. A4; Winestock, 1999).