

GLOBAL STUDIES AND INTERNATIONAL RELATIONS

THESIS

THE DEVELOPMENTAL STATE, HIGH-VALUE ADDED ACTIVITIES AND GRADUAL
LIBERALIZATION AS FOUNDATIONS FOR ECONOMIC DEVELOPMENT:

“RECALLING AND ANALYZING THE ANGLO-AMERICAN DEVELOPMENTAL
DYNAMIC TO GUIDE THE ROLE OF THE STATE AND MARKETS IN ACHIEVING
SUSTAINED ECONOMIC GROWTH IN DEVELOPING COUNTRIES”

MANUEL ANDRES SANCHEZ

COLLEGE OF PROFESSIONAL STUDIES

NORTHEASTERN UNIVERSITY

WINTER 2020

ADVISOR: PROFESSOR EDWARD MURPHY, PHD

226 pages

Abstract

Today, globalized mainstream development theories gravitate around the concepts that Adam Smith and David Ricardo introduced more than two hundred years ago. Nonetheless, the theories of both economists were not always as relevant and appreciated as they are today, especially in the developed world. Before the complex polarizing dichotomy between right and left ideologies, there seemed to be a strong consensus about the right path towards economic development based on concepts that largely contradict free-market ideals. Historical evidence shows that today's developed nations disregarded much of Smith's and Ricardo's theories and followed the concepts of forgotten developmental economists such as Antonio Serra, Robert Walpole, Alexander Hamilton, Friedrich List, Joseph Schumpeter, John Maynard Keynes, among others. These economists advocated for three basic convictions in order to achieve high-income levels. First, promotion of industrialization, diversification of high value-added goods and the abandonment of a natural resources-based economy. Second, to achieve this successfully, they were convinced it was not through laissez-faire economics, but through a strong and active presence of the State. Last but not least, although the importance of international trade was acknowledged, it was essential to protect local industries from international competition during their early and learning stages and that long-term success was tied to gradual liberalization. Disregarding and even criticizing these concepts, the strong economic liberalization and globalization policies of the last four decades have not been successful in turning poor or middle-income countries into high-income advanced ones, condemning the latter group to keep depending on natural resources and on the imports of technology from developed nations. Ironically, those nations that did not follow aggressive liberalization and emulated what nations such as Britain and the U.S did during their early development stages (three convictions), are the ones that did or have been doing better such as Japan, the Asian Tigers, Ireland, Finland, and of course, China.

Keywords: Free market, Free Trade, Industrialization, Gradualism, Government, Protectionism, Diversification

Table of Contents

INTRODUCTION	5
CHAPTER 1- THE BRITISH SHADOW AND FREE MARKETS: THE AMERICAN RELUCTANCY	18
THE ECONOMICS OF BRITISH COLONIALISM IN AMERICA: MERCANTILISM AND INDUSTRIAL RESTRICTIONS	18
BRITISH SUPREMACY AND ITS QUEST FOR GLOBAL LIBERALIZATION: SAME DYNAMIC, DIFFERENT TIMES.....	23
ALEXANDER HAMILTON, THE “BRITISH- AMERICAN DYNAMIC” AND THE BIRTH OF THE AMERICAN INDUSTRY: “DO AS THE BRITS DID, NOT AS THEY SAY”	27
CHAPTER 2: PROTECTIONISM, INFANT INDUSTRIES AND GRADUAL TRADE LIBERALIZATION: THE AMERICAN NATIONAL CREED AND THE INCONSISTENCIES OF LAISSEZ-FAIRE ECONOMICS	34
U.S TRADE POLICIES IN THE 19 TH CENTURY: “THE MOTHER COUNTRY AND BASTION OF MODERN PROTECTIONISM”	34
TRADE POLICY DISCREPANCIES AND THE AMERICAN CIVIL WAR: “NO SLAVERY REALLY MEANT PROTECTION AND INDUSTRY”	37
AMERICAN TRADE POLICY DURING THE LATE-19 TH CENTURY AND 20 TH CENTURY	40
THE MYTH OF FREE TRADE AND FREE MARKETS: INCONSISTENCIES WITH SMITH’S, RICARDO’S AND COBDEN’S THEORIES	44
THE CONSENSUS ABOUT FREE TRADE: A MATTER OF TIMING AND GRADUALISM	52
CHAPTER 3: INDUSTRIALIZATION AND HIGH-VALUE ADDED GOODS AND SERVICES: THE “RIGHT” ECONOMIC ACTIVITIES	56
COMMODITIES AND SUSTAINED ECONOMIC GROWTH: BRITISH VS SPANISH EXPERIENCE	56
INDUSTRY OVER AGRICULTURE: INCREASING RETURNS VS DIMINISHING RETURNS	63
EXPANSION OF THE MIDDLE-CLASS: THE PROSPERITY VIRTUOUS CYCLE	70
CHAPTER 4- THE AMERICAN DEVELOPMENTAL STATE: A KEY BUT IGNORED PLAYER IN AMERICAN HISTORY.....	78
ESCAPING FROM NATURAL RESOURCES AND SUCCESSFUL CAPITALISM: IT DOESN’T HAPPEN JUST BECAUSE	78
DIVERSIFICATION OF THE AMERICAN ECONOMY: GOVERNMENT’S CONSCIOUS AND CONTINUOUS SUPPORT FOR TECHNOLOGY, SCIENCE AND INNOVATION	85
FOREIGN DIRECT INVESTMENT, INTELLECTUAL PROPERTY RIGHTS AND BANKING	94
INFRASTRUCTURE AND SOCIAL SAFETY NETS.....	98
CHAPTER 5- OTHER DEVELOPMENT CASES: SUCCESSFUL EMULATORS OF THE ANGLO-AMERICAN EXPERIENCE.....	107
FRANCE.....	107
GERMANY	109
OTHER CASES: SWEDEN, CANADA, SWITZERLAND AND AUSTRALIA	111
JAPAN: THE FLYING-GEESE LEADER	115
SOUTH KOREA	120
SINGAPORE	123
OTHER LATE- INDUSTRIALIZERS:.....	125
<i>Finland</i>	125
<i>Ireland</i>	127

<i>Other European Cases</i>	128
CHINA	129
THE MARSHALL PLAN: REINDUSTRIALIZATION FOR ECONOMIC RECOVERY.....	133
KEYNESIANISM: THE STATE REGULATION FOR PROSPERITY AND STABILITY	136
CHAPTER 6- THE WASHINGTON CONSENSUS AND THE NEOLIBERAL ERA: THE AMERICAN SHADOW?.....	140
THE WASHINGTON CONSENSUS AND THE RISE OF NEOLIBERALISM.....	140
REVERBERATIONS OF THE NEOLIBERAL ERA THROUGHOUT THE DEVELOPING WORLD.....	147
IMPACT IN AFRICAN NATIONS.....	149
IMPACT IN LATIN AMERICA.....	151
FORMER SOVIET STATES	154
FINANCIAL CRISES.....	155
POVERTY REDUCTION	157
REVERBERATIONS OF THE NEOLIBERAL ERA IN THE U.S	158
THE QUESTION ABOUT FREE TRADE AND INTERNATIONAL AID	168
INTERNATIONAL AID	175
DEINDUSTRIALIZATION AND THE RETURN TO NATURAL RESOURCES: CASES IN THE DEVELOPING WORLD.....	177
<i>Peru</i>	177
<i>Mexico</i>	180
<i>Zimbabwe</i>	183
<i>Ghana</i>	184
<i>Mongolia</i>	185
<i>Nigeria</i>	186
CONTESTING SOME NEOLIBERAL CONCEPTS: GRADUALISM AND PRUDENCE.....	186
<i>Trade and Industry</i>	187
<i>Foreign Direct Investment (FDI)</i>	191
<i>Intellectual Property Rights (IPRs)</i>	193
CHAPTER 7: CONSTRAINTS FOR 21ST-CENTURY INDUSTRIALIZING NATIONS: THE QUEST FOR A NEW DEVELOPMENT RECIPE	196
DEINDUSTRIALIZATION: BENEFIT OR DETRIMENT?.....	196
THE SERVICE ECONOMY AND ITS DISADVANTAGES FOR DEVELOPMENT	201
DEINDUSTRIALIZATION AND THE SERVICE ECONOMY IN THE U.S	206
21 ST CENTURY: ADDITIONAL CONSTRAINTS FOR THE TRADITIONAL INDUSTRIALIZATION PATH.....	210
<i>Industrialization 4.0</i>	211
<i>The Influence of China in a Globalized World</i>	213
<i>Sustainability and the Environment</i>	215
CONCLUSIONS.....	218
BIBLIOGRAPHY	227

INTRODUCTION

Today, most of the global economic development theories within the academia and policymaking heavily gravitate around the basic concepts that the famous British economists, Adam Smith and David Ricardo, introduced more than two-hundred years ago, which is why there are often referred as the “fathers” of modern economics. According to mainstream economics, the neoclassical liberal model of economic development, based on Laissez-Faire (French for “Leave alone”) principles of economic liberalization, minimal state intervention, free trade and market fundamentalism, was responsible for the great socioeconomic and technological development achieved by the now rich and industrialized nations of the first world, especially in the case of Britain and the United States, the two greatest and most avid followers of free markets since the 19th century. Thanks to their adherence, trust and strong commitment to economic liberalization and Adam Smith’s “Invisible Hand”, the British and the Americans became the economic and military hegemons of their time, which is why the other economic players also followed the same free trade and free market principles in their attempt for not to be left behind and remain competitive within the every time more integrated global economy. On the other hand, those nations that implemented economic strategies that deviated from Adam Smith’s and David Ricardo’s economic precepts, such as heavy state intervention in the economy, subsidies, trade protection and restrictions as well as other policies that “flirted” with elements from those of a centrally-planned economy, witnessed continuous economic downturns, developed corrupt and inefficient institutions, lost their international technological competitiveness and, thus, remained as low or middle-income developing nations.

In this way, in the early-1980s, and after decades of inefficient and market-hostile Keynesian policies, the post-World War II economic paradigm of Bretton Woods was finally

dismantled alongside its ill-advised economic strategies that hindered market forces by keeping them in check, without letting them unleash their full potential to bring sounds economic growth and prosperity to both the developed and developing world. Again, the two main precursors and main exponents of the “Invisible Hand” and “Laissez-Faire” economics, the United States and the United Kingdom, lead at that time by President Ronald Reagan and Prime Minister Margaret Thatcher, started to preach in favor of globalization, economic liberalization and deregulation of markets in order to boost economic performance of world markets and increase income levels at a worldwide level, especially in less developed countries. Since this was a clear attempt to revive the “successful” theory of neoclassical liberalism implemented more than a century ago, this new movement came to be known as neoliberalism. Therefore, developed nations, led by the United States, and in a firm alliance with the International Monetary Fund (IMF), the World Bank, the U.S Department of Treasury and the nascent World Trade Organization (WTO), developed a set of macroeconomic reforms composed by a series of economic policy prescriptions for developing countries (known as the Washington Consensus) to follow in order for them to boost their economic growth and finally achieve the so-long desired socioeconomic development, which these countries were still struggling to reach (H. Chang & Grabel, 2005, p. 14).

These economic development prescriptions were strongly based on neoliberalists ideals and the concept of laissez-faire economics, which emphasized that a minimal state intervention in economic and social affairs, as well as the economic liberalizations in what concerned to trade, markets, investment, and finances, were crucial policies for sustained economic growth and the subsequent human progress. Advocates of the Washington Consensus spread the idea that unlimited competition operating in an unregulated free market was the best path towards sustained economic growth and development because it would only create a virtuous cycle based

on private entities and industries operating with maximum efficiency. In a similar way, the Washington Consensus effectively spread the idea among developing world that “government intervention is harmful because it reduces competitive pressure by restricting the entry of the potential competitors by import controls, monopolies, subsidies, etc.”(H.-J. Chang, 2009, p. 13). Thus, the state’s role was "Satanized" in the developing role as it was perceived not as a propulsor of economic growth but as the principal obstacle to achieve growth.

Under this new development scheme, Washington Institutions (the IMF and the World Bank) started to attach the so-called “conditionalities” to the provision of economic and financial aid such as loans or debt relief to developing countries (Harvey, 2011, p. 29). These conditionalities were based on the principles of the Washington Consensus (which will be explored more in depth). In other words, developing countries who wished to receive assistance from these institutions should comply with the conditions and implement aggressive economic and financial liberalization policies within their domestic markets. Those who followed this advice and policies were regarded as “stars” or “good students”, while those who rejected them were often criticized, seen as pariahs and even isolated from economic integration. Taking this into consideration, it is both important and relevant at this point to use a brief reflective and historic example regarding economies and the economic strategies that led them to either success or failure. Let’s consider that there are 5 different but anonymous countries who are applying for either an IMF or World Bank loan, so naturally, their economic profile must be assessed in order to determine how far away they are from the “right” economic policies of “Laissez-Faire” economics. The countries in question and their economic profile are the following:

- a) **Country 1:** This country has had tariff rate up to 50% in the industrial sector for more than 100 years and protects its local industry through other important trade restrictions. There are even export bans of key raw materials. It has tight controls on cross-border capital flows with a banking sector that is highly regulated. There are many restrictions on foreign ownership of financial assets and local laws often benefit indigenous companies in detriment of foreign ones since the latter are more strictly regulated and often pay higher tax rates. There is a long tradition of ignoring foreign patents and other intellectual property rights (Best, 2018, p.63). There are large numbers of public companies in many key sectors, many of which also flourished and survived thanks to public funding and subsidies. The government has played a critical role in promoting and nurturing key industries in high tech and manufacturing, and public funding of research & development project within the country reaches up to 70%. Here, the government initiative has also been essential to provide companies, industries and the society with huge infrastructure projects that have been critical for development (H.-J. Chang, 2012, p. 89).
- b) **Country 2:** This country has tariff rates above 30% for the industrial sector, it imposes important restrictions on foreign trade and strict controls on the inflow and outflow of capitals. The banking sector is public, and it is highly regulated, there are many restrictions to Foreign Direct Investment (FDI) and foreign firms also face open discrimination against them in favor of national companies, many of which are State-owned (Mitchell & Fazi, 2017, p. 55). The latter often suffer great losses but have survived and sometimes flourished thanks to government subsidies and other incentives. The local authorities have a widely known disregard for intellectual property rights and their protection. The government plays an active role in promoting key industries such as manufacturing, aerospace, computers, 5G and

artificial intelligence, all by different means like public funding and intensive research & development policies. The country experienced a boom in productivity thanks to a massive public investment in infrastructure, education, housing and health care (H.-J. Chang, 2012, p.89).

- c) **Country 3:** This country has a long tradition of active government intervention in guiding the economy. It has protected its nascent industries against more efficient foreign competitors with high tariffs against foreign manufactures and other trade measures such as the reduction or banning of import duties on raw materials used for manufactures, duty drawbacks on imported raw materials used for exported manufactures and abolition of manufactures' export duties. The government also sometimes completely banned the import of superior products from abroad if they happened to threaten its local industries (H.-J. Chang, 2002, pp. 21–24). Local authorities tend to discriminate against foreign ownership and even prohibit investment by foreigners in key sectors of the economy. This country even introduced the concept of marking foreign products with the “Made in” label with the intention of informing its people that a given product was foreign and could threaten local manufactures, so they will opt to buy those produced locally (Ulrich, 2012). The national creed when it came to economic development has been based on mercantilist practices for more than a century.
- d) **Country 4:** Contrary to the previous cases, this country avidly followed the recommendations from Washington Institutions and embarked itself in a rapid process of economic, financial and trade liberalization and deregulation. Tariffs were significantly reduced and all quantitative restrictions to trade were removed. The role of the state in the economy was drastically diminished as subsidies for industry and agriculture were eliminated, low government spending was pursued in order to reduce budget deficits, labor

regulations were relaxed, and most State-owned enterprises were aggressively privatized in order to boost their efficiency. National borders were opened for foreign investments and capital flows, significantly deregulating the financial sector. Moreover, a strict framework to the protection of intellectual property rights (especially those of foreigners) were also instituted in order to attract further FDI. Hence, we can refer to this country as one of the “ideal students” of the Laissez-Faire school. In fact, the country earned a commendation in 1994 from the U.S State Department for undertaking a comprehensive trade liberalization (Rodrik, 2009, p. 220).

At first glance, and according to the mainstream economic theories of free markets and free trade, it is pretty clear that the first 3 countries are following the “wrong” economic strategies for development, while the last country is on the right track and probably a high-income OECD member is actually the anonymous country number 4. On the other hand, the first 3 countries are probably referring to the case of low-income developing countries, plagued with inefficient government intervention and trade regimes that only hinder economic and social prosperity. In reality, country #1 is the United States in the late-19th century and the first part of the 20th century; country #2 is China during the last 4 decades; country #3 is the United Kingdom during the 18th and part of the 19th century. As we can see, the first 3 countries, the economic hegemons or ‘stars’ of their time during the last 300 years, were (and in many aspects still are) deeply involved in pursuing the “wrong” economic practices that are supposed to hinder economic development and condemn countries to underdevelopment according to Laissez-Faire theory, free market economists such as Milton Friedman or Friedrich Hayek, and the Washington Institutions.

How come the United States decided to emulate the British economic strategies that helped the latter become the world economic, political and military hegemon during the 18th century and large part of the 19th century, if these were so counterproductive and detrimental for economic growth? How come China be making the same mistake by emulating many of the American economic strategies (inspired by the British experience) that ultimately helped the U.S to become the richest and most powerful country in human history, if these strategies were in clear conflict and opposition to the current orthodoxy of economic, trade and financial liberalization? In fact, these nations were not alone in their challenge and reluctance to fully adopt “laissez-faire” recipes, especially during their early stages of development. The same trend can be found in the economic history and policy records of most of today’s developed countries such as Germany, France, Italy, Finland, Norway, Ireland, Sweden, Canada, Australia, New Zealand, and of course also in the case of the East-Asian countries (Singapore, South Korea, Japan, China, Taiwan), many of which have experienced an impressive economic performance and incredibly fast economic growth during the second half of the 20th century.

But what about country #4? This country is actually referring to the case of Haiti since the mid-1980s. The now poorest country of the western hemisphere, deeply trapped in a vicious cycle of economic stagnation and crisis, unproductive economic structures (subsistence agriculture and low-skilled activities), massive poverty, depressing social indicators in terms of health, nutrition, education, as well as constant political instability (Rodrik, 2009, p. 221). The country is now basically dependent on foreign aid and thousands of Haitians have been forced to emigrate to other countries, while local manufacturing and agricultural industries have been practically wiped out, unable to bear against foreign competition. According to the IMF, per capita income dropped from around \$600 in 1980 to \$369 in 2000, and now 2 out of 3 Haitians

live in rural areas, where billions of dollars in international aid had little effect in improving living conditions (Dobbs, 2000). Unfortunately, Haiti is not an isolated case, many countries throughout the developing world that blindly put their faith and efforts to follow the Structural Adjustment Programs (SAPs) or the so-called “Shock Therapies” promoted and sponsored by the Washington Institutions experienced similar outcomes (although not as critical as in the case of Haiti).

The abrupt economic and financial liberalization and deregulation of their economies did not achieve the promised and desired results of boosting economic growth, increasing real incomes and spreading social prosperity. The opening of domestic markets overnight, before strong financial institutions and a competitive-industrial structure were established, resulted in the destruction of local industries (deindustrialization), rising unemployment, fall of real wages, increased poverty and a return to the reliance on raw materials (Stiglitz, 2018, p. 116). The retreat of government intervention in key areas of the economy (subsidies, incentives, funding, and trade protection) and the society (most countries still had weak social safety nets) due to the significant cuts in government spending in aspects such as education, health care and housing, further helped eroding the economy and social prosperity indicators, especially in Sub-Saharan Africa and Latin America. In fact, the 1980s is known as “The Lost decade” in Latin America as economic growth halted, real incomes fell, and subsequent financial and social crises not started to affect different countries in the region and became a constant phenomenon throughout the world (Mexico, Argentina, Russia, Asian Crisis, Indonesia, Peru, Kenya, etc.) (Stiglitz & Charlton, 2005, p. 20).

Even countries that used to be industrial giants such as Russia, a country that was subject to the “Shock Therapy” (Neoliberal Shock) in the early-1990s after the dissolution of the

Soviet Union, which forced an aggressive transition to a market economy with liberalization, deregulation and privatization of the economy, saw their per capita income declined at 3.5% annually, large part of population fell into poverty, and male life expectancy declined by 5 years. According to Nobel Price-winning economist and former Senior Chief economist at the World Bank, Joseph Stiglitz (2018, p. 235), the devastation in loss of GDP was greater than Russia has suffered in WWII, since during the 1940-1946 period, the Soviet Union industrial production fell 24%, while during the 1990-98 period, it fell 42.9%, and the total GDP fell by 43%. Furthermore, he also states that in 1989, only 2% of Russian were poor but by 1998, the figure escalated up to 23.8%, using the 2 dollar per day standard (Stiglitz, 2018, p. 244). As a result, Russia not only saw its economic indicators plummet (even though many billionaires were indeed created by the liberalization and privatization process, which also contributed to significantly raise inequality), the country was abruptly deindustrialized at the point that it now heavily relies on the export of oil and gas to sustain its economy. Moreover, it is also important to highlight that this reconfiguration of the world economy did not seem to be that beneficial to developed countries either, since the average worldwide growth rates during the 1980s and 1990s were 1.4% and 1.1% respectively, while this figure reached 3.5% in the 1960s and even 2.4% during the convulsed 1970s (Harvey, 2011, p. 155).

As mentioned before, the real economic history of the world's most advanced nations is not by any means a perfect case of adherence and compliance of free market, free trade and laissez-faire economics. The theories of Adam Smith and David Ricardo were not always as relevant and appreciated as they are today, especially in the countries that now comprehend the developed world. Before the advent of communism, the cold war and the complex polarizing dichotomy between right and left ideologies, there seemed to be a strong consensus among

economists and policymakers about the right path towards economic development, a path that was mostly based on concepts that largely contradict the modern economic ideas of market fundamentalism and the “invisible hand”.

As a matter of fact, evidence shows that today’s developed nations pretty much disregarded Smith’s and Ricardo’s theories and followed the concepts of other recognized but often forgotten developmental economist and policymakers such as Antonio Serra, Ferdinando Galiani, Robert Walpole, John Stuart Mill, Jean Baptiste Colbert, Alexander Hamilton, Friedrich List, Werner Sombart, Karl Polanyi, Joseph Schumpeter, George Marshall and, of course, John Maynard Keynes. During their time, all these economists advocated (each one with its particularities and nuances) for 2 basic convictions in order to escape poverty and boost economic development.

These 2 convictions were: (1) choosing to concentrate and foster the right economic activities, that is the promotion of industrialization, diversification of the economy towards high value-added goods (and services) and the abandonment of an agrarian or natural resources-based economy; and (2) the way to achieve this in a successful manner, which they were convinced wasn’t through laissez-faire economics at all, but through a strong and active role of the State not only in settings the political, legal, social and economic institutions but also in designing and implementing industrialization policies by supporting and incentivizing local industries (either public or private), and protecting them from international competition during their early-learning stages. Moreover, significant amounts of public investment in public and merit goods¹ were also

¹ Public goods include defense, public order, and justice, while merit goods includes health, education, and other services that could have been provided privately (Fiorito & Kollintzas, 2004).

considered as crucial complement for a successful development process, as it would bring political and social stability by correcting the widely known market externalities and failures. It was quite clear that markets were not perfect and leaving them unchecked was not a wise choice whatsoever (Martinez, 2009, p. 14). In short, these economists were sure that efficient capitalism and prosper markets do not occur “just because” or spontaneously as the theory of the “invisible hand” suggests and that it was the State’s role to make sure that both the interests of capitalists and the society were aligned. Thus, it is important is to clarify that these were not theories aiming for a Soviet or Maoist-style of government intervention based on a centrally planned economy.

The writings of these economists and policymakers showed that they were already aware of the problems of relying heavily in natural resources or what we now refer as “the natural resources curse”, despite the fact that under David Ricardo’s theory of comparative advantage, specializing on agriculture and natural resources would be logical and recommended if a country was efficient in those activities (like the US). In fact, these economic activities were associated with the law of diminishing returns, perfect competition, dependence from international markets and small income gains due to the volatility and low value-added nature of raw materials (Reinert, 2008, pp. 5–6).

These concepts have been present since the times of King Edward III in England, passing through Venice golden era, the rise of European empires, the conception of an Industrial United States by Alexander Hamilton, the Marshall Plan, the Asian Tigers’ miracle and the recent rise of China. Furthermore, the dichotomy between “good vs bad trade” was already known, associating “bad trade” to the concept of exporting natural resources and importing manufactured goods (what is also known as asymmetrical trade), while “good trade” was the

opposite (Reinert, 2008, p. 89). Although international trade was considered fundamental for good economic performance (autarchy was not in the equation), the world powers were very far from implementing free trade policies during their developmental phase. It was understood that trade liberalization was a very complex and precise mechanism, whose success was tied to properly designed protectionist policies and gradual liberalization as the local industries became competitive enough to withstand foreign competition.

All these practices and policies seem to be very contradictory to what most development economists, developed governments and international organizations have been recommending to developing countries in the last decades. It is pretty evident that high-income nations such as the U.S relied not on laissez-faire economics but on economic pragmatism during their developmental stages (Martinez, 2009, p. 30). However, most of the economists and policymakers mentioned before, were also convinced that protectionism and Government intervention were only needed during a certain period of time, as it could harm economic growth and the competitiveness of industries if used perpetually and indiscriminately. It was only after a country's industries and economy were mature and strong enough that they could start benefiting from trade and financial liberalization (gradualism) as they could start gaining access to foreign markets and invest their capital surpluses abroad (H.-J. Chang, 2009, p. 17).

This is why the British were the first to preach in favor of free trade at the international level in the mid-19th century (but Americans and Europeans were reluctant to do so at that time) and in part also explain why the U.S and other developed nations now preach free trade and economic liberalization to the developing world (although the latter are now tied by multiple multilateral and bilateral agreements that restrain their ability to emulate high-income nations' early-development policies and many times have no other option but to adopt the laissez-faire

recipe). Interestingly, it can be said that not even now the U.S and other developed countries fully practice laissez-faire economics, as many of their governments still heavily subsidize or give different incentives to their agricultural, industrial and financial sectors, and still play a crucial role in terms of R&D in advanced industries (Adameo, 2020b).

Hence, the dynamic between an already industrialized-rich nation encouraging the adoption of free trade and laissez-faire market policies in an deindustrialized-poor, agrarian or developing nation, will be referred from now on as the “British-American Asymmetric Dynamic”, as it was exactly the case between the United Kingdom and the United States during the colonial (18th century) and post-colonial era (19th century).

As previously mentioned, the results of strong economic liberalization of the last decades, despite some achievements, have not been encouraging, so far, in turning poor or middle-income countries into high-income, prosper and technologically advanced ones, as the gap between advanced and developing nations remains (and even widens in some cases), condemning the latter group to keep depending on natural resources (many of the liberalization policies destroyed the infant industries of developing countries as they were unable to compete with those of the advanced nations without any kind of protection) and on the imports of technology, advanced services and industrial goods from advanced nations.

Ironically, those nations that did not follow the recommended policies of the Washington Consensus and actively pursue industrialization policies, trying to emulate what the British and Americans did themselves, are the ones that did or have been doing better such as Japan, the Asian Tigers, Ireland, Finland, Norway, Spain, Vietnam, India, and of course, China. However, developing nations might have a harder time in trying to emulate the British or Americans in the 21st century, not only because of the already mentioned series of trade and

economic agreements that significantly deprive them from total independence in terms of choosing economic policies, but also due to the pressures and features of a globalized economy, the manufacturing role of an industrial giant such as China, the rising phenomenon of deindustrialization and the intangible economy, as well as the environmental concerns that now threaten the planetary boundaries. Therefore, the key for a sustained economic development in developing countries in the 21st century still needs to be profoundly analyzed and designed around these new constraints. Nonetheless, modern history has shown that the best path towards high-incomes, social prosperity and sustained economic growth relies on diversifying the economic structure of a country towards high-value added goods and services, an endeavor in which the State has always played a crucial role as it needs significantly doses of coordination and market failures corrections.

CHAPTER 1- THE BRITISH SHADOW AND FREE MARKETS: THE AMERICAN RELUCTANCY

The Economics of British Colonialism in America: Mercantilism and Industrial Restrictions

Traditionally perceived as the home of free trade, free market liberalism and the prominent economists Adam Smith and David Ricardo, Britain (especially England), actually achieved its position as an industrial and economic hegemon during the 18th and 19th centuries through an explicit and avid pursue of government-led industrialization and strong protectionist policies when it came to international trade. In 1721, Robert Walpole (1676-1745), considered as the first British Prime Minister, gave a speech to the parliament in which he said: “It is evident that nothing so much contributes to promote the public well-being as the exportation of manufactured goods and the importation of foreign raw material” (Heing, 2017, p. 17). After

this, Walpole strengthened the British legislation in a deliberate attempt to promote manufacturing industries by protecting them from foreign competition, subsidizing them and encouraging them to export, in a clear mercantilist fashion.

In this way, tariffs on imported manufactures were dramatically raised while import duties on raw materials used to produce manufactures were lowered or even eliminated; and manufacturing exports were encouraged by measures such as export subsidies, abolition of export duties, duty drawbacks and strict regime of exports-quality standards were established by the government (H.-J. Chang, 2002, p. 20). The British government also promoted the establishment of industrial clusters around high-tech activities, continuous mechanization, conscious targeting of supported industries, temporary monopolies and patents for targeted industries, maximization of the division of labor, attracting high-skilled foreigners, tax breaks and cheap credit for targeted industries and strengthening of education for high-skilled activities (Reinert, 2008, p. 83).

Many of these policies that have been or are still being used by many other nations are actually British innovations in the field of trade policy (H.-J. Chang, 2009, p. 44) and is why Britain can be considered as the first modern nation to perfect the implementation of the so-called “Infant-Industry Promotion” strategy, a policy that would be critical for the future development of countries such as the U.S, Japan, Germany, South Korea and China.

It is important to highlight that Walpole was not a precursor when it came to the active pursue of an industrial policy by the State. In fact, Daniel Defoe (1660 – 1731), the 18th-century writer, politician and merchant, famously known for being the author of the novel *Robinson Crusoe*, describes in his book *A Plan of the English Commerce* (1728) how the Tudor Monarchs, especially Henry VII (1457-1509), used different means of government intervention to develop

England's woolen manufacturing industry (Europe's high-tech industry at the time) and did not rely at all in the ideals of free market (Heing, 2017, p. 16). Defoe explains how before the Tudors, England was a relatively backward country, exporting cheap raw wool and importing expensive processed wool from the woolen-manufacturing heart of Europe, the low countries, who raised much greater profits by selling higher-value added manufactured wool products to England and other kingdoms (H.-J. Chang, 2009, p. 43).

According to Defoe, King Henry VII realized that England was in the wrong business, deciding to change that situation in order to make England a textile-producing nation rather than just an exporter of basic raw materials (Reinert, 2008, p. 80). Thus, Henry VII implemented similar policies to those that Walpole would implement centuries later, as he increased the tax on the export of raw wool (sometimes temporarily banned its export) and banned the export of unfinished cloth as a way to encourage the processing of the raw material in England (H.-J. Chang, 2009, p. 45). The notable German American economist, Friedrich List (1789 – 1846) stated in 1841 that for centuries England's policy for economic development was based on the simple rule of importing raw materials and exporting industrial products, while the awarded Norwegian economist Erik S. Reinert (1949) explains that the fundamental principles of Henry VII economic policy toolbox have been mandatory ingredients in the economic strategy of all countries that have achieved high-income levels and wealthy societies (Reinert, 2008, p. 81).

After reviewing the Tudor's and Walpole's efforts, it is no coincidence that Britain was the birthplace of the industrial revolution in the mid-18th century, a phenomenon that allowed the British to increase its technological lead over the other nations, especially its traditional rivals such as Spain, France and the Dutch. Despite the success of the mercantilist system established by Walpole, Adam Smith (1723-1790) was an avid critic of Walpole's vision, because he argued

that government intervention in the economy through subsidies and monopoly rights, restrictions on competition through protectionism and anti-free trade policies were essentially detrimental for the British economy (Chang, 2009, p. 45); arguments that were part of his thesis in favor of free market (which will be discussed later) in his now-famous book *The Wealth of Nations*, published in 1776.

Going back to Walpole's vision, his plans were not only focused inside Britain but also abroad. By the time Walpole was in office, the British empire had already conquered vast territories and installed colonies throughout the globe. It could be supposed that the British would have wanted their colonies to adopt the same economic strategies they used in order to develop, however, Walpole intention was to make absolutely sure that the colonies still relying in the production of raw materials never emerged as competitors to British manufactures and industrial supremacy, as the goal was for the British industries to have a monopoly over the most profitable high-tech activities (H.-J. Chang, 2002, p. 46).

As a matter of fact, the British were already banning imports of superior products from some of its colonies if they were considered a threat to British industries. In that way, the 1699 Wool Act suppressed the exports of woolen-based products from the colonies and another law in 1700 established a ban on the imports of Indian cotton textiles. The result was the upgrading and strengthening of British textile industry but also the destruction of the Irish wool industry and the Indian cotton industry (Heing, 2017, p. 22). It is clear that many British industries would have not had the chance to surpass foreign competitors or even survive if it was not for the aid of the Government.

Acknowledging the potential of the American colonies, evidently, they also became a target of Walpole's anti-industrialization policies in for the British colonies. The American

colonies were deprived from policy independence as the British imposed a series of commercial and industrial regulations aiming to restrict American colonies to the production of raw materials and make them dependent on the import of British manufactured goods (Andreas, 2014, p. 103).

In 1651, the Great Navigation Act was also enacted which stated that only English ships would be allowed to bring goods into England, the imposition of multiple fees and commissions in order to control everything going into or out of its colonies, and that the American colonies could only export its commodities to England (Cohen & De Long, 2016, p. 31). Moreover, American colonies were denied from using tariffs to protect their nascent industries, the manufacture of high-tech products (e.g. machinery and steel) that could compete against the British ones was banned, while the colonies were also given export subsidies for commodities and Walpole abolished tariffs in Britain for raw materials produced in America in an attempt to discourage American from trying to dabble in manufacturing activities (H.-J. Chang, 2002, p. 52). Even one of Walpole's successors, Prime Minister William Pitt (1708-1778), declared in 1770 that the American colonies should not be permitted to manufacture so much as a horseshoe nail (A. Green, 2013, p. 315).

Additionally, the British started to make effort in the mid-18th century to protect its industrial secrets from being taken and copied in competing nations. In 1774 the British banned the emigration of skilled artisans and mechanics to the colonies and even prohibited textile printers from leaving the British Isles (Andreas, 2014, p. 103). Furthermore, with the implementation of the Corn Laws² (1815) and the Navigation Act still in place, tariffs went from

² The Corn Laws were tariffs and other trade restrictions on imported food and grain designed to keep grain prices high to favor domestic producers, blocking the import of cheap grain and making it too expensive to import grain from abroad (Encyclopedia Britannica, n.d.).

representing 20% of the British Government revenues in 1820 to 44.2% in 1840 (Reinert, 2008, p. 142).

British supremacy and its quest for Global Liberalization: Same Dynamic, Different Times

British policymakers were wise enough to recognize that the active-State policies that incentivized and protected its domestic industries with outstanding success, should not be maintained indefinitely as perpetual protection and dependence from the State would, eventually, become counterproductive for their performance, especially after the local industries had become strong enough and internationally competitive. In that sense, economist Erik Reinert (2008, p. 81) states that here lies the fundamental understanding of free trade and proper timing since “successful industrial protection this carries the seeds of its own destruction”. Hence, by mid-19th century, protectionist policies became less and less necessary and many British manufacturers started to claim for trade liberalization as it was in their interest to access larger international markets in search for profits and a place to invest their capital surpluses in order to keep growing (H.-J. Chang, 2009, p. 46).

The growing demographic and industrial pressures also pushed the British to concentrate on foreign markets as cheap-food sources, which is why Britain stopped protecting its own agricultural and industrial sector while at the same time immerse itself in a quest to convince other nations to do the same (Reinert, 2008, p. 55). Therefore, in 1846, British Parliament repealed the Corn Laws; subsequently did the same with the Navigation Act and many other anti-free trade policies, and virtually all tariffs were abolished by 1860 (Heing, 2017, p. 19). In short, after becoming the industrial and technological leader not only in Europe but in

the whole world, the British industries did not longer need for an active State to nurture them and shelter them from foreign competitors and started to preach for free trade and “laissez-faire” economics. It is important to stress the fact that, despite Adam Smith’s arguments against the anti-free trade State policies, he was basically ignored by the mainstream policymakers at the time to the point that Smith’s vision was only fully adopted (in 1860) after almost a 100-years from the publishing of ‘The Wealth of Nations’ (1776).

As stated before, after the British began to liberalized their trade and markets, they also began to use their political and economic influence in order to induce (and sometimes force) other countries to adopt the same “laissez-faire” policies without any consideration about the other nations’ level of industrial development and competitiveness. Besides the attempts to convince the already independent United States (case that will be analyzed more in depth), the British also attempted to do the same with another competitor that had a great potential to become an industrial muscle, the German states³.

In 1840, British economist and Diplomat, John Bowring (1792–1872) “explicitly advised the member states of the German Zollverein to specialize in growing wheat and sell the wheat to buy British manufactures” (H.-J. Chang, 2009, p. 47). Nonetheless, it was one thing to try to convince or, even less, force direct British competitors in the 19th century, who were also economic and military powers such as the French, Russian and German Empires (and the U.S to a lesser extent) from adopting free trade policies, but it was another to do so not only with the British colonies (who were already forbidden from industrializing and forced to remain as

³ Germany would not be born as a modern nation-state until the German reunification of 1871, led by the famous German statesman, Otto Von Bismarck (1815-1898).

exporters of raw materials) but also with other “semi-independent”, poor and backward nations in Latin America, Asia or Africa. For this group of nations, the British had enough economic, diplomatic and even military influence to ensure that these countries would embrace the ideas of Adam Smith and David Ricardo.

Countries such as China, Japan, Thailand, Iran, the Ottoman Empire and others in Latin American were forced to sign unequal and unfair trade agreements⁴ in the second half of the 19th century, which opened their domestic markets to foreign products and investments (mainly British), adopting policies such as low tariffs of around 5% and deprivation of tariff autonomy for several years⁵ (Martinez, 2009, p. 142). On the matter, South Korean and Cambridge University Institutional economist, Ha-Joon Chang (2002, p.54), indicates that the imposition of these free-trade treaties was a clear attempt to impede the industrial development in developing countries, something that resembles the current dynamic between developed and developing countries and the proliferation of Free Trade Agreements (FTAs). Chang (2009, p.25) also indicates that most of the colonies and countries under unequal trade treaties performed very poorly between 1870 and 1913.

For instance, while per capita income in Western Europe and the U.S grew at an annual rate of 1.3% and 1.8%, respectively; the same figures in Asia and Africa grew at an annual rate of 0.4% and 0.6%, respectively. In overall, the British strategy was successful in these countries as they remained deindustrialized, specializing in the production of low value-added natural

⁴ In 1941, when Winston Churchill was trying to convince President Franklin D. Roosevelt to enter the war against the Axis Powers, Roosevelt took the opportunity to vent his frustration over the historical injustice of British economic policy, telling Churchill that those Imperialist “trade agreements are the cause why people of India, Africa and of all the colonial states, are still as backward as they are”(Reinert, 2008, p. 168).

⁵ For instance, Japan, Turkey and China would have to wait until 1911, 1923 and 1929, respectively, to regain tariff autonomy (H.-J. Chang, 2002, p. 54).

resources and exporting them cheaply to industrialized and wealthy nations such as Britain, and heavily dependent on the latter for the import of expensive manufactures and high-tech goods (Martinez, 2009, p. 142). Thus, in 1842, Friedrich List criticized the British for preaching free trade to other countries as a way to seize their markets and prevent the emergence of competitors, while having achieved economic and industrial supremacy through tariffs, subsidies and extensive protectionist policies, which were a far cry from “laissez-faire” and Adam Smith’s “invisible hand”. (De Vogli, 2013, p. 111). Ironically, the free trade fever in Britain did not lasted very long since by the end of the 19th century, British manufacturers were asking the Government for protection as they started to struggle against the growing American and German industries, and they succeeded in 1932 when the British Parliament reintroduced tariffs after losing its technological advantage against the U.S, Germany and even Japan (H.-J. Chang, 2002, p. 24).

As it can clearly be seen, the successful British development strategy was based on active government sponsorship in favor of industries, the dynamic combination of synergies between industries, the State and the society as well as constant innovation under conditions of premeditated specialization in high-tech activities and diversification (Reinert, 2008, p. 76). However, as Ha-Joon Chang theorizes, the British became wealthy and an economic hegemon not only by not relying on free trade and Adam Smith’s “invisible hand”, but also by “Kicking away the ladder” of development for other nations since the British explicitly attempted to impede other nations from emulating them and using the same economic policies that Britain followed to become rich and powerful (H.-J. Chang, 2002, p. 6).

Alexander Hamilton, the “British- American Dynamic” and the birth of the American industry: “Do as the Brits did, not as they say”

After the American colonies gained their independence from the British Empire in 1776, they also gained autonomy in what concerned to economic policymaking, which meant that American statesmen had the invaluable opportunity to redesign and reimplement the economic strategies and policies that America should follow in its quest for development. Nonetheless, there was no clear consensus at the beginning about what path should the newly independent American economy take, especially among the Founding Fathers. Despite this situation, it was recognized by many that at least some level of protection was needed not only as a way to incentivize local agriculture and backward industries but also as a way to raise Government revenues, something that the new Government was eager to acquire. Hence, on the 13th anniversary of the American independence (July 4, 1789), the U.S government passed its first significant policy in what refers to protectionism, the Tariff Act, which was sponsored by James Madison and supported by George Washington, establishing nationwide tariffs around 5% to a long list of goods such as cheese, candles, coal and coffee (Kucik, 2019).

However, America’s first Secretary of the Treasury and theorist of industrial protectionism, Alexander Hamilton (1755/57-1804), who was also a lawyer and economist and is considered as one of the founding fathers of the country, firmly believed that America needed a stronger protectionist regime and that the key to economic development lied on the industrialization of America. Thus, in 1791, Hamilton presented to the U.S Congress his famous work titled “The Report of the Secretary of the Treasury on the subject of Manufactures”, where he expressed his view about the need to develop an ambitious plan to redesign the American economy towards industrialization through a series of measures such as protective tariffs and

import bans, subsidies, export ban on key raw materials, import liberalization of and tariff rebated on industrial inputs, prizes and patents for inventions, regulation of product standards, and development of financial and transportation infrastructures (H.-J. Chang, 2009, p. 50).

These measures, which would result quite familiar to Prime Ministers Walpole and Pitt, were not unknown to American policymakers and businesses as they suffered their imposition for decades. Hamilton was a witness of how America was trapped in the specialization and export of raw materials such as tobacco, grains, furs, wood and cotton, an economic activity tied to the law of diminishing returns (a concept that will be analyzed more in depth in chapter 3), thanks to British mercantilist policies (Cohen & De Long, 2016, p. 7). This worried Hamilton, as he feared that this economic and trade dynamic with the British would remain entrenched, condemning the U.S to stay as a mere producer of agricultural products and dependent on the British and other more industrialized countries for the acquisition of high value-added manufactured goods and services such as machinery, shipping and banking. (Fletcher, 2011a, p. 123). Therefore, Hamilton's core thesis was that the U.S government should adopt an active role to deliberately change the structure of America's comparative advantage from agriculture to industry. He argued that, considering that the U.S was still a backward country, it was imperative to protect and nurture the nascent local industries from foreign competition (especially from the powerful British industries) until they become mature and competitive enough, otherwise their successful development would be in jeopardy (H.-J. Chang, 2002, p. 25).

After his report, Hamilton would push hard both intellectually and politically in favor of the promotion of industry, commerce and banking, as he also considered high spending on infrastructure alongside the development of the banking sector to be essential for sound economic development, especially the formation of a central bank (Cohen & De Long, 2016, p.

7). Despite the fact that the average tariff on foreign manufactured goods was increased from 5% to 12.5% shortly after Hamilton's report, he still considered this increment to be too low to effectively protect nascent American industries (H.-J. Chang, 2009, p. 50).

Hamilton's vision was not free from both external, but most importantly, internal resistance and reluctance since the British mercantilist system created significant agrarian interests within the American society and economy, especially in the southern states, whose representatives composed a large part of the Congress (Fletcher, 2011a, p. 133). Southern states opposed protectionist measures and supported free trade because they were not only reliant on British manufactures (much cheaper to get under free trade) for their agricultural industry but also because many of the trade restrictions that Hamilton proposed were not in their interest as they were intended to discourage the specialization and exportation of raw materials, looking to end with the dominance of the agrarian economy (H.-J. Chang, 2002, p. 7).

This would also mean that American agricultural products would become more expensive to produce due to all the additional duties and their price would further increase if foreign nations also imposed counter-tariffs for American products, which is why Hamilton's full set of policy recommendations were not adopted right away by Congress, despite the massive support from Northern states (Cohen & De Long, 2016, p. 133). This was actually the beginning of a trade/economic dichotomy that would last almost a century after the independence, only to be settled in the American civil war. Until that critical event, the American intellectual and policymaking spheres were torn between 2 traditions.

One side was the represented by the proponents of a greater government role in the economy, advocating for activist federal-level policies and projects to help protect and boost manufacturers and a strong federal financial system. The main exponents of this view after

independence were Alexander Hamilton and the also founding father and second president of the U.S, John Adams (1735-1826) (Cohen & De Long, 2016, p. 28). The other band, by contrast, was strongly against high levels of government intervention in the economy, supported the already well-established agrarian system and advocated in favor of trade liberalization. Low taxes and minimal federal interference were fundamental principles for the followers of this trend (Merry, 2016). The main representative of this view was America's founding father and third President, Thomas Jefferson (1743-1826), whose maxim was that the government that govern least, governs best (Reinert, 2008, p. 23), and his future follower, the seventh President of the U.S, Andrew Jackson (1767-1845).

The pro-agrarian and pro-free trade "Jeffersonians" were not alone in their quest for trade liberalization and anti-protectionist policies. The British, the former colonial masters, strongly supported Thomas Jefferson's vision for America to remain as an agrarian nation with an open trade regime, as it was on the interest of British industries to keep having access to cheap raw materials from the U.S and keep having free access to the American market, which was the colonial dynamic they knew would prevent the American from industrializing (avoiding a potential competitor for British industries) and keep them dependent on British manufactures (H.-J. Chang, 2002, p. 6).

The British who openly supported the "Jeffersonians" not only after the independence but also for most of the 19th century, used many resources in order to influence American policymaking as much as they could in favor of the free trade/agrarian thesis. One of the main tactics they used was the intellectual influence, as the theories of Adam Smith and David Ricardo were preached by the British in America, trying to convince the politicians to follow them (Reinert, 2008, p. 7). For instance, Adam Smith himself warned the newly independent

American nation not to pursue the strategy of infant industry promotion nor to attempt stopping the importation of European manufactures, as it would obstruct progress towards wealth and development (H.-J. Chang, 2002, p. 5).

On the other hand, according to Ricardo's theory of comparative advantage, the U.S should not abandon its role as an exporter of agricultural goods and should keep specializing on raw materials, considering the great advantage the country had in terms of arable land and agricultural potential. Furthermore, by the mid-19 century, another British economist would appear in order to keep trying to influence America's policy in favor of free trade. The British statesman, economist and member of the Anti-Corn law league, Richard Cobden (1804-1865) believed that through universal free trade, nations would eventually become so interconnected and interdependent that prosperity would be a mutual outcome and war would become obsolete.

These ideas would get much attention among American liberal reformers (De Vogli, 2013, p. 99). Nonetheless, the government's role in economic development kept growing throughout the 19th century, as a considerable group of pro-industrialization and nationalist policymakers ("Hamiltonians") were skeptical of Smith's, Ricardo's and Cobden's theories⁶ since they saw Cobdenism and Smith's Invisible Hand as a British conspiracy to lower American high tariffs and subsequently undermine American industrialization efforts (Palen, 2016, p. XV).

Hamiltonians were strongly supported by List, who was heavily influenced by Hamilton's vision⁷ and became an avid defender of the infant-industry-protection strategy and

⁶ Richard Cobden would play a key role in the signing of the Cobden-Chevalier Treaty of 1860, which is considered as the first modern Free Trade Agreement between 2 countries and represented a triumph for the British liberal economic policies. The treaty marked the beginning of a relatively free trade period of 3 decades between European nations (Tena-Junguito et al., 2012, pp. 2-3).

⁷ Friedrich List lived in exile in the United States between 1825 and 1832, where he would become an open follower of Hamilton's views and critic of the British free trade policies (Wendler, 2016, p. 2)

critic of premature trade liberalization during the first half of the 19th century. List argued that the Americans made the right choice by firmly rejecting Smith's theories and jealously protect their infant industries with great success, especially after 1816 (H.-J. Chang, 2002, p. 5).

Furthermore, List considered that a premature and abrupt turn to free trade would represent "a universal subjection of the less advanced nations to the supremacy of the predominant manufacturing, commercial, and naval power of Britain" (Palen, 2016, p. 4). For List, it was essential to catch up first before liberalizing trade and he was convinced that this could only be achieved through the adherence to economic nationalistic policies of industry promotion and protection, as well as heavy investments on innovation and infrastructure (Palen, 2016, p. 4).

Alexander Hamilton was the main architect of perhaps the most significant attempt to deliberately reconfigure the American economy, betting and pushing in favor of an active government role for the support of manufacturing, technology, commerce, corporations, infrastructure, banking and constant innovation in all these fields. The target was clear, the U.S should become a top manufacturer and researcher of high-tech activities that would entail increasing returns and higher incomes instead of remaining as Europe's provider of agricultural, mining and logging products. This set of policies would eventually be known as the "American System" (Cohen & De Long, 2016, p. 35).

Without Hamilton's economic and political interventions, the U.S would probably have not become the world's second and then first industrial power in just a bit more than a century after its independence. The U.S explicitly followed the same strategy that led Britain to become the world's industrial, economic and military hegemon of the world during the colonial times,

despite of the British efforts to convince them otherwise. By the 1820s, the American maxim in economic policy was said to be “Don’t do as the British tell you to do, do as the British did” (Reinert, 2008, p. 23). In this way, and following British practice rather than their theories, the U.S became the most ardent practitioner of protectionism for more than a century (H.-J. Chang, 2002, p. 5).

Hamilton’s agenda would be a fundamental influence (much more than that of Smith, Ricardo and Cobden), channeled by Friedrich List and other economists during the 19th and 20th century, for the successful industrial and economic development of late-developers such as Germany, Sweden, Australia, New Zealand, South Korea, Singapore, Finland, Taiwan, Russia, Italy and China (Cohen & De Long, 2016, p. 34). Ironically, if Hamilton were the minister of trade or economic affairs of a developing country today, it is most likely that he would be considered a “pariah” within the economic development field and is most likely that he would have been refused to get either loans or support from Washington Institutions such as the World Bank or the IMF. Cambridge’s Economist Chang (2002, p.4) adds that, if this were the case today, the same institutions would probably be lobbying for his removal from office.

CHAPTER 2: PROTECTIONISM, INFANT INDUSTRIES AND GRADUAL TRADE LIBERALIZATION: THE AMERICAN NATIONAL CREED AND THE INCONSISTENCIES OF LAISSEZ-FAIRE ECONOMICS

U.S Trade Policies in the 19th century: “The mother country and bastion of modern protectionism”

The protectionist trends would not be strengthened until the war of 1812⁸, which revived the widespread anti-British sentiment, disrupted regular trade activities and made Congress immediately double the average tariff rates to 25% (which was around 12.5% before the war), especially focusing on the protection of cotton, woolen and iron goods (Fletcher, 2011a, p. 133). American economists and scholars, Stephen Cohen and James Bradford DeLong (2016, p. 7), indicate that this represented a formidable protectionist exercise considering the huge costs of early-19th century shipping.

Moreover, trade disruption and increasing protectionism during and after the war fostered the emergence of new industries in the country since most of the manufactures imports from Europe and Britain was interrupted, which increased the number of businesses and industrialists who of course demanded protection from foreign competition to continue and even to be increased after the end of the war. Hence, in 1816, tariffs were raised again to an average of 35% and by 1820 they were already raised up to 40% (H.-J. Chang, 2009, p. 53), an attitude that represented the complete adherence to Hamilton’s recommendations.

⁸ The War of 1812, (June 18, 1812–February 17, 1815), was a conflict fought between the United States and Great Britain over British violations of U.S. maritime rights (Heidler & Heidler, 2020).

As introduced in the previous chapter, Hamilton's vision for the "American System" was not only about raising tariffs, it was a set of comprehensive economic policies that included also included the following; 1) Prohibition of rival articles (import bans); export bans on industrial inputs (like King Henry VII's ban on exporting raw wool); export subsidies; subsidies for key innovations (research and development tax credits); import liberalization for industrial inputs (other countries should be the raw materials exporters); drawbacks on imports used for manufactures, encouragement of new inventions and discoveries (prizes for inventions and patents), regulation of product standards (as the USDA and FDA do today); a sophisticated financial system; and good infrastructure to facilitate the transportation of commodities (Fletcher, 2011a, p. 132).

Government land redistributions were also considerable and even though there was a minimal State regulation of monopolies and industrial practices, economic nationalist policies prevailed upon the American political economy (Palen, 2016, p. XXIV). Industrialization and its protection were also seen as a fundamental means to expand employment (with higher wages) for an increasing population, to correct unbalances in the balance of payments, to increase the circulation of money, and also as a major sources of deferral government revenues as factory owners and craftsmen could be taxed much higher than regular farmers (Reinert, 2008, p. 129). In this way, tariffs were subsequently raised even more in 1824 and 1828, when the so-called Tariff of Abominations (1828) was enacted and strengthened the divisions between industrialists and agrarians in the country as New England and Northern manufacturing states pushed for high tariffs for industrial imports but also for raw materials, and low value-added goods that southern states produced, which is why the latter turned against these policies due to their export activities and their interest in importing superior quality British manufactures (H.-J. Chang, 2002, p. 24).

Hamilton's vision became the foundation for the next generation of politicians, especially in the case of the famous member of the Senate, House of Representatives and Secretary of State, Henry Clay (1777-1852) and his Whig Party⁹, who was an ardent follower of Hamilton's philosophy and actually was the one that coined the term "American System" in explicit opposition to what he referred as the "British system of free trade" (Merry, 2016). The next generation of Hamiltonian and Listian followers and policymakers would be composed by Henry C. Carey (1793-1879), James Blaine (1830-1893) and U.S 25th President William McKinley (1843-1901).

After List's death in 1846, Henry Carey, who would become President Lincoln's chief economic advisor and who is often considered as the founder of the American School of Economics (Encyclopedia Britannica, 2019), would take up the lead in favor of the American System and become Pennsylvania's "Ajax of protectionism", convinced that industry and protectionism would not only increase employment, diversify productivity, invigorate the southern economy and even someday eliminate slavery. Moreover, Carey not only argued that free trade and southern slavery were two sides of the same coin and that slavery was inherently interconnected with premature trade liberalization, but also view Cobdenism free-trade influence as part of an imperialist strategy from the British to keep the U.S as a raw materials exporter (Palen, 2016, p. 10).

⁹ The Whig Party was a major political party active in the period of 1834-1854 that espoused a program of national development, bringing together a loose coalition of groups united in their opposition to Andrew Jackson (a follower of the Jeffersonian thesis in favor of free trade and agriculture)(Encyclopedia Britannica, n.d.-f).

Protectionist tradition would remain strong with the rise of the Republican party in 1854, (Carey, Blaine, McKinley and Lincoln were all members of the Republic Party) inheriting from its Whig party antecedent an agenda of aggressive government support for economic development, favoring deflation, subsidies for railroads, free land for homesteaders in the westward expansion, and high tariffs. Many Republicans accused free traders of viewing economics solely from the consumer's point of view and of favoring short-term consumption over long-term production and competitiveness (Fletcher, 2011, p. 130). In this way, the U.S would become the most ardent user of infant industry protection at the time. As a matter of fact, the renowned economic historian, Paul Bairoch (1930-1999) referred to the U.S as "the mother country and bastion of modern protectionism" (H.-J. Chang, 2002, p. 24).

Trade Policy Discrepancies and the American Civil War: "No Slavery really meant Protection and Industry"

According to Economist Erik Reinert (2008, p. 83), the American Civil War (1861-1865) was a prototype conflict between free traders and raw materials exporters (the south) on the one hand and the industrializing class (the north) on the other. Economist Chang (H.-J. Chang, 2009, p. 53) adds that slavery was not as a divisive issue before the war as is commonly believed today, since the mainstream Northern view was not abolitionist besides some strong influence in New England states, especially in Massachusetts. He adds that abolition acquired a more strategic nature to win the war than an actual moral conviction at first (Lincoln's

convictions deepened during the course of the war), while the disagreements over trade policy was at least as important, and possibly more, than slavery itself ¹⁰.

Since the southern states had little manufacturing industries to protect, they barely got any benefit from high tariffs, their economy was highly dependent on the British Empire that kept buying their cotton (which was America's main export before 1870), and also were affected by an increasing tax burden, which is why it was not a surprise that they were in favor of trade liberalization, something that the short-lived Confederate Constitution eventually mandated (Fletcher, 2011a, p. 134).

A key turning point and cause of the war was the Morrill Tariff Act of 1861, signed by Democratic President James Buchanan, which raised general tariff rate from 17% to 26% and included specific protective tariffs of 50% or more on industrial products such as machinery, pig iron and cutlery, an initiative that was considered incendiary and outrageous for the southern states (Palen, 2016, p. 38). The next key event would be the victory of Abraham Lincoln in the 1860 Presidential election, an achievement that would have been very hard if he did not have the support from the leading protectionist states of Pennsylvania and New Jersey, states that changed their allegiance to Lincoln's Republican Party due to the latter's promise to maintain active protectionist policies and high tariffs (Fletcher, 2011a, p. 134), something that Lincoln (as a leading member of the hardline protectionist Whig Party and an enthusiastic follower of Henry Clay) eventually did once elected and raised industrial tariffs to their highest level in US history (H.J. Chang, 2002, p. 27).

¹⁰ Lincoln himself wrote in 1862: "If I could save the Union without freeing any slave, I would do it, and if I could save it by freeing all the slaves I would do it, and if I could do it by freeing some and leaving others alone, I would also do that" (Lincoln, 1862)

In what refers to the slavery question, Confederate diplomat Edwin de Leon (1818-1891) wrote a letter to the editors of the London Times saying that slavery was “a mere pretext” for secession, while The influential British newspaper *The Preston Guardian*¹¹ stated that when the American northerners cried “no slavery, ”they really meant protection” (Palen, 2016, p. 44).

Naturally, the British had several interests tied to the southern economy, so, despite a formal maintenance of neutrality, they tried to support the south and antagonize the north through different means. For instance, in 1862 the Union was outraged when they found out that some Confederate war vessels were built in British ports and also denounced the “insidious” influence of the transatlantic free-trade propaganda among the press, intellectuals and politicians (Palen, 2016, p. 57). About this matter, Henry Carey would express his anger over the Cobdenism’s attempts to influence American policy in favor of free trade and the perceived British support to the Confederacy by claiming that: “[Free trade] is largely a cry raised by British capitalists and manufacturers, to unsettle our policy, and that of the world, that they may reap the benefit, by making England the workshop for the world”.

As a result, the victory of the Union and the increased American Anglophobia made Cobdenism’s efforts to spread free trade in America extremely difficult (Palen, 2016, p. 59). In 1868, congregationalist minister and renowned abolitionist writer, Joshua Leavitt (1794-1873) expressed that “No man of prominence in America can support even a partial relaxation of the rigors of Protection without bringing upon himself the stigma of being a partisan, and probably a

¹¹ The Preston Guardian, now known as The Farmers Guardian, is a British newspaper founded in 1844 by Joseph Livesey, the "father" of the total abstinence movement in Britain to support the campaign for the repeal of the Corn Laws (Weston, 2007).

pensioner, of British Free Trade” (Palen, 2016, p. 60). After the war, tariffs would stay at wartime levels (between 40-50%) until the World War I and were the highest of any country in the world (H.-J. Chang, 2009, p. 50). Tariffs would actually remain high during the so-called long Republican hegemony from 1865 to 1932 (George, 2010, p. 130). About the dichotomy and conflict between the industrialist and agrarian factions in the American Civil War, economist Erik Reinert (2008, p. 83) states that “today’s poor countries are the nation where the south has won the political conflicts and civil wars. Opening up too early for free trade makes the South the political winners.”

American Trade Policy during the late-19th century and 20th century

As a result of the Union’s victory in the Civil War and the beginning of the long Republican hegemony, economic nationalism kept dominating the economic policies in the U.S would make turn the country into the most protectionist nation not only during the rest of the 19th century but well into the 20th century (even until World War II), with the exception of the Soviet Union (H.-J. Chang, 2002, p. 28).

This strategy and policy toolbox provided by Hamilton created the ideal conditions for rapid industrialization, social prosperity, the development of the banking system and the establishment of the government’s bond market (Federal debt), something that promoted the interest in the survival and success of the government among the rich families and industrialists (as they were the ones that funded many projects and who the State owned them money), which

is why Hamilton¹² believed that: “a national debt, if it is not excessive, will be to us a national blessing” (Cohen & De Long, 2016, p. 40).

As a result, American policymakers subverted the ideology of Laissez-Faire and Cobdenism due to the country’s need to catch-up with the more developed and industrialized nations of Europe, especially Britain. It is not a novelty to state that their view was successful since by the end of the 1880s and 1890s, the incipient and infant industries from the early and mid-19th century had grown to be among the largest firms in the world and the U.S was able to surpass the British as the world’s top and leading industrial economy (Skidelsky, 2019, p. 90). The U.S successfully transformed from a large net importer to a net exporter of manufactured goods and services, to the point that Europeans analysts began to talk about the “American commercial invasion” as industrial exports from the U.S would explode from 20% in 1890, to 35% in 1900 and 50% in 1913 (Palen, 2016, p. 189).

Despite American industrial leadership by the turn of the century, protectionism would be relaxed for certain periods, but it would not be significantly reduced until after World War II. In 1913, thanks to President Woodrow Wilson’s (1856-1924) efforts, the Underwood Tariff Bill was passed, which reduced average tariff on manufactured goods from 44% to 25%. It is often said that Wilson was the first modern president to believe in free trade as it was one of his famous 14 Points for Peace after WWI (Fletcher, 2011a, p. 139). The Underwood Bill succeeded in reducing tariffs in 1913 but its significance would be short-lived as tariffs were raised shortly because of World War I and by 1922, they were raised to 30%. By 1925, they climbed back to

¹² The New York Historical Society called Hamilton: “The Man who made Modern America” (American Library Association, n.d.)

37%, and following the Great Depression, they were raised even higher (H.-J. Chang, 2002, p. 28).

Even though the U.S was the most protectionist country in the world throughout the 19th century up to the 1920s, it was also the fastest growing economy in the world in terms of expansion of the GDP and per capita income (Christensen et al., 2019, p. 43). Challenging the main economic theories and beliefs of today, the two best 20-year period of GDP per capita growth performances between 1830 and 1910 were 1870-1890 (2.1%) and 1890-1910 (2%), both periods of very high protectionism (H.-J. Chang, 2002, p. 40).

Protectionism is often blamed as the cause of not only the Great Depression but, as a subsequent result, of World War II. In 1930, the Smooth-Hawley Tariff ¹³ was passed, which further raised average tariffs rates in comparison to the levels of the 1920s. Nonetheless, the Great Depression was already taking place one year in 1929 before the Tariff was passed by Congress (Heing, 2017, p. 55)¹⁴. Even though the enactment of this law did provoked an international tariff war between the world's strongest economies, it did not represented a radical departure from the American traditional trade policy behavior as it only marginally increased the average tariff rate on manufactures to 48% in 1931, while tariffs were already around 40% by the end of the 1920s (H.-J. Chang, 2002, p. 29). Evidence shows that American tariffs were much more significantly raised in 1861, 1864, 1890 and 1922 without producing any kind of global

¹³ Formally United States Tariff Act of 1930, the Hawley-Smoot Tariff Act, raised import duties to protect American businesses and farmers (Encyclopedia Britannica, n.d.-e)

¹⁴ Nobel Prize Winning Economist Milton Friedman proved that the Depression's cause was monetary as the Federal Reserve allowed the money supply to balloon during the late 1920s, piling up in the stock market as a bubble, which eventually collapsed, depriving the economy of the so-needed liquidity. Thus, trade policy was not involved (Fletcher, 2011a, p. 139).

depression, vicious spiral of tariff retaliations by foreign countries or financial havoc (Fletcher, 2011a, p. 139).

It was only after WWII, when the U.S was in an unprecedented situation in terms of economic, industrial, diplomatic and military supremacy that it would begin to liberalize its trade, reduce tariffs and start preaching in favor of trade liberalization throughout the world. However, this did not happen overnight right after WWII. In 1963, industrial tariffs in the U.S were still 13% on average while in 1973, they were only reduced to 12%. In contrast, European Economic community countries had average tariffs for industrial goods of 8% and 7% for the same periods (H.-J. Chang, 2009, p. 57). However, it is also important to highlight the fact that, even though tariffs were significantly reduced, other type of tools were fostered to keep controlling and restricting trade, these are the so-called non-tariff barriers¹⁵.

Senior economist Ian Fletcher (2011a, p. 132) stated that the idea that America's economic tradition has been economic liberty, laissez faire, and wide-open cowboy capitalism (which would naturally include free trade), resonates well with the national mythology as in reality is that all four presidents on Mount Rushmore were protectionists. (Even Jefferson came around after the War of 1812).

¹⁵ Sanitary and phytosanitary measures; technical barriers to trade; inspections; licenses, quotas and quantity control; price-control measures; anti-dumping; rules of origin, intellectual property, safeguards, among others (Institute for Government, n.d.).

The Myth of Free Trade and Free Markets: Inconsistencies with Smith's, Ricardo's and Cobden's theories

As stated before, classical and neoclassical economics are not only based on Smith's invisible hand and the concept of laissez-faire economics, but also on Ricardo's theory of comparative advantage and Cobden's philosophy. As a short recapitulation, the classical and neoclassical economic doctrines (developed in the 19th century) are aligned with the laissez-faire philosophy in the claim that states that if the market system (transactions between private parties) are left alone and undisturbed from any form of government intervention, full employment and optimal distribution of scarce resources will be ensured, boosting the economic performance and efficiency of the overall economy. Moreover, and under the assumption of perfect and pure competition, income distribution, allocation of production and the optimization of social organization will also be ensured due to the automatic regulation of demand and supply forces, adjustments in market prices, wages, and interest rates (Wolff et al., 2012, p. 37).

In summary, classical economists believed in the ability of the economy to self-adjust in a system without any kind of government intervention. The next generation of neoclassical economists also believed that the free movement of goods (free trade), services, and capital unimpeded by government regulation will lead to rapid economic growth because, according to Smith's theories, actors within the economy constantly pursue their self-interest, know their situation and make rational decisions, which is why in the long run, the market itself punishes those making irrational decisions (H.-J. Chang, 2012, p. 23).

This view also extends to the realm of international trade, where if trade is unencumbered by government restrictions or distortions (free trade: no tariffs, quotas or other restrictions), trade levels will increase and nations will be prevented from being trapped in the

production of less-valuable outputs (higher opportunity costs), which will contribute to global economic growth and enhance welfare (Fletcher, 2011a, p. 100). Thus, assuming perfect competition and information (although this type of market has never existed), free trade will increase global output and efficiency due to the gains from the international division of labor and specialization according to the Ricardo's theory of comparative advantage, which will ultimately maximize the allocation of factors of production across sectors of the economy and improve general welfare within participating nations (Palen, 2016, p. 54).

Under free trade, countries can systematically shut down all of their least valuable tasks or industries and reallocate their resources to the most valuable ones, which is why if every nation does this, it benefits the entire world since the global economy and every participant nation will become as productive as they can possibly be (Fletcher, 2011a, p. 98). On their part, governments should only focus on enforcing contracts, protect private property and provide security to the country.

A key question that arises at this point is: how come prominent economists, statesmen and analysts such as Hamilton, List, Lincoln, Clay and Carey were against free trade and laissez-faire economics if the promises behind these theories are so appealing? It turns out that there are several inconsistencies and gaps within the theories of Smith and Ricardo, on which classical, neoclassical (and also neoliberal) economics are based.

First of all, no matter how "free" markets appear to be, all markets have explicit or implicit rules and regulations that limit the scope of action of market players, either public or private. The government is always present, so the free market is an illusion. If a market seems free, it is only because we accept its basic restrictions so unconditionally that we no longer see them. For example: regulations for weapons, alcohol, drug drugs, human trafficking, building

permits, processes to open businesses, child labor¹⁶, minimum wages, environmental regulations, etc. All this is determined from the beginning by the government. Actually, agents and actors within an economy do not necessarily always know what they do and what they do may not always be beneficial for society and the economy in general, since we have limited rationality and information.

Moreover, neoclassical economics assumes that there is not only perfect competition within the market with a wide range of products from different suppliers competing on price and quality; it also assumes that there are always alternatives readily available in the market; it assume markets are fixed when in fact they are a complicated process that is still on-going; it assumes perfect information and that consumers and producers have access to all information about the item and of any alternative choices as well as the infinite time to evaluate it all, allowing them to predict the future consequences of their choices (Valdes, 2017, p. 48). In that sense, government regulation often works, especially in complex areas such as the current financial market, and not because the government has more knowledge but because it limits the possibilities and therefore the complexity of the problems, thus reducing the risk of externalities¹⁷ or wrong outcomes¹⁸ (H.-J. Chang, 2012, p. 195).

¹⁶ At the end of the 19th century when child labor began to be seriously regulated in Europe and the USA, many respectable statemen and analysts saw the legislation as something contrary to the principles of the free market as it undermined the sanctity of freedom of contract (H.-J. Chang, 2012, p. 190).

¹⁷ An externality is an economic term referring to a cost or benefit incurred or received by a third party, a side effect or consequence of an industrial or commercial activity that affects other parties without this being reflected in the cost of the goods or services involved. However, the third party has no control over the creation of that cost or benefit. An externality can be both positive or negative and can stem from either the production or consumption of a good or service. The costs and benefits can be both private or social (Kenton, 2019a).

¹⁸ The Great Depression of 1929 and the 2008 financial crisis shows how irrational and irresponsible unchecked and deregulated markets can become.

Evidence is consistent enough to assure that well-functioning, sustainable markets strongly depend on a wide range of nonmarket institutions for critical functions of regulation, redistribution, monetary and fiscal stability because they are not self-creating, self-regulating or self-stabilizing, and these institutional functions can only be effectively provided by the State, a role that not only did not constrained or hinder the development of domestic and global markets, but actually facilitated and boost them in many ways (Rodrik, 2019, p. 27).

Even a market free from any regulating rules will always need constitutive rules to start “self-organizing”, which is why the invisible hand will always be dependent on the specific formulation of the constitutive rules (Björkman, 2016, p. 45). This reinforces the notion that the mechanisms aligning individual and collective interests to produce socially beneficial outcomes are more likely to be the visible influences of social forces, the government, and other institutions—rather than the invisible hand of the market and would not work without social pressures that alter individuals’ behaviors and judgments.

Even the “free market” is always man-made institution that cannot survive without the legal and institutional frameworks provided by the modern state and that are the result of an arduous and deliberate process (Valdes, 2017, p. 6). Of course, this does not mean that the logic behind the invisible hand doesn’t exist since appropriate levels of decentralized decision making in the marketplace is good thing and freedom to operate in markets is necessary for enhancing personal wealth (effective liberty is not automatic). Nonetheless, the argument is that the logic of the invisible hand is made possible because of the state as markets do not magically check themselves. The laws of justice (respect for rule, private property rights and civil liberties), which Smith argues were critical for efficient markets to function, are not automatic and exist because the state, but it is also ignored how in the case of countries such as the U.S, it was the

government's role that cleared the path so that, when individuals and entrepreneurs worked hard, they were able to prosper due to the fact that they lived and operated in a proper environment with the necessary conditions for successful capitalism and economic development (Martinez, 2009, p. 54).

In what refers specifically to free trade, the assumptions previously mentioned are also present at the moment of analyzing the effects of free trade under the neoclassical approach, assumptions that are quite questionable to be valid in any country, let alone in poor or developing ones. This theory also pays little attention to the risks entailed within the international trade system, but it is proven that trade regimes can significantly affect countries' exposure to risk in different ways (Stiglitz & Charlton, 2005, p. 70). In that sense, trade is not only an economic process but also a political one and one of the most serious problems is that trade liberalization theory focuses specifically in efficiency in the short-term and not about increasing available resources through economic development in the long term, which is what eventually leads to sustainable economic development. Thus, free trade doesn't necessarily allocate resources in a way that is good for economic development in the long run (Rodrik, 2019, p. 25).

Of course, this does not mean that trade is not important or significant for development; it can be hugely beneficial if trade policy is correctly designed, organized and implemented according to the needs, economic strategies, goals and peculiarities of a given nation (like in the case of Britain, the U.S and the East Asian Tigers) but trade can also be hugely detrimental if the inconsistencies analyzed so far are ignored. Another issues with the theory of free trade is that most tools used to analyze the so-called general equilibrium effects of trade liberalization are static models, like those considering full employment.

However, in reality, free trade might just move workers from low-productivity protected sectors into unemployment, which lowers the national income and increases poverty (Stiglitz & Charlton, 2005, p. 69); while the successful gains or hindering losses come from the dynamic effects of trade and economy themselves, not from static assumptions. Hence, What history has shown is that, whether trade is beneficial or adverse, depends strongly on whether a country uses trade as part of a carefully designed development strategy or just let it happen (George, 2010, p. 46). After all, evidence shows how the world's most successful nations have all used a wide variety of trade-distorting measures according to their needs and contexts in order to promote and protect their industries and economies from the downsides of unrestricted trade liberalization.

Regarding David Ricardo's theory of comparative advantage¹⁹, which is often portrayed as a strong argument in favor of free trade, specialization between countries and is still perceived as the base for trade theory, also states that trade between two countries makes sense even when one country can produce everything more cheaply than another (a.k.a absolute advantage) as it can still gain by specializing in products and services in which it has the greatest cost advantage over its trading partner, while the other country specializes in product in which it has the less cost disadvantage (H.-J. Chang, 2009, p. 47). Thus, the theory sees international trade as a vast interlocking system of tradeoffs, in which nations use the ability to import and export to shed

¹⁹ The law of comparative advantage is popularly attributed to English political economist David Ricardo and his book "On the Principles of Political Economy and Taxation" in 1817, and refers to an economic term that refers to an economy's ability to produce goods and services at a lower opportunity cost than that of trade partners. A comparative advantage gives a company the ability to sell goods and services at a lower price than its competitors and realize stronger sales margins (Encyclopedia Britannica, n.d.-a).

opportunity costs and reshuffle their factors of production to their most valuable uses, all that is supposed to happen automatically.

Moreover, the theory also simplifies assumptions such as a single factor of production, full employment, low risks, a given stock of resources and a balanced exchange of goods. However, it is clear that trading relations are much more complex and need further analysis of more-realistic parameters (Fletcher, 2011a, p. 183). About the subject, Joseph Stiglitz (2005, p. 116) argues that trade in commodities and natural resources is a classic example of Ricardo's theory of comparative advantage since Ricardo pointed out that when trade is unrestricted the consumers of the imported goods benefit from the lower prices, and entrepreneurs in all countries obtain a higher profit than if they invested in something else. Nonetheless, Ricardo did not claim that anyone else would benefit from this dynamic²⁰, neither he claim that the theory would necessarily lead to the best activities or outcomes for the long-term horizon.

Ian Fletcher (Fletcher, 2011a, p. 103) states that Ricardo's theory also implies that whenever nations do have different relative productivities, mutual gains from trade will occur, despite the fact that one country might be exporting ships in exchange for wool. This is why free traders believe that their theory proves free trade is always good for every nation, no matter how poor or how rich, stating that rich nations would not be bled dry by the cheap labor of poor nations while poor nations would not be crushed by the industrial sophistication of the former, which is something that simply cannot happen, because the fundamental logic of comparative

²⁰ When the theory of comparative advantage promises gains from free trade, these gains are only promised to the economy as a whole, not to any particular individuals or groups, so it is entirely possible that even if the economy as a whole gets bigger thanks to freer trade, many people in it may lose income such as workers that cannot move between industries due to mobility or skills restrictions and are led into unemployment (Fletcher, 2011a, p. 107).

advantage guarantees that only mutually beneficial exchanges will ever take place. Furthermore, Michael Porter (1947) (2014, p. 12) argues that comparative advantage based on factors of production is not sufficient to explain patterns of trade, that evidence about this is not difficult to find and that there has been a growing awareness that the assumptions underlying comparative advantage theories of trade are unrealistic in many industries, especially when we consider that other factors such as skilled labor and capital, do not move freely among nations.

On the other hand, economist Chang (H.-J. Chang, 2009, p. 47) explains that Ricardo's theory is right in that accepting their current levels of technology as given, it is better for countries to specialize in things that they are relatively better at. However, he claims that the theory fails when a country wants to acquire more advanced technology, switch its economic structure towards a higher value-added based one, that is, when it wants to develop its economy. As in the case of the U.S in the 9th century, it takes time and experience to absorb new technologies and capabilities, so technologically backward producers need a period of protection from international competition during this period of learning as Hamilton and List agreed. Of course, such protection is costly because the country is giving up the chance to import better and cheaper products, but it is a price that has to be paid if a country wants to develop advanced industries in the long term.

Fletcher (2011a, p. 184) adds that if Ricardo's theory was true, it would imply that economies should concentrate on fewer industries as they become richer but the reverse is observed throughout history since economies starting out from a primitive state tend to expand the range of products they produce as they grow and develop. In fact, narrow specialization is actually a characteristic of impoverished one-crop nations, colonies managed for the benefit of distant rulers (British Colonies specializing on a few natural resources), and accidental raw

materials-based economies like the Gulf oil producers. Joseph Stiglitz (Stiglitz & Charlton, 2005, p. 116) adds that Ricardo was not a stranger to this dynamic, since he describes in his book how, unless a country's economy is continually diversifying and creating new demands for new skills, free market competition could depress wages to subsistence levels, which is something that the leading countries have been constantly changing and continuously creating demands for new skills. In that sense, Ricardo's theory is fundamental for those countries who accept the status quo (staying as raw materials exporters) but not for those who want to change it (like the U.S throughout the 19th century, South Korea in the 20th century and China today).

The Consensus about Free Trade: A matter of Timing and Gradualism

List was an avid critic of Smith and Ricardo, and in general of the British efforts to preach free trade to other less developed and backward nations. He once said:

“Any nation which by means of protective duties and restrictions on navigation has raised her manufacturing power and her navigation to such a degree of development that no other nation can sustain free competition with her, can do nothing wiser than to throw away these ladders of her greatness, to preach to other nations the benefits of free trade” (Stiglitz & Charlton, 2005, p. 8).

Nonetheless, it is important to clarify that List was not against free trade since he argued that free trade is beneficial among countries at similar levels of industrial development (which is why he strongly advocated a customs union among the German states Zollverein²¹) but not

²¹ Zollverein, (German for “Customs Union”) was established in 1834 under Prussian leadership. It created a free-trade area throughout much of Germany and is often seen as an important step in German reunification (Encyclopedia Britannica, n.d.-g).

between those at different levels of development, which is why he criticized Britain because he was aware that free trade agreements would only create an scenario of asymmetrical trade between the British and less developed nations in process of industrialization or with incipient industries (such as the U.S during the first half of the 19th century) (H.-J. Chang, 2002, p. 4).

For List and his followers, like Henry Carey, free trade was the ultimate ideal stage of economic development, as he acknowledged that, eventually, when the industries of a country are strong and mature enough to withstand foreign competition (when they stopped being infant and reached adulthood), access to foreign markets would not only would be something desirable but even necessary (Palen, 2016, p. 24). Thanks to List's influence, the prestigious German historical school of economists redefined the now neglected idea that the validity of economic doctrines depends on circumstances. That is, what might be good for a nation at one time might be quite unsuitable for it at another (Skidelsky, 2019, p. 88). As stated before, one of the main problems with the adoption of free trade is that it never shows whether the specialization on certain activities or comparative advantages are the best in the long run, even though they could be in the short term.

Harvard economist, Dani Rodrik (1957) (Rodrik, 2009, p. 30), adds that trade liberalization according to the neoclassical view would be good for economic development only if a large series of conditions are met within a given economy: 1) Liberalization must be complete; 2) There must be no microeconomic market imperfections; 3) The home economy must be small in world markets; 4) The economy must be in reasonably full employment; 5) The income redistributive effects of the liberalization should not be judged undesirable by society at large; 6) There must be no adverse effects on the fiscal balance; 7) The liberalization must be

politically sustainable and hence credible so that economic agents do not fear or anticipate a reversal.

In what refers to the gradual process of adopting free trade, List had 2 main principles: first, a nation must focus its efforts and resources to diversify its economic structure towards activities with increasing returns (that is away from natural resources and low value-added goods) since it is a fundamental precondition for wealth, sustained economic growth, democracy and political freedom. So, it does not matter if a country has a comparative advantage in natural resources, a country should try to move away from those activities (which is what the U.S eventually did in the 19th century). Second, after the nation has become industrialized, it can then start a gradual economic integration with other nations at the same level of development (Reinert, 2008, p. 268). At this level, although List was clearly against it, a country could also do as the British did and make backward nations adopt reciprocal free trade (which would actually be an asymmetric trade dynamic) that would ultimately benefit more the advanced nation. In this regard, Erik Reinert (2008, p. 89) explains that in the 18th century, when a country exported raw materials and imported industrial goods, this was considered as “bad” trade. Conversely, when the same country imported raw materials and exported industrial goods, this was considered “good” trade. However, when a country exported industrial goods in exchange for other industrial goods, this was considered good trade for both parties.

The first two are examples of an asymmetrical trade relation (where the poor country often loses or get the least benefit), while the third one is one of symmetrical trade, which is what ultimately benefits both participants. This is why, according to Reinert (2008, p. 119), the most eager advocates of industrialization and protectionism, like List, were also the most eager advocates of free trade after all countries had industrialized. Therefore, even though

protectionism can go wrong and sometimes lead to fails and inefficiencies, this is not enough to discredit the whole strategy like is often do now. The fact is that it will be very hard for industries in backward or developing countries to survive if they are exposed prematurely to strong and specialized international competition, since they need to learn new technologies, adapt and improve their processes and all their internal capabilities not only as a manufacturer and researchers but also as an organization per se (H.-J. Chang, 2009, p. 66). However, this does not mean they should be protected indeterminately or permanently.

Moreover, and according to economist Ian Fletcher (2011, p. 127), evidence shows that despite the British attempts to liberalize trade among its competitors, the rest of the economic powers of the 19th century would eventually follow the path the U.S took and reject the British recommendations. Germany was first after 1879, and then between 1880s and 1890s tariffs would subsequently go up in France, Italy, Sweden, Spain and Austria-Hungary. He adds that a thorough study made by the Irish economist and historian Kevin O'Rourke (1963), shows a clear correlation between protection and economic growth rates in Europe in the 1875 - 1914 period.

Following the recommendations from List, it was only after World War II that the U.S deliberately and actively switched towards free trade and deregulation of markets, when it had absolutely no competitor in the economic or industrial arena. Nonetheless, not even the U.S got to practice free trade to the same degree as the British did during their free trade period (1860-1932), as the country never had a zero-tariff regime like the British did and kept implementing other non-tariffs measures more actively such as voluntary export restraints, quotas on textiles and clothing, protection and subsidies for agriculture, and unilateral trade sanctions (H.-J. Chang, 2002, p. 29). This is because the question most countries face when it comes to free trade is not a zero-sum game between total autarky (no trade) or free trade, but rather a choice among a

spectrum of trade regimes with varying degrees of liberalization, especially considering that almost every country today imposes some trade restrictions (Stiglitz & Charlton, 2005, p. 12).

History shows that most of now-developed countries learned and followed their economic and trade policies based on the theories from Alexander Hamilton and Fredrich List rather than from those of Adam Smith and David Ricardo. In that sense, it can be said that the best performing economies and industrial leaders have been those that opened up their economies gradually and selectively (Skidelsky, 2019, p. 90). Thus, those countries that jealously protected their industries and adhere the least to free trade during the crucial moments of their developmental phases have become developed and successful. As Reinert (2008, p. 119) explains, asymmetric free trade will lead to the poor nation specializing in being poor, while the rich nation in being rich, which is why the poor nation must first rid itself of its international specialization in being poor. For 500 years, this has not happened anywhere without heavy market intervention.

CHAPTER 3: INDUSTRIALIZATION AND HIGH-VALUE ADDED GOODS AND SERVICES: THE “RIGHT” ECONOMIC ACTIVITIES

Commodities and Sustained Economic Growth: British vs Spanish Experience

The right economic activities that a country must pursue in order to achieved sustained economic growth and prosperity did not seem to be a secret even for economists and policymakers from centuries ago. For instance, the Italian philosopher and economist, Antonio Serra (1568-unknown), was one of the precursors in trying to explain the problems attached to the specialization on natural resources as the base for an economic structure. Serra was curious to determine why his hometown Naples, despite having a significant amount of natural resources,

was still a backward and poor state when compared to Venice, a small but very rich city-state with no natural resources. Serra concluded that the Venetians did not have any other option but to develop industries and related services (like banking and shipping) with increasing returns (Reinert, 2008, p. 7).

Serra's approach has proven to be right even today, since the lack of natural resources has proven not to be detrimental for high and sustained economic development (e.g. Japan, South Korea, Singapore, Germany, Switzerland, Hong Kong, Taiwan, Belgium, Luxembourg, Austria, among others). In this regard, several developmental economists and historians tend to highlight the dissimilarity between the economic strategy or path followed by the Spanish Empire and the British Empire centuries ago, which were among the most powerful empires and rivals between the 16th and 18th centuries.

However, while the British began to follow the Listian, Walpolean and Hamiltonian economic strategies to foster industrialization by the time of King Henry VII (15th century), the Spaniards had an inflexion point in their economic history after the "Guerra de los Comuneros" (Comuneros Revolt) (1520-1521). Unlike in the case of the American Civil War, the aristocratic agricultural interests ultimately won control of the country's economic policy after a failed coup against the Habsburg monarchs ("Comuneros Revolt (1520–1521)," 2020). As a result, Spain began a gradual process of deindustrialization because, instead of protecting its manufacturing, Spain protected agricultural products like olive oil, wool and wine (Fletcher, 2011a, p. 35).

Ironically, the process towards the eventual Spanish Empire's debacle would be strengthened with the discovery of the new world and the establishment of the Spanish colonies in America. After the conquests of the Aztec and Incan Empires, the coffers of the Spanish Empire would become flooded with gold, silver and other valuable natural resources. This

enormous and easy-to-get fortune would cause the Spaniards to lose any interests in construction an industrial base that not only leads the economy to the production of high value-added goods but also to diversification. To make things worse, the huge riches extracted from the colonies were not invested in the developing of productive systems and Spain kept protecting its agriculture from foreign competition, a combo that heavily contributed to the steep deindustrialization of the Empire by the end of the 16th century (Reinert, 2008, p. 84).

In 1558, the Minister of Finance from the Spanish Empire, Luis Ortiz, sent a letter to King Phillip II of Spain (1527-1598) expressing his concern about how from the raw materials that Spain exported to other nations, which cost the latter only 1 florin, the foreigners produced finished goods which they sell back to Spain for between 10 and 100 florins, explaining a situation where the Spaniards were buying back their own raw materials at an exorbitant price (Lasso, 2010, p. 190). This is basically the same dynamic that we found today in many developing countries that only specialize on exporting natural resources.

Moreover, the Swedish economist and first professor of economics in Sweden, Anders Berch (1711-1774), would later claim that the real gold mines, the ones that would lead to economic progress and long-term prosperity, were not the physical gold mines but the manufacturing industries by highlighting how the immense fortunes from the colonies had impoverished rather than enriched the Spanish Empire in the long term by undermining its capability to produce high value-added goods and services (Gelderblom, 2016, p. 22). It is known how the might and richness of the Spanish Empire would decline to the point that it would be considered a backward and weak country in comparison to the British, French, Germans, Dutch, Austria-Hungarian, Russians, Japanese or Americans by the end of the 19th century. Spain would only converge again with the level of its European peers in the second half

of the 20th century, after adopting many of the policies recommended by List, Hamilton and Walpole.

There are several examples throughout history about the risks and negative long-term effects of basing an economy entirely on the extraction of natural resources. However, the case of the Pacific Island nation of Nauru is one of the most compelling. Thanks to its geographical settings and natural fauna, the island accumulated seabird droppings for thousands of years, covering it with a thick layer of guano (a phosphate-rich substance used for the production of fertilizers). The discovery and subsequent extraction of these deposits during the 20th century gave the Nauruan people huge earnings to the point that for a few years in the late 1960s, the country had the highest GDP per capita in the world. However, after more than 100 tons of guano were extracted and exported from the island, the deposits eventually ran out, the economy collapsed and unemployment neared 90% by the end of the 20th century, making the nation highly dependent on foreign aid. Additionally, about 75% of the island's land was left mostly uninhabitable due to the continuous and heavy extraction processes (Fletcher, 2011a, p. 104). Even though this is an extreme case, it perfectly shows the risks of relying too much on natural resources²² and some countries today could face a similar fate like in the case of the oil-rich Persian Gulf nations, although many of them are already making efforts to diversify their economies away from oil (e.g. UAE and Qatar with tourism, shipping, IT, construction and finances).

²² The Guano boom (1840-1870) helped propel Peru out of the initial chaos of the country's post-independence era in the mid-19th century as 12 million tons of guano valued at USD 500 million were extracted and exported, mainly to the U.S and Britain. Nonetheless, the government ultimately failed to capitalize the boom and by the late-19th century, all earnings were virtually gone without any significant diversification or productivity upgrade for the overall economy (The Great Peruvian Guano Bonanza: Rise, Fall, and Legacy, 2011).

A more recent example of how counterproductive the reliance on natural resources can be is the so-called “Dutch disease” which describes a situation where a sudden rise in the value of the exports of natural resources can produce an appreciation in the real exchange rate, which, in turn, makes the exports of non-commodities more difficult and competing with imports across a wide range on commodities almost impossible (also called the spending effect). On the other hand, foreign exchange earned from the natural resources’ exports may be used to purchase internationally traded goods, at the expense of domestic manufacturers of the goods, which causes domestic resources such as labor and materials to be shifted to the natural resources’ sector (also called resource-pull effect) (Humphreys et al., 2007, p. 5).

The term Dutch disease was coined by *The Economist* magazine in 1977 when the publication analyzed a crisis that occurred in The Netherlands after the discovery of vast natural gas deposits in the North Sea in 1959. The newfound wealth and massive exports of oil caused the value of the Dutch currency to rise sharply, making Dutch exports of all non-oil products less competitive on the world market. As a result, unemployment rose from 1.1% to 5.1%, and capital investment in the country significantly dropped. In this way, the term became widely used in the field of economics to describe the paradoxical situation in which seemingly encouraging and positive news (the discovery of large oil reserves) negatively impacts a country's broader economy in the long term (Chen, 2019a).

This also explains how earnings from natural resources tend to be more volatile, depending on the international demand and subsequent prices for commodities traded in the world market. The results can be high levels of expenditure in good years followed by deep cuts in bad years, tempting governments to borrow from abroad during the good times (prices are high), which can have a positive short-term effect, but when prices eventually fall, lenders

demand repayment. This is why, considering that natural resources are non-renewable in general, any consumption of revenues from sales should be viewed as a consumption of capital rather than a consumption of income (Humphreys et al., 2007, p. 8).

Further explanation about the problem with the sole reliance on natural resources is that, besides from their non-renewable nature, they simply need to be extracted, meaning that wealth does not need to be created or produced at all, which entails that the generation of wealth from natural resources can happen without the need of investing or developing other economic processes besides those strictly related to the commodities' industry (low levels of diversification) and the extraction can also take place without the participation of a large segment of the domestic labor force (Humphreys et al., 2007, p. 4). This presents a potential situation where many individuals (entrepreneurs, corrupt politicians, dictators, monarchs and warlords) or groups (political parties, aristocrats, mining clusters, etc.) can adopt a rent-seeking behavior in order to enrich themselves at the expense of the society without the need to invest on public goods and services such as infrastructure or education, nor on the diversification of the economy (George, 2010, p. 116). This is was is often referred to as the natural resources curse²³.

Those countries that have successfully escaped the curse are those who understood and followed the principles of Walpole, Hamilton and List, acknowledging that rapid and sustained economic development could be achieved only through a massive and constant movement out of low-productivity peasant agriculture and into industrial production, continuing through an

²³ The resource curse, or resource trap, is a paradoxical situation in which countries with an abundance of non-renewable natural resources experience stagnant economic growth or even economic contraction. The resource curse occurs as a country begins to focus all of its production means on a single industry, such as mining or oil production, and neglects investment in other major sectors. As a result, the nation becomes overly dependent on the price of commodities, and the overall gross domestic product becomes extremely volatile (Chen, 2019b).

unceasing movement up the value-added chain from low-skill, low-capital, low-wage manufacturing (sewing garments and assembling toys , luggage , trinkets , and shoes) and moving up to higher-capital, higher-skill, and higher value-added industries (steel, shipbuilding, aircrafts, automobiles, electronics, semiconductors, etc.) (Cohen & De Long, 2016, p. 16).

These activities boost economic growth and overall incomes in the economy because, like Minister Ortiz told King Phillip II, a finished and processed product might cost from 10 to 100 times the price of the raw materials used to manufacture the product, which means that between raw materials and the finished product lies a phenomenon that is known as the “Manufacturing Multiplier”: an industrial process demanding and creating knowledge, mechanization, technology, division of labor, increasing returns and employment for the masses of unemployed that always characterizes poor countries²⁴.

This, of course, does not mean that natural resources are detrimental for economic growth by default, since it is true that they have helped to raise living standards, provide important opportunities and produce economic booms in many countries, many of which had more or less auspicious results. Nonetheless, they are most likely to fail when it comes to produce self-sustaining growth and high income per capita in the long run. As a matter of fact, several studies have shown that resource-rich countries grew less rapidly than resource poor countries during the last quarter of 20th century (Humphreys et al., 2007, p. 1).

²⁴ Proximity to industry also creates cumulative virtuous cycles with agriculture, whereas an agricultural sector that does not share the same labor market with a manufacturing sector will not experience those effects (Reinert, 2008, p. 137)

There is also a matter of timing for when a country discovers a significant deposit of natural resources such as oil, gas or minerals. For instance, high-income countries that discovered these resources after they already achieved significant levels of industrialization, diversification and institutionalization (e.g. Norway, Britain, The Netherlands) have not been victims of the vicious effects from the natural resources curse. Interestingly, less-developed countries such as the U.S in the second half of the 19th century were not affected either because when oil was discovered there, there was no market for it, so the industrialists of the time such as Rockefeller and Ford had to create one (George, 2010, p. 117).

Industry over Agriculture: Increasing Returns vs Diminishing Returns

One of the main arguments against the specialization and reliance on natural resources and raw materials is the contrast between increasing and diminishing returns, concepts that have been present since the time of Antonio Serra or King Henry VII. In the 1840s, List put the increasing returns factors back on the map in terms of economic policy and theory, turning it into the main argument for the U.S and European countries to pursue industrialization since it was clear that sustained economic growth could only happen with industries exhibiting increasing returns (Reinert, 2008, p. 38).

But what the difference between diminishing and increasing returns? The former is explained by the inability to extend production beyond a certain point at falling cost, meaning that if one input in the production of a commodity is increased while all other inputs are held fixed, a point will eventually be reached at which additions of the input yield progressively smaller, or diminishing, increases in output. This is also known as the law of diminishing marginal returns in the economics field (Encyclopedia Britannica, n.d.-c). For instance, buying another \$1,000,000 worth of tractors for a coffee plantation that already has them won't increase

the plantation's productivity very much. This can also mean that after a certain point, a 10% additional investment in capital delivers not 11% or 10%, but 9% more output, then it will subsequently deliver 8% and so on (Fletcher, 2011a, p. 190).

Conversely, an industry with increasing returns is one where it can absorb endlessly rising capital investment, that is, a capital investment of 10% will deliver 11% more output, then 12% and so on. For instance, putting another \$1,000,000 into production machinery in an automobile or semiconductor plant will have a significant effect for its productivity and innovation process. Thus, having many industries subject to this dynamic is really the only way to become a developed economy and the fundamental purely economic difference between the First and Third Worlds is that the former is full of these industries, while the latter is often full of those with diminishing returns (Fletcher, 2011a, p. 192).

Another disadvantage of relying on natural resources for development is that, besides from the fact that they can create an enclave economy, they often operate in an environment with pure or perfect competition, which describes a situation where all firms sell an identical product (a commodity / little or no product differentiation) and all participants are price takers, meaning that they cannot influence the market price of their product, which also tend to have inelastic demands attached to them (as a result, productivity growth in agriculture tends to translate into lower prices for consumers, not higher wages for farmers) (Hayes, 2019). This situation is often found in markets for agricultural and mining products and is also often combined with a context of diminishing returns because the productivity of these industries will diminish rather than increase as they increase their production (the best and more resources-rich mines, fisheries and fields are exploited first), which, for example, means that every additional ton of carrots would

be increasingly expensive to produce, but the world market price of carrots would not compensate the producers for this.

On the contrary, manufacturing and services industries do not have to concern nor are restricted by quality or quantity of natural resources, they experience falling costs and increasing returns as they expand their economies of scale, they are good at absorbing capital due to their susceptibility to innovation and research. This gives them enough market power to a level that makes them able to influence and many times decide the selling price of their products and services. This can be referred as imperfect competition, an economic dynamic that often goes in hand with increasing returns, which enables economies to set a virtuous cycle where innovation absorbs capital then repays it by raising profitability, generating more capital and repeating the cycle (Fletcher, 2011a, p. 192).

Poor countries are the ones that tend to specialize in industries subject to the law of diminishing returns, perfect competition and with little or no technical change, or also in those economic activities which rich countries can no longer mechanize or innovative further (Reinert, 2008, p. 109). This usually creates a situation called as the “Dual Economy”, which is a typical feature of developing countries where there is a coexistence of a modern commercial sector alongside a traditional subsistence sector whose differences in productivity imply substantial losses in aggregate productivity for the country, especially because increases in productivity in commodities tends translate into lower prices (the opposite happens in the case of industries) (Vollrath, 2009).

A very influential proponent of importance of the concept of continuous diversification, research & development, innovation and investment in industries and activities subject to increasing returns (“Good industries”) as the key to economic growth was the Austrian-Czech

political economist, Joseph Schumpeter (1883-1950), who is now regarded as one of the 20th century's greatest intellectuals. Schumpeter is famously known for coining the term “creative destruction”²⁵ in his 1942 book titled *Capitalism, Socialism, and Democracy* in order to describe a new insight into how economies grow. To explain this in his own words:

“The same process of industrial mutation that incessantly revolutionizes the economic structure from within, incessantly destroying the old one, incessantly creating a new one. This process of creative destruction is the essential fact about capitalism” (Liberto, 2019).

Moreover, Schumpeter acknowledged the fact that most low value-added activities (or those with diminishing returns) simply could not absorb the necessary technological innovations that would ultimately lead to the upgrade of both productivity and wages²⁶ (Fletcher, 2011a, p. 194). Effectively, Schumpeter believed that the driving forces of economic growth are inventions and the innovations that are created when these inventions are brought to the market as new products or processes. Thus, it can be said that high-tech and constantly innovating industries are dominated by an increasing-returns-Schumpeterian dynamic with high barriers of entry for new competitors, high skills, high risks but most importantly, high rewards (Reinert, 2008, p. 113).

In addition to this, Harvard economist Dani Rodrik (2019, p. 80), explains that manufacturing is an escalator for poor countries because there tends to be a positive productivity

²⁵ Economist Erik Reinert (Reinert, 2008, p. 182) states that specializing on natural resources would be considered by Schumpeter as equivalent to “Destructive Destruction” for an economy rather than “Creative Destruction”.

²⁶ When innovations appear in the field of raw materials and commodities, they tend to come from outside the industries. Agriculture, for example, has benefited from genetic engineering and improved tractors, but created neither of these innovations itself (Christensen et al., 2019, p. 194).

dynamic to related industries and that successful industries of this kind can expand almost indefinitely adding that he concluded from his personal research that manufacturing have the potential to close the gap with technological leaders at the rate of 3% per years regardless of the impact of other factors such as policies, institutions or geography. Moreover, by establishing in “easy” manufacturing sectors (such as garments), poor countries will experience steady increases in productivity and will be able to jump on to other, more sophisticated industries in time, in a similar dynamic to that of the “Flying Geese Paradigm”²⁷.

Economist Ian Fletcher (2011a, p. 192) adds that because “good” industries tend to produce goods and services that are capable of infinite and unrestrained innovations and improvements (like in the case of laptops, smartphones, 5G technologies, airplanes or pharmaceuticals), these goods give companies (and therefore, countries) the ability to differentiate from competitors and operate in an environment where they must focus on the competition regarding quality, reliability, reputation, marketing, service, innovation and sophistication, instead of concerning about decreasing profits, wages and funds available for further investments like in the case of industries subject to diminishing returns.

²⁷ The “Flying Geese Paradigm” was first conceived by Japanese economist, Kaname Akamatsu (1896-1974). According to Akamatsu, the lead goose in the formation, was Japan. As the “lead goose” lost its comparative advantage (Japan), it would shift further away from labor-intensive production to more capital-intensive activities. Meanwhile, those labor-intensive activities would move to nations further down the hierarchy (second-tier countries like South Korea, Taiwan, Singapore). In time, the latter would also abandon labor-intensive activities, and these would keep moving down the hierarchy (third-tier countries such as Malaysia, Indonesia, Thailand and The Philippines), and so on (China and India were considered as the last tier). For example, the textile industry was abandoned in Japan as labor costs rose, but also, at a later stage, by countries in the second tier, South Korean and Taiwan (Singh, 2010).

As stated above, this lack of perfect competition in manufacturing and innovative industries leads to market power and companies with enough market power can virtually put the prices they want (due to the elasticity of their products) and experience high rates of investment returns and profits (e.g. Apple, Boeing, Pfizer, Samsung, Intel, Microsoft, AT&T, Unilever). As Michael Porter explains, lower-order advantages (low-cost labor or cheap raw materials) are relatively easy to imitate or replace, while higher-order advantages (technology, differentiation, marketing or customer relationships) are more sustainable and long-lasting since they are much harder to replace or imitate. In order to achieve this situation, nations must invest in advanced skills, capabilities and facilities for continuous R&D (Gereffi & Korzeniewicz, 1994, p. 102).

Needless to say, at this point, that Ricardo's theory of comparative advantage is useless if a country that has a comparative advantage in "bad" industries wants to develop new industries and learn to produce completely new things that allows it to obtain industries based on increasing returns. Similarly, Adam Smith's invisible hand and free trade theories (especially premature free trade) would also not help developing countries to catch-up and climb the technological ladder effectively.

The continuous innovation and technological expansion achieved by the world's leading economies in the last 4 to 3 decades have also had an important reconfiguring effect within the manufacturing industries. As in the case of agricultural activities, there are even now significant distinctions among different types of manufacturing activities in terms of their potential to boost economic growth and deliver increasing returns. While, for many centuries, "bad" industries always meant agriculture and the extraction of raw materials, since the 1980s, low-skilled manufacturing activities have been resembling more and more to natural resources in terms of economic outcomes and returns (Fletcher, 2011a, p. 193).

This is especially the case of the so-called “Maquiladoras”²⁸, whose critics claims that they offer nothings but “dead-end” jobs and sectors, trapping developing countries into providing and competing for cheap labor for low value-added assembly operations that do not stimulate the overall and sustained economic growth of the country (Gereffi, 2019, p. 183). Therefore, economists such as Reinert, Fletcher, Rodrik and Stiglitz state that it is important for developing countries not to confuse a “maquila-style” industrial setting with those that actually bring long-term growth and prosperity (“Good” industries), that is, the high-skilled, high-innovative and technologically advanced industries.

Another factor that is important to consider for developing countries to successfully climb the technological ladder, and that was strongly recommended by Schumpeter, is that for “good” industries to effectively exploit the wealth-creating potential of innovation, technological progress and increasing returns, the role of financial investments is critical. Schumpeter described both the entrepreneur and the financier as the two most important and interdependent drivers of capitalist innovation (Schumpeterian Competition) in the pursue of superior products, processes, technology, organization, increase productivity, high-paying jobs and a comparative advantage based on increasing returns (Best, 2018, p. 35).

In summary, evidence shows that in order to achieve high levels of sustained economic growth and increasing wages, developing countries must focus their efforts away from low-

²⁸ Maquiladora is Spanish term for a factory located in Mexico that operates under a favorable duty-or tariff-free basis with the American market. The word “maquiladora” is commonly used in English rather than its translation, “assembly plant.” A maquiladora is a manufacturing operation or factory that imports raw materials and equipment for assembly, processing or manufacturing. Its products are then exported under a special program that grants them tax breaks and other benefits. Most maquiladoras in Mexico produce electronic equipment, clothing, plastics, furniture, appliances and auto parts, with clothing being the top product (Kenton, 2018).

quality activities (“bad” industries) with the following characteristics: old knowledge with low market value, low levels of differentiation, little division of labor, low-income elasticity of demand, large price fluctuations, low and reversible wages, flat learning curves, little technological progress and innovation, low R&D content, perfect competition, little or no economies of scale, risk of diminishing returns, low barriers of entry and exit, as well as few linkages and synergies with other sectors. On the other hand, these countries should direct their policies and efforts towards the development of “good” industries with the following characteristics: high diversity, large division of labor (maximizing number of professions), specialization in technologies leading to increasing returns, large economies of scale, falling costs of production, high barriers of entry, stable prices, increasing and irreversible wages, large synergies (clusters), constant innovations with high market values, steep learning curves, high R&D content and, last but not least, imperfect but dynamic competition (Reinert, 2008, p. 317).

Although it is true that no nation can have an economy that entirely consist only on the so-called “good” industries because some of the low-skilled and agricultural industries are indeed necessary since they also contribute with employment and economic outputs. Nonetheless, it is clear that the more of a nation’s economy is in good industries, the stronger its economy will be today and the better its growth prospects tomorrow (Fletcher, 2011a, p. 195).

Expansion of the Middle-Class: The Prosperity Virtuous Cycle

It is no secret that a strong and prosperous middle class is a key characteristic of developed nations and healthy economies as it is the base for one of the most important aspects of a dynamic-capital economy, demand and consumption. According to development economists, the common characteristics of failing states are, besides commodity competition in

export activities with diminishing returns and a comparative advantage in supplying cheap labor to world markets, a small or no urban middle-class with low levels of division of labor, low levels of education, and significant levels of brain drain (Kattel et al., 2009). In that sense, a strong middle class is highly dependent on the productive and economic structure of a country.

A strong middle class performs a series of primary roles in the benefit the overall economy. As stated before, it is a source of stable demand of growing consumers that enable businesses to invest in new products, hiring more workers and boosting growth. A strong middle class also creates more skilled, healthy and entrepreneurial-human capital that continuously drives economic growth as much as the investment in physical capital. A buoyant middle class also lead to better governance and increases the levels of trust among people, and when there is little trust in a society, not only the cost of doing business goes up but businesses then tend to focus on short term instead of long-term results (Madland, 2015, p. 17). A strong and wide middle class also means an increasing tax base for governments as workers are moved out from the informal economy²⁹, this allows a government to extend its social security network, critical infrastructure, services provision as well as it education and health sectors (Reinert, 2008, p. 115).

However, if the middle-class struggles and is weak, with large percentage of poor people or people living in vulnerable situations in terms of income, a cycle of low demand and low growth can become constant as people cannot consume enough to keep the economy in a

²⁹ Regarding the linkages between high value-added industries and social prosperity, Joseph Stiglitz adds that governments that are able to generate revenue from the sale of natural resources are less reliant on citizens, since the former are more reliant on external income sources rather than on domestic revenue (this country's revenue is largely independent of the strength and success of the overall domestic economy), which leads to a situation where states have less of a need to develop a bureaucratic apparatus to raise revenue (taxes) and, therefore, the informal economy is magnified (Humphreys et al., 2007, p. 11).

dynamic state. A weak middle-class can harm the economy through both production (supply-side) and consumption (demand-side) mechanisms, but it also means that the full human potential of a country is not developed and people become less civic-minded³⁰ (Madland, 2015, p. 18).

In that sense, and according to Rodrik (2019, p. 82), economic development (and thus, the expansion of the middle class) happens when workers and farmers move from the traditional, low-productivity sectors (“bad” industries with diminishing returns) to modern manufacturing industries and services due to the fact that manufacturing is a great absorber of unskilled labor, which is a low-income country’s most plentiful resources³¹ (e.g. China and India). As workers move towards these new industries, the economy’s overall productivity increases and the productivity gap between the traditional and modern sectors of the economy decreases, which not only raises wages but also reduces the perverse effects of the dual economy. This is because traditional industries such as agriculture get to a point where they cannot absorb further technology and capital, and when productivity of these sectors increases it often means that less workers or human capital is needed, which is why they tend to remain undercapitalized and the societies that host them do not accumulate wealth (Fletcher, 2011a, p. 194).

This dynamic argues that when countries rely too much on natural resources and traditional sectors, the governments tend to disregard the need for a diversified and skilled

³⁰ Poverty associated to countries with a weak middle-class also means weak law enforcement, which lets people get away with illegal behavior, and makes breaking the law more culturally acceptable (H. Chang & Grabel, 2005, p. 195).

³¹ Moreover, countries rich in natural resources, in particular, oil and gas, are less likely to have democratic political systems (e.g. Saudi Arabia, Russia, Venezuela, Qatar, UAE, Iran, Thailand, Congo DR, Iraq, Cameroon, Kazakhstan, etc.) (Humphreys et al., 2007, p. 12)

workforce that can boost other more modern industries in the long-term, as high-skilled labor is not necessary for the government to obtain significant revenues from the exports of commodities. Conversely, when a country's wealth depends on manufacturing and high value-added industries, investments in human capital becomes essential (Humphreys et al., 2007, p. 10). Therefore, high-skilled manufacturing, market innovations and the productivity explosions attached to them constantly create jobs as more and more people are required to make, market, distribute and sell the new innovations, allowing to raise living standards fast as they create profits for a wide share of the population.

This widespread profits alongside the increase taxes can be used by governments to invest in public services and goods such as education, healthcare, infrastructure, which is why they have the potential to drastically change entire societies and their cultures³² (e.g. U.S, Singapore, South Korea, Japan, Ireland, Finland, etc.) (Christensen et al., 2019, p. 11).

Furthermore, an increase of wages in the “good” industries due to the productivity explosions will automatically raise all wages across the economy of a country. According to economist Erik Reinert (2008, p. 132):

“barbers had little productivity development since the Romans, yet the wages of hairdressers in industrialized countries have kept more or less in step with the wages

³² In 1911-1912, Beatrice Webb, the famous leader of British Fabian Socialism, described the Japanese as having objectionable notions of leisure and a quite intolerable personal independence, and the Koreans as dirty, degraded, sullen, lazy savages. The British also used to say similar things about the Germans before the economic take-off of this nation in the mid-19th century, describing them as dull and indolent people, too individualistic and unable to cooperate. Many of these apparently unchangeable habits of national heritage can be, and have been, transformed quite quickly by changes in economic conditions. Thus, culture is the result as well as the cause of economic development. This shows that many prosperous countries today were once poor, corrupt, and badly governed. But the proliferation of innovations began a process that helped transform these economies. (H. Chang & Grabel, 2005, p. 183,196)

of the industrial workers. For the same haircut, hairdressers in rich countries can acquire far more industrial goods than they could 200 years ago. Workers in poor countries are just as efficient as those in rich ones, but the difference in real wages is enormous”.

This explains why the manufacturing multiplier (industrial process demanding and creating knowledge³³, mechanization, technology, division of labor, increasing returns and employment for the masses of unemployed) is the key to long-term progress. In contrast, Reinert (2008, p. 150) further explains that, even in the world’s most efficient agricultural countries, like the U.S and Europe, wages in agriculture are far below those in industry and services and many of these industries are unable to survive without subsidies and protection.

On the other hand, in the case of reliance on natural resources, since these industries are always looking for ways to improve efficiency of extraction and cost reduction, they need less and less workers and investments in human capital. For instance, according to data from Nigeria’s Bureau of Statistics, a country that is one of the world’s largest oil producers (trapped in many of the perverse effects typical to relying on “bad” industries), “the oil and gas sector employs only about 0.01% of the Nigerian workforce even though the oil and gas sector accounts for more than 90% of Nigeria’s export revenue and more than 70% of government revenues” (Christensen et al., 2019, p. 25).

³³ Innovation is not the same thing as invention, which describes the process of creating something entirely new that has never existed before. Innovations are often borrowed and then improved upon. For instance, many industries were created to provide supplies directly to automakers, such as steel, oil, paint, glass, and rubber. (Christensen et al., 2019, p. 20).

Even the U.S shows a similar paradigm. In 1980, there were approximately 220,000 employees in the oil and gas extraction industry responsible for producing roughly 8.6 million barrels of oil. However, by 2017, the number of employees in the sector had fallen by more than a third to about 146,000, but production had increased to over 9.3 million barrels a day (Christensen et al., 2019, p. 25). Therefore, in the absence of alternative employment opportunities outside the sector depending on natural resources, a large share of the population will be forced to work in “bad” industries, which will create a downward pressure on the national wage level, especially considering that competition between poor countries is strongly based on low wages in order to be internationally competitive (Reinert, 2008, p. 135).

Moreover, like in the case between different types of manufacturing industries, it is also important to highlight that there are even differences within the natural resources field since some natural resources produce greater linkages to knowledge intensive sectors than others. In this matter, Reinert (2008, p. 185) describes the findings of Cuban social scientist, Fernando Ortiz (1881-1969), who explained in 1940 how for the Cuban society, tobacco was the “hero” and sugar was the “villain” (Cuba had an absolute advantage in both products) because tobacco created a middle class, a demand for specialized skills, national ownership and stable prices, while sugar created masters and “slaves”, dependence of foreign multinationals, fluctuating prices. So, the economic and social outcomes were inherent to the crop itself. It can be said that the sugar scenario in Cuba was similar to that of cotton in the U.S before the civil war. About this, the Italian economist and enlightenment figure, Ferdinando Galiani (1728-1887) stated that from manufacturing you may expect the 2 of the greatest ills of humanity, superstition and slavery, to be healed (Reinert, 2008, p. 86).

Additionally, and as mentioned in the previous section, it is also important for developing countries not to get trapped solely in the so-called technological dead-ends of maquila-type manufacturing. When a new technology or process is born (usually in developed and technologically advanced nations), it is produced and exported by the country that developed it as long as it has a steep learning curve and potential for profits. Nonetheless, these potentials are gradually reduced and learning eventually flattens out, exhausting most of its possibilities for increasing wealth. At this point, this technology or process is outsourced (because there is no more learning or benefits to be squeezed from it) but it will be very hard for this to increase the overall standard of living in the host country, which is usually a developing one.

The most advanced nations specialize in capital and innovation-intensive goods, where scale and increasing returns are key elements, whereas the less advanced countries come to specialize in low-tech goods. For instance, the U.S used to be a producer and exporter of shoes, but now shoes are barely produced in the U.S and the country basically only imports them (Reinert, 2008, p. 139).

In the last years, there have been several critics from development economists about the approach that most developed countries and international development organization adopted in order to tackle poverty and economic stagnation in developing countries, an approach based on the so-called palliative economics and “push” economic strategies, which are basically short-term economic aid that addresses the symptoms of poverty without at all attacking its causes (H. Chang & Grabel, 2005, p. 471) by just providing resources such as cash transfers to governments, building schools and roads (with no other plan or strategy attached), toilets for extreme poverty areas or small upgrades for farmers. In other words, pushing the resources that

rich nations have, and that poor communities lack, as a way to solve an underdevelopment problem.

Although it is reasonable to assume that poor countries are stuck due to a lack of access to resources, push strategies do not always succeed, and they often only achieve temporary results or reliefs. However, a country would not necessarily progress and develop just by building a lot of schools, hospitals, roads or airports, nor by just adopting institutional frameworks imported from developed nations. It is no hard to find “white elephants” throughout the developing world such as abandoned or underused hospitals, schools, highways, stadiums or bridges, and also cases of failed implementations of imported institutions.

This is mainly because these infrastructures and institutions are often established or “pushed” to societies that have no effective nor efficient way to take full advantage of them. In other words, there are no markets comprised by businesses, industries, services, consumers (middle-class) and entrepreneurs that can use the potential of these infrastructures to spread prosperity and economic growth. Thus, once the “good” industries effects begin to create a growing middle class, generating and strengthening domestic markets that turn former poor non-consumers into active consumers, is when a domestic economy can “pull” and effectively take full advantage of the other necessary elements to further boost development such as infrastructure, education policies and institutions (Christensen et al., 2019, p. 11, 36, 76).

For instance, a strategy based on education that expands the related infrastructure is only truly successful when it is combined with an industrial policy that not only expands the demand for low-skilled workers but also for high-skilled labor for activities such as marketing,

management, innovation, product differentiation, etc³⁴. Otherwise, the more educated people will start to migrate, leading to high levels of brain drain. Therefore, an education policy must be matched by an industrial policy that creates demand for the graduates (Reinert, 2008, p. 136). This is why investing in industrial growth and market-creating innovations to create a violent structural change that leads to increased productivity serves as a critical catalyst and strong foundation for achieving sustained economic development in poor countries.

CHAPTER 4- THE AMERICAN DEVELOPMENTAL STATE: A KEY BUT IGNORED PLAYER IN AMERICAN HISTORY

Escaping from Natural Resources and Successful Capitalism: It doesn't happen just because

The natural resources curse discussed in the previous chapter was also identified in the mid-18th century by one of the leading German political economists, Johann Heinrich Gottlob von Justi (1717-1771), whose stated that it could be take for granted that all countries producing only raw materials would sooner or later understand that they were being kept artificially poor. This, combined with the theories of other renowned economists such as List and Hamilton, convinced all major nations during the 19th century to follow the British path to industrialization. There was little doubt that this was the right and fastest way to achieve development, but there

³⁴ In the mid 1950s, the economist Moses Abramovitz tried to measure what percentage of economic growth could be attributed to the variables that traditionally have explained growth: capital and labor. Surprisingly, he found that the 2 factors combined could only explain 15% of growth during the period between 1870 to 1950, while the remaining 85% was activity specific, meaning that diversity and increasing returns were the self-reinforcing mechanisms of economic growth (Reinert, 2008, p. 276).

was always the discussion about which was the correct balance between the role of the state and private activity (Reinert, 2008, p. 167).

Despite the importance of developing dynamic-capitalist markets, history has shown that a sound industrialization process has generally been preceded by the establishment of a purposive and well-organized state that works closely with the productive industries, facilitating their development and intervening in order to support investors. Thus, it can be said that, if industrialization and economic development is a chariot, then states and entrepreneurs are the 2 horses, and they will move faster if both horses are strong and pull in the same direction (Kohli, 2004, p. 21).

In this regard, a 2005 study conducted Ricardo Hausmann (1956), Dani Rodrik (1957), Lant Pritchett (1959), found that while growth accelerations are a frequent occurrence, sustained growth in the developing world is rare and often fails to convergence with the living standards of the advanced countries. Natural resource discoveries, garment export from maquilas, or a free-trade agreement may spur growth for a limited time, but market forces are not necessarily enough to generate the kind of dynamism needed to maintain productivity over time. Thus, market forces need be complemented with proactive public strategies and policies that encourage technological adoption and diversification of the productive structure, ensuring that the economic momentum is maintained. Otherwise, the economy will lose impulse and growth will simply fade³⁵. The economists concluded their study arguing that industrial restructuring rarely takes

³⁵ Governments in developed countries have played a critical role in establishing mechanisms to socialize the risk involved in investments for innovation, technology projects and entrepreneurships. Without a state that supports entrepreneurs and shows willingness to absorb potential financial loses, it is harder for infant industries to get involved in risky projects and survive in case they fail (H.-J. Chang, 2002, p. 126)

place without significant government assistance (Rodrik, 2009, p. 94). This factor has had a more significant impact than other numerous variables that can influence a country's economic performance such as the international context, resource constraints, differing starting technological points, demographic factors, geography, national price and savings regimes, and entrepreneurship levels³⁶ (Kohli, 2004, p. 3).

Indeed, history of economic processes repeatedly emphasizes the significance of institutions, especially the role of the activist government as a key ingredient of rapid development. The successful transition to higher value-added industries does not happen naturally or automatically, and heavily depends on the ability and willingness of the state to implement policies that facilitate this shift away from natural resources. This explains why virtually all of today's developed countries used interventionist industrial, trade and technology policies in order to promote their industries (H.-J. Chang, 2002, p. 126). Conversely, malfunctioning and purposeless states in terms of industrial policies have contributed heavily to developmental failures, like in the case of many sub-Saharan Africa states.

Regarding the role of the state and the industrialization process, one of the most prominent economists and social scientists during the early-20th century, Werner Sombart (Germany, 1863-1941), explained that it was clear that economic development was the result of a conscious industrial policy designed and established by the state and its institutions, which

³⁶ Many developing countries are poor not due to the lack of individual entrepreneurial energy, but to the lack of productive technologies and social organizations developed by modern companies as well as to the high levels of informality and absence of the state in the market. In fact, in developing countries, people have much more entrepreneurship spirit than in developed ones. According to an OECD study, between 30% and 50% of the non-agricultural labor force in most of developing countries is self-employed. This figure can be much higher as in the case of Ghana (66.9%), Bangladesh (75.4%) or Benin (88%). In contrast, only 12.8% of the non-agricultural labor force in developed countries works on their own or even less as in Norway (6.7%), USA. UU. (7.5%) or France (8.6%) (H.-J. Chang, 2012, p. 184).

created the appropriate conditions for a buoyant and prosper capitalist system. Sombart described the modern state, the entrepreneur and industrialization as the driving forces of capitalism, while he considered elements such as capital, labor and markets as complementary forces, which would be sterile without the main driving forces (Armitage & Roberts, 2016).

For Sombart, the modern state creates the institutions (legislation to infrastructure, patents to protect new ideas, schools, universities, and standardization of units of measurements, etc.) that allow improvements in production and distribution and creates the incentives that make the vested interests of the entrepreneur coincide with the vested interests of society at large. The entrepreneur (industrialists), where the agent that took the initiative to produce and trade goods and services in a market economy, and industrialization (what he referred as “the machine process”) boosted productivity and technological progress opening the doors of innovation under economies of scale and synergies. Schumpeter would agree with this and base some of his theories on Sombart’s logic (Reinert, 2008, p. 121).

Another important development economists such as Albert Hirschman (1915-2012) in his famous book *The Strategy of Economic Development* (1958), states that the 2 pillars of economic growth are the setting of an appropriate investment climate by the state and the empowerment of poor people (Rodrik, 2009, p. 45). Sombart’s, Schumpeter’s³⁷, Hirschman’s, List’s and even Hamilton’s logic about the linkages between industry, the role of the government and economic development would be later be endorsed not only by current renowned economists

³⁷ Based on the concepts of Sombart and Schumpeter, the concept of the Triple Helix (Industry, Government and University) would be developed in the 1990s, identifying the relationship between these actors as the key to generate new institutional and social formats for the production, transfer and application of knowledge, encompassing Schumpeter’s creative destruction concept that appears as a natural innovation dynamics (Stanford University, n.d.).

such as Rodrik, Reinert, Chang, Pritchett, Hausmann or Stiglitz, but also by other development economists like the MIT Turkish-American professor of economics, Daron Acemoglu (1967), the French professor at the College de France and at the London School of Economics, Philippe Aghion (1956), and the Italian Professor of International and Development Economics at Yale University, Fabrizio Zilibotti (1964), all who after a thorough study of development dynamics, found out that economic growth based on the adaptation of existing technologies and innovation to create new ones, are not only the 2 most important types of learning for an economy but are also less likely to happened automatically (Acemoglu et al., 2002).

At this point, it is important to emphasize that the theories and findings of these economists do not suggest that an activist an interventionist state means the adoption of an antimarket approach for the economy nor a resemblance to a Soviet-style state, on the contrary, they state that this type of effective state-intervention dynamic in many of the now developed nations was often characterized by a market-reinforcing behavior, in the sense of supporting profitability for private investors, which is why the traditional state vs market dichotomy or “mind-set is simply not very helpful for understanding how the interaction of states and markets has served to produce a range of economic outcomes” (Kohli, 2004, p. 11).

In what refers to trade, and as previously analyzed, “good” and successful industries have been developed within advanced nations such as the U.S, less according to classical free market dynamics and more according to the choice and determination of the nation doing the industrial targeting and the willingness of the government of the targeted industries to permit it (Cohen & De Long, 2016, p. 15). This does not mean that a country will develop if it tries to pursue a strategy of total autarky, since it is not a surprise that by isolating itself from the international market, it will just remain stuck and underdeveloped (e.g. North Korea) and if it

attempts to produce the high-added-value ones itself through an import substitution strategy in which it makes them only for its own market it will never achieve the economies of scale that are needed for international competitiveness. However, it will also never reach high levels of development in the long-term if it only relies on exporting low value-added goods and importing high value-added ones. Hence, targeting specific industries, investing in R&D in science and technology are key aspects to switch the productive structure of the country³⁸ (George, 2010, p. 47).

This strategy must be complemented by a mix of protection and open trade, with the areas of protection constantly changing as new infant industries are developed and the older ones become internationally competitive. Although free trade does not guarantee development, neither does protection. However, history has shown that development without it is very difficult, which is why trade was simply too important for today's rich nations to left it to free trade economics (H.-J. Chang, 2009, p. 82). Therefore, a successful industrial policy has always been bound up with protectionism, and because the mechanisms of effective protectionism are important largely for what they make happen inside the industries that make up an economy, understanding industrial policy helps illuminate what makes protectionism work (Fletcher, 2011a, p. 123).

³⁸ There are 2 key externalities that blunt incentives for productive diversification: information externalities and coordination externalities. Both are reasons to believe that diversification is unlikely to take place without direct government intervention or other public action. 1) Information externalities: The best first step policy response to the informational externalities that restrict self-discovery is to subsidize investments in new, nontraditional industries, with incentives being provided only to the initial investor, not to copycats. 2) Coordination Externalities: Many projects require simultaneous large-scale investments to be made in order to become profitable. An investor needs to know that there is electrical grid, irrigation, logistics, transport, public health measures, etc. All these services have high fixed costs and are unlikely to be provided by private entities unless they have an assurance that there will be enough coordination problem. Profitable new industries can fail unless upstream and downstream investments are coaxed simultaneously. This is why industrial restructuring rarely takes place without significant government assistance (Rodrik, 2009, pp. 106, 107).

In that sense, Reinert (2008, p. 312), explains the different characteristics of what he defines as “Good” protectionism and “Bad” protectionism. States that have implemented this strategy in a successful way have followed the following rules: temporary protection of new industries/products from the world market based on dynamic-Schumpeterian views (market driven creative destruction); domestic competition is maintained; massive investments in education (as industrial policy created a huge demand for education); meritocracy; and even income distribution increased home market for advanced industrial goods. This type of protection rules has been followed by most developed nations, especially the East-Asian ones. On the other hand, “bad” or failed protectionist strategies, often present in the case of African and Latin American nations, have been characterized by the permanent protection for industries, even the mature ones; science and technological learning that lags behind the rest of the world; protectionist dynamic based on a more static view of the world (planned economy); little domestic competition; core tech generally imported from abroad, like assembly of imported parts (Maquilas) or the so-called superficial industrialization; less emphasis on education since the type of industries created did not lead to huge demand for education; high levels of nepotism in the distribution of capital, jobs and privileges; decreased competitiveness of local industry; and profits created through static rent-seeking.

Historical patterns of how state authority is organized and used in the development process indicates that those states that adopted the latter type of “bad” protectionist and failed interventionist strategies have been often those states classified as “neopatrimonial”, where both public goals and capacities to pursue specific policies have repeatedly been undermined by personal and narrow group interests. Conversely, “good” protectionist policies and effective governmental interventions have been related to those states classified as “cohesive-capital” or

“developmental” states. These are often characterized by purposive authority structures with a competent bureaucracy, tending to equate rapid economic growth with national security and priority. The success and logic of these states have been strongly based on pragmatism rather than on ideology (e.g. laissez-faire, communism, etc.). Moreover, by institutionalizing the relation between the government and the private actors, this type of states helped to facilitate the availability of capital, labor, tech and entrepreneurship (Supply-Side) by investing in education and research and development. These states also pursued a series of policies to promote their growth, expansionist monetary and fiscal policies, and tariffs and exchange-rates policies aimed at boosting domestic demand (Demand-Side) (Kohli, 2004, p. 13).

Diversification of the American Economy: Government’s Conscious and Continuous support for Technology, Science and Innovation

In 1802, Thomas Jefferson signed the Military Peace Establishment Act, which officially created the nation’s first engineering school established concurrently with the Army Corps of Engineers at West Point, because he realized the great benefit an American engineering school could have on the country’s development, since George Washington first proposed a military academy in 1783 so that the United States would never again have to rely on foreign nations for engineers and artillerists (engineering still reigns, n.d.).

Decades later, with the national industries on the right track and heavily protected by high tariffs and other policies, the role of the American government in further boosting innovation and technological progress of the domestic economy would gradually increase since the mid-19th century. By that time, the U.S was still predominantly an agrarian nation, and as mentioned before, a strong industrial environment also needs a strong and reliable agricultural

sector (even though it was completely clear that the latter would not lead the economic progress), especially considering that the green revolution was still a century away and the Malthusian fears regarding food supply for an increasing population was quite present within the society.

In 1862, Lincoln passed the Morrill Act, which included the creation of universities offering engineering education in every state (Best, 2018, p. 53) and strengthened the government's support for an extensive range of agricultural research like granting government land to agricultural colleges and the establishment of government research institutes such as the Bureau of Animal Industry and the Bureau of Agricultural chemistry. Additionally, in the following decades, the government would put a strong emphasis in the expansion of education. Before 1850, less than 50% of the national investment in education came from public source, but this figure increased to 80% by 1900, a time when the literacy ratio of the country reached 94% (H.-J. Chang, 2002, p. 30).

During these decades, several other state-led initiatives that played a crucial role in making markets works by providing security, stability, education, infrastructure and other public goods and laws aimed to protect and create new opportunities within the economy (Martinez, 2009, p. 30). America became the perfect territory for innovators and entrepreneurs, despite the fact that the Federal and State governments shared many of the characteristics of developing country governments today, as many officials engaged in rampant corruption, working conditions were deplorable and industrial accidents were quite common (Christensen et al., 2019, p. 101).

The next major government initiatives to boost innovation would not come until the State became seriously committed to tackle the destructive effects of the Great Depression

(1929-1933), when President Franklin D. Roosevelt (1882-1945) introduced the famous New Deal, a legislative program designed to reconstruct and revive the American economy.

The New Deal expanded the role of the Federal government in shaping the economy by introducing policies that targeted specific industries via subsidies, protection from foreign competition, public procurement and public works (Stendsrud, 2016). In 1933, the Congress enacted the National Industrial Recovery Act (NIRA), which suspended antitrust laws, allowing business, labor, and government to cooperate in setting up voluntary rules for each industry like set prices and minimum wages (Appleby et al., 2006, p. 503). Moreover, Roosevelt set the foundations of a research-intensive university system in order to consolidate the country's science and technology infrastructure.

Nonetheless, it was the post-WWII era the one that would witness the most massive and committed efforts from the government to foster constant innovation and technological leadership at a worldwide scale. Whereas the share of federal funding of the total spending in R&D was only 16% in 1930, during and after WWII it remained between 50% and 65% for the coming decades (H.-J. Chang, 2002, p. 55).

In 1957, during the Eisenhower administration, the Soviet Union successfully launched the world's first man-made satellite, the Sputnik, an event that completely surprised the American leadership. According to Ricardo's theory of comparative advantage (Reinert, 2008, p. 15), this event made clear that the Soviet's had an advantage in space technology, and it could have been argued scientifically that the Americans did not, and that they should continue to focus on those industries where they were competitive or "know-how". However, and following List's and Hamilton's spirit of emulation, Eisenhower ignored Ricardo and Smith (as under a free market context it should be the private sector the one to take the initiative), and chose to respond

with the establishment of both NASA and the Defense Advanced Research Projects Agency (DARPA³⁹, formerly known as ARPA) in 1958.

The establishment of these public agencies had a clear mission, which was to prevent any future technological surprises from abroad (mainly a Soviet one), aiming to produce revolutionary technologies and face the Soviet Union in the space arena, making them two of the most successful Federal research agencies in U.S history (Graham-Rowe, 2008). It was a period of unprecedented government investment in R&D, as the Federal government also committed to the funding of world-leading universities, directly supporting the development of new technologies, established a marked leadership in areas such as aviation, semiconductors, computing, and packet switching, the core technologies of what grew to be the digital era (Cohen & De Long, 2016, p. 15).

Furthermore, a type of government support for high-tech industries and entrepreneurs that is often disregarded was significantly strengthened during this period, the government procurement contracts, which enabled companies to stake their risky investments at a time when nobody else in the market would buy their expensive and new technologies, giving them the chance to build experience that would later be applied to the civilian market and access the necessary economies of scale needed to boost mass consumption. For instance, the semiconductor industry was a massive beneficiary of subsidies during the late-1950s, as close to

³⁹ “DARPA built a deeply collaborative, flat, close-knit, talented, participatory, and flexible system, oriented to breakthrough radical innovation. Its challenge model for R&D moved between fundamental and applied, creating connected science and technology and linking research, development, and prototyping with access to initial production. DARPA eventually led to the satellite-based global positioning system (GPS), stealth aircraft and the precursor to the internet.” (Graham-Rowe, 2008).

100% of its products were bought by the Pentagon, and even as late as 1968, the military bought nearly 40% of the semiconductors produced in the U.S (Fletcher, 2011a, p. 203).

During this time, the federal government kept following a policy of economic nationalism, as the public spending on private goods and services was restricted to national suppliers, which is why it is said that America's discriminatory investments is widely considered to have paid off significantly in achieving the global leadership in microelectronics and computing services (George, 2010, p. 100). Moreover, the results of the government's effort to increase R&D were clearly seen in the case of Massachusetts, and the famous "Route 128", also known as "Boston's Technology Corridor", where the number of high-tech research companies grew rapidly from approximately 574 in 1965 to 1,212 in 1973, and to 3,000 by 1985 (Best, 2018, p. 69).

Besides government procurement, U.S administrations understood that it was necessary to create other mechanisms to socialize both the risk and rewards of risky investments from private enterprises as a way to encourage innovation. Hence, in 1958, the US Small Business Administration established the Small Business Investment Company program, which began to provide several loans and grants to early-stage companies, including Apple in 1978. In addition, in 1982, the government created the Small Business Innovation Research Program (SBIR)⁴⁰, in order to offer high-risk financing to companies at much earlier stages than most private venture capital firms would be willing to finance, from which companies such as Compaq and Intel would be funded when they were just star-ups (Mazzucato, 2015, p. 86).

⁴⁰ The SBIR still provides more than \$ 2 billion per year in direct support to high-tech firms, fostering the development of new enterprises, and has guided the commercialization of hundreds of new technologies from the laboratory to the market (Mazzucato, 2015, p. 86).

Moreover, the government also played a critical role in the development of other of the industries were the U.S has a strong global leadership, the pharmaceutical and biotechnology industries. These industries have depended from the funds from both the National Institutes of Health⁴¹ (1887) and the National Sciences Foundation (1950) to conduct basic research. Besides this, in 1983, the Orphan Drug Act (ODA) allowed small biotech firms to benefit from tax incentives, clinical and research subsidies, fast-track drug approval as well as strong intellectual property and marketing rights (Fletcher, 2011a, p. 203)(Mazzucato, 2015, p. 88).

It is often believed that Silicon Valley is the best example of the magic of free markets, free enterprise, the power of entrepreneurs and technological innovation. However, although these factors did play a role, many of the industries that now reign in Silicon Valley have a lot to thanks to early-government support, without which they would have probably never existed or succeeded. For example, and going back to the semiconductor industry, it has been the explicit target of state industrial policy since it is based on the transistor, which was invented by Bell Laboratories in 1947, the research wing of American Telephone and Telegraph (AT&T), a government-permitted monopoly, which enable the company to afford an “expensive laboratory full of Nobel-caliber scientists precisely because it was a monopoly: protected from competitive pricing pressures, assured that no competitor would capture the commercial value of what it invented, and dedicated to the long term” (Fletcher, 2011a, p. 202).

In this regard, the Italian American economist and professor at University College London in Economics of Innovation, Mariana Mazzucato (1968), conducted a thorough study of

⁴¹ Many of the most promising new drugs trace their origins to research done by the taxpayer-funded National Institutes of Health (NIH), which has an annual budget of some \$ 30 billion (Mazzucato, 2015, p. 6), which still fund up to 29% of these industries (H.-J. Chang, 2002, p. 30).

the role of the American government in the birth of many technologies that are now key advantages of huge tech companies such as Apple⁴² and Google⁴³. In her book, *The Entrepreneurial State* (Mazzucato, 2015, p. 27), she details that nearly all the technological revolutions in the past required a massive push by the State as it funded many of the innovations behind the information technology revolution. For instance, the development of the features that make the iPhone what it is today was publicly funded like the Internet (the progenitor of the Internet was ARPANET, a program funded in the 1960s by DARPA), while the touchscreen technology was created by the company Finger Works, which was conceived at the publicly funded University of Delaware, where its creators received grants from both the National Science Foundation and the CIA⁴⁴.

Mazzucato adds that the GPS also began in the 1970s as part of a US military program called NAVSTAR, and that even SIRI, Apple's voice-recognizing personal assistant, can trace its origins to DARPA's artificial-intelligence project. Economist Ian Fletcher (2011a, p. 203) adds that aviation is another example of the dependence of America's most successful industries on industrial policy since the entire 7x7 series of Boeing⁴⁵ planes derives from the 707 launched

⁴² Since 1996, Apple has reportedly claimed \$ 412 million in R & D tax credits of all kinds (Duhigg & Kocieniewski, 2012)

⁴³ Even Google's algorithm, the ultimate better-mousetrap free-market success story, was based on research done by founders Larry Page and Sergey Brin at Stanford while supported by National Science Foundation grant IRI-9411306-4 to research digital libraries (Fletcher, 2011a, p. 203).

⁴⁴ The CIA, alongside the NSA, also sponsored the Massive Digital Data Systems (MDDS) project, which helped launch powerful science and technology companies like Qualcomm, Symantec, Netscape, and others, and funded the pivotal research in areas like Doppler radar and fiber optics, which are central to large companies like AccuWeather, Verizon, and AT&T today (Nesbit, 2017).

⁴⁵ Boeing received \$23.4 billion in government contracts in 2017 from the Pentagon, which makes for roughly a quarter of its net revenues. In fact, Boeing is now the country's second-largest recipient of federal funding after Lockheed Martin, making it more dependent on the public purse than a number of federal agencies. Boeing has long been the single-largest beneficiary of state and local tax breaks, to the tune of \$14 billion. The American public is Boeing's main financier, its safety net, its biggest customer, and its number one advocate (Sammon, 2019).

in the late 1950s, which was the civilian twin of the KC-135 aerial-refueling plane built for the Air Force, and that Boeing actually lost money on its commercial aircraft operations for the first 20 years but it survived thanks to government assistance⁴⁶.

Today, there are currently 42 recognized federally funded research and development centers (FFRDC) that are sponsored by the U.S government throughout the country and the NSF provides nearly 90% of all federal funding for university-based computer-science research (*Master Government List of Federally Funded R&D Centers*, n.d.). Furthermore, and according to the government's Federal Procurement Data System (FPDS), 58 companies received at least \$1 billion worth of government contracts last year, with the top 100 contractors getting over \$262 billion combined, making it quite surprising how dependent some companies are on government spending for their existence (Duprey, 2017).

In that sense, between 1950 and 1995, the US government funding represented around 50% to 70% of the country's total R&D, a figure that is clearly above that of highly active governments such as Japan and South Korea, where this figure was about 20% during the same period. Thus, it is clear that without the government funding and support programs, American companies would have had a much harder time to reach their leading positions in the world markets or might have not survived beyond their early stages, seriously jeopardizing US

⁴⁶ Today, Tesla Motors, Solar City and Space X, all led by entrepreneur Elon Musk, have benefited from \$ 4.9 billion in local, state and federal government support, such as grants, tax breaks, investments in factory construction and subsidized loans. The State also creates the market for their products by contracting \$ 5.5 billion worth of procurement contracts with SpaceX, while Tesla Motors benefitted from a massive publicly funded guaranteed loan of \$ 465 million. All these companies have also benefitted from direct investments in radical technologies by the US Department of Energy, in the case of battery technologies and solar panels, and by NASA, in the case of rocket technologies (Mazzucato, 2015, p. 7).

supremacy in key industries such as computers, semiconductors, life sciences, the internet and aerospace (H.-J. Chang, 2009, p. 55).

The famous Austrian economic historian, journalist and public intellectual, Karl Polanyi (1886-1964), who was also a major critic of the free market sponsored by the Austrian School of Economics, stated that the development of modern market economies was undoubtedly linked to the development of the modern state, as it was needed to enforce and regulate changes in social structure that a coherent system of market relations, which is why he claimed that the separation of the government and the market was an illusion (H. Chang & Grabel, 2005, p. 99). Adding to this logic, Mazzucato (2015, p. 4) argues that the American state has historically been a daring key actor in the creation of wealth and not just an administrator or regulator of that process, willing to take the risks that businesses would not only in what refers to public goods but across the entire innovation chain, from basic research to applied research, commercialization and financing of companies themselves, and thus, creating entirely new markets and sectors.

Despite the fact that there have also been failed public projects and initiatives, such as the American Supersonic Transport project, there is no doubt that the State has been fundamental to shaping markets not only to “fix” them. The government intervention in the American economy did not slow down nor hinder the development of markets and the overall economy, it was actually the other way around, as it opened vast opportunities for local industries and entrepreneurs by creating the conditions for innovation and actively created the essential networks between the State and the private sector that facilitate commercial development (Cohen & De Long, 2016, p. 12).

Hence, it can be said that the U.S government chose to deliberately shift to higher-value industries but also put some effort to pretend, to the world and to the American society, that it was an ardent follower of “laissez-faire” economics and Adam Smith, by letting the invisible hand to handle markets⁴⁷. This attitude was most likely the product of the Cold War and the need to distance the American economy and government from any kind of policy that might resemble that of a centrally planned economic system.

Foreign Direct Investment, Intellectual Property Rights and Banking

As with foreign trade, American foreign direct investment (FDI) policies were also quite nationalist and protectionist since the beginning of the Republic as a series of federal and state laws were enacted to ensure a strong regulation of FDI in order to prevent the loss of control in key sectors of the economy and making sure that an important part of the economy would be in foreign hands in the future. Regarding trade and navigation, in 1791, the congress declared an imposition of differential tonnage duties between national and foreign ships and a navigation monopoly for American ships for trade was established in 1817.

In the finances field, the first bank of the U.S, founded in 1791, declared that only resident shareholders could vote, that only American citizens could become board of directors and that the bank could not be controlled by foreigners, despite the fact that the latter owned 70% of the shares by 1811 (Narula & Lall, 2006, p. 245). In 1864, the National Bank Act was passed indicating that the directors of all national banks had to be Americans, which meant that foreign

⁴⁷ For the great financial rescue of the 2008 crisis, the US government injected 200 billion to bank lending entities, something that could only happen in a socialist country, since this is technically a nationalization of much of the financial sector, something totally contrary to the principles of the free market (H.-J. Chang, 2012, p. 34).

financial institutions could buy shares in US banks but only if they were willing to have Americans as their representatives on the board of directors, conditions that discouraged foreign investments in the banking sector (H.-J. Chang, 2009, p. 93).

In what refers to land and natural resources extraction, many state governments restricted foreign investment and vast acquisitions by non-residents in land, something that by 1885, famous newspapers such as The New York Times “an evil of considerable magnitude”, which is why congress passed the Federal Alien Property Act in 1887 as a way to strictly control or even bad FDI in land, prohibiting the ownership of land by foreigners or by companies with more than 20% of shares in the hands of foreigners.

Many states also instituted their own laws to control FDI in land such as New Hampshire, a state that passed a resolution in 1885 declaring that American soil was for Americans, and that it should be exclusively owned and controlled by American citizens. Moreover, several mining laws during the 1860s and 1870s restricted mining rights to American citizens and companies, while in 1878, a timber law was instituted, declaring that only American residents could get involved in the logging business on public land (Narula & Lall, 2006, p. 246).

By the late-19th century and early-20th century, states like New York would continue to show a hostile attitude towards FDI, especially in the financial sector, where the state was growing and positioning as a global leader, as the state passed a law that banned foreign banks from establishing bank branches. Moreover, many states often taxed foreign companies more heavily than American ones, and some even took more extreme measures such as Indiana, which passed a law in 1887 that withdrew court protection to foreign companies operating in the state. Despite the hostile environment towards FDI, the U.S was the largest receptor of foreign investments during the 19th century and early-20th century, a fact that puts in doubt the modern

theory stating that strong FDI regulations reduce investments in a country (H.-J. Chang, 2009, p. 94).

In what concerns to Intellectual Property Rights, the American political scientist and professor of International Studies at Brown University, Peter Andreas (2014, pp. 7, 12, 98, 99), published a book titled *Smuggler Nation: How illicit trade made America* (2014), where he explains how America's early industrial revolution was made possible by the illicit acquisition of machines and machinists, especially from Britain. Even from early times, even Alexander Hamilton enthusiastically encouraged intellectual piracy and technology smuggling, which was also accompanied by the illicit importation of skilled workers to assemble, operate, and improve on the latest machinery. These activities were in clear violation of British export and emigration laws and were encouraged and celebrated as essential to building the new nation and reducing its dependence on the old colonial masters.

Andreas (2014, p. 103) adds that the U.S Patent Act of 1793 did not protect foreign inventors as they were not able to patent an invention in the U.S that they had previously patented in Europe and patents were granted without any proof of originality until 1836. This really meant that Americans could steal a foreign invention, smuggle it to the United States, and develop it for domestic commercial applications, which allowed many importers of European technology to claim exclusive rights to imported innovations and use the courts to validate their claims and intimidate competitors. Thus, and through its discriminatory patent rules, America became the world's most notorious heaven for industrial and international copyright piracy.

American copyright law did not protect most of the works of foreign authors until 1891, which is why the British novelist Wilkie Collins (1824-1889) strongly accused the Americans of making "robbery" into "the basis of national aggrandizement and even Charles Dickens (1812-

1870) was unable to collect royalties on US sales of his best-selling novels (Cohen & De Long, 2016, p. 106). The U.S would become a strong advocate for the protection of IPR's much later, once it was a major industrial and technological power. However, it is now conveniently forgotten that Americans industries systematically stole from the British as part of the nation's early industrialization strategy, which means that the country aggressively engaged in the kind of intellectual property theft it now insists other countries should not follow (Andreas, 2014, p. 98).

Finally, and regarding banking and finances, shortly after the independence, Alexander Hamilton recognized the importance of the banking sector for the economy, although by that time there was still much to learn about the complexities of the financial sector, mainly because it was still incipient if compared to modern times. However, the dichotomy between strong and lax regulations for the banking sector was already present, as forces such as the desire for greater financial stability, more economic freedom, or fear of the concentration of too much power in too few hands, were factors that usually influenced policy towards one side or the other. In that sense, this sector of the economy was not heavily regulated or intervened by the government such as in the case of trade and industries, since from 1830 until the 1860s, an era of free banking was instituted with complete lack of federal control and regulation. Nonetheless, this period suffered from disorder, financial instability and several banking crises, which is why the free banking era came to an end in 1863 with the Banking Act, a measure that increased regulation due to the necessity to strengthen centralized control to maintain stability in the sector and its effects on the economy as a whole.

President Woodrow Wilson would promote the Federal Reserve Act in 1913 to increase control of the country's finances and after the Great Depression, President Roosevelt would further increase the levels of banking regulation (Johnston, 2019). By this time, it was clear that

excessive financial deregulation not only increased the volatility of the financial sector but also created conflicts of interest and cases of fraud that severely affected the economy, the government and the depositors. As a consequence, the government instituted the Federal Deposit Insurance Corporation (FDIC), which regulated deposit interest rates, the securities & Exchange Commission, and the Glass-Steagall Act of 1933, which separated commercial from investment banking⁴⁸. Additionally, the Banking Act of 1935 served to strengthen and give the Federal Reserve more centralized power. These policies would pave the way for the regulatory capitalism that emerged in the latter half of the 20th century throughout the industrialized world (Martinez, 2009, p. 188).

Infrastructure and Social Safety Nets

A still backward U.S during the first half of the 19th century was in a clear need for the development and extension of critical infrastructure, something that was perceived as a priority by the federal government, which is why it played a crucial role in promoting public and private subsidized construction and maintenance of transportation infrastructure such as canals and railroads, especially through the granting of land and subsidies to railway companies. This was fundamental first step in shaping the country's developmental path. The Homestead Act of 1862 included the federal subsidy to the construction of continent-crossing railroads and the creation of the Army Corps of Engineers, an institution responsible for building much of the infrastructure in rural areas.

⁴⁸ The Securities and Exchange Commission, the Glass-Steagall Act, and the Federal Deposit Insurance Corporation (FDIC) were created after it was learned that market players have designed, created and pursued market activities that were secretive, morally bankrupt and destructive to the integrity of the market (Martinez, 2009, p. 132).

At the same time, the first attempts to boost the creation of a middle-class started to translate into concrete policies. The Homestead Act also provided 160 acres of free public land to settlers who worked the land for at least 5 years (Martinez, 2009, p. 128). This policy was an alternative to that that was often used in other countries, and that now might seem as the normal way to distribute public assets, auctions. The problem with this method is that it would most likely have resulted in a social structure similar to those seen in Latin America, with great masses of landless agricultural laborers controlled by a few wealthy landowners (Cohen & De Long, 2016, p. 29). This was important because the U.S was still predominantly a rural society by 1880, with 50% of the population employed in agriculture, fisheries and forestry, and also why the government support through budget deficits, subsidies and financing helped build the infrastructure critical to expand industrial activities⁴⁹ and labor in railroads, manufacturing, coal, baking, iron, steel and real estate (Martinez, 2009, p. 129).

As a result, during the Gilded Age (the era between the end of the civil war and the early 20th century), there was rapid growth⁵⁰, a marked dominance of the government by business interests and massive fortunes were amassed by many industrialists who it is said to have made America, e.g. John D. Rockefeller, Andrew Carnegie, Cornelius Vanderbilt, J.P Morgan, Henry Ford and Thomas Edison. However, the institution of social safety nets and other welfare policies were still practically inexistent and during this era, economic inequality reached

⁴⁹ In 1885, in order to favor local employment, the Contract Labor Law was enacted, prohibiting the import of foreign workers in manufacturing, a measure that affected foreign firms and workers (Narula & Lall, 2006, p. 65).

⁵⁰ Capital investment in manufacturing increased tenfold and the number of wage earners nearly fivefold.

Technological advances in turn drastically increased productivity. For instance, between 1865 and the end of the century, wheat production went up by 256%, sugar by 460%, corn 222% and coal 800%. During this same period, exports rose from \$281 million to \$ 1.231 billion and imports increased from \$ 239 million to \$616 million (Palen, 2016, p. XXVII).

unprecedented levels, with 12% of American families concentrating 86% of the nation's wealth by 1890⁵¹ (Madland, 2015, p. 69). Thus, at that time, regular American citizens did not expect much from the federal government in terms of income redistribution and reduction of inequality since the role of the government until then had been mostly focused on managing the military, foreign policy, land, treasury, infrastructure, industrial policy and tariffs (Christensen et al., 2019, p. 105).

This would start to change when President Theodore Roosevelt (1858-1919) took office in 1901, as he openly criticized the fact that giant corporations or trusts had too much control over the government and the markets rather than being the other way around, which is why he passed antitrust laws to regulate “natural monopolies” and to break up the unnatural ones such as Rockefeller's Standard Oil. Roosevelt even passed a constitutional amendment aiming to establish incomes taxes⁵² to reduce the huge concentrations of wealth that characterized the Gilded Age (Cohen & De Long, 2016, p. 11).

These policies were, surprisingly, in accordance with the teachings of Adam Smith, who considered the taxation of wealth as necessary as he explicitly and repeatedly stated that the true measure of a nation's wealth is not the size of its king's treasury or the holdings of an affluent few but rather the wages of “the laboring poor.” Smith also claimed that the “disposition to

⁵¹ Bill Gates would later argue that government has a legitimate claim to tax the accumulated fortunes of those who benefited most from the system and that the wealthy must support state institutions that foster great wealth creation (Martinez, 2009, p. 71).

⁵² Even Adam Smith argued that taxes should be proportional to how much a person benefits from living in society. There should be proportionality across levels of income and sources of income such as rent, profit, and wages. Smith mentioned how having some taxes fall disproportionately on the wealthy, such as taxes on luxuries, is not so bad. But he stresses proportionality as the general principle: “The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the state.” (Mueller, 2016).

admire, and almost to worship, the rich and the powerful, and to despise, or, at least, to neglect persons of poor and mean condition” is “the great and most universal cause of the corruption of our moral sentiments” (Rasmussen, 2016).

As a result of the implementation of progressive policies such as the antitrust laws to campaign finance regulations, popular election of senators, directed referendums, wages increases⁵³ and a progressive income tax, reduced the influence of the wealthy in politics and the economy, and ended the Gilded Age. Consequently, economic growth was even faster right after the Gilded Age, as the public gained political influence and economic participation (Madland, 2015, p. 71).

Notwithstanding the progress made to foster social welfare, the provisions and policies to strengthen social safety nets would not be boosted until the Great Depression and the implementation of President’s Franklin D. Roosevelt New Deal in 1933. The new program included the formation of several government agencies, laws and policies aimed at recovering economic dynamism and provided financial stability and employment to regular American workers. Shortly after taking office in 1933, Roosevelt would sponsor the establishment of initiatives such as the Civil Works Administration (CWA) designed to provide purely temporary job opportunities to unemployed workers; Civilian Conservation Corps (CCC), which provided employment in government camps for about 3 million young men, many of whom might otherwise have been driven by desperation into criminal habits; Federal Emergency Relief Act, a

⁵³ Ford decided to raise the wages of its employers as a strategic measure, as he recognized the need for a base of consumers with growing incomes who could afford his cars. As he explained: “the people who consume the bulk of goods are the people who make them, that is a fact we must never forget, that is the secret of our prosperity”. Indeed, after raising wages, Ford nearly double car sales in just 2 years and significantly increased profits (Madland, 2015, p. 111).

grant-making agency authorized to distribute federal aid to the states for relief, which in just a couple of years would have distributed over \$3.1 billion and employed more than 20 million people; Agricultural Adjustment Act (AAA), which made available many millions of dollars to help farmers pay their mortgages; and the Homeowners' Loan Corporation (HOLC), designed to refinance mortgages on nonfarm homes (Kennedy et al., 2012, p. 776).

In 1933, the Congress also authorized the creation of another federal relief agency, the Public Works Administration (PWA), designed for industrial recovery and unemployment relief. Roosevelt was aware that nearly one-third of the nation's unemployed were in the construction industry, so the PWA would spend \$4 billion in more than 34,000 projects for public buildings, highways, dams, sewer systems, waterworks, schools, hospitals, parkways and other public facilities. A remarkable achievement of the PWA was the Grand Coulee Dam (the largest structure erected by humans since the Great Wall of China) and the famous Hoover Dam (Appleby et al., 2006, p. 504). In 1934, the Federal Housing Administration was established, aiming to further stimulate the construction industry by providing small loans to householders, both for improving their dwellings and for completing new ones, and in 1937, the program would be upgraded to the U.S Housing Authority (USHA), designed to lend money to states and cities for low-cost construction projects (Kennedy et al., 2012, p. 788).

In 1935, one of the most ambitious welfare programs in U.S history would be instituted, the Social Security Act, created to provide a retirement insurance program, an unemployment compensation system, and aid to the disabled and families with dependent children, a policy that was financed by a payroll tax on employers and employees, which had a major impact on the lives of millions of Americans. Additionally, other initiatives such as the Wagner Act (1935) and the Fair Labor Standards Act (1938), abolished child labor, set standards for wages and 40-hour

workweek, provided more protection for the workers and gave them the right to organize and to form union to bargain collectively with their employers.

The Farm Security Administration was created in 1937 to give loans to farmers so they could purchase farms, giving away around \$1 billion in loans until 1941. (Danzer & McDougal Littell, 2007, p. 724). During this time, the government taxed and spent significantly, redirecting money flows through the economy at a level much greater than any other period of peace. The New Deal showed that social insurance could be effectively provided through a combination of enterprise practices and regulated sectors, and that the extension of social safety nets, far away from slowing down or reducing the productivity of markets, legitimized the market economy by making it compatible with social stability and cohesion⁵⁴ (Rodrik, 2009, p. 160). In that sense, F.D Roosevelt implemented a regulatory framework for the markets to make sure that these worked for the prosperity of the society as a whole, and not just for those at the top, protecting the citizens that resulted least favored or more affected by the complexities of the market.

After WWII, social safety nets would continue to be expanded by the following administrations with progressive tax policies, social programs, preemptive regulation for industry, stable money policies, and legislation that was labor-friendly and consumer-friendly. The 1944 G.I Bill for higher education, which also gave job and housing opportunities to the thousands of veterans returning from the front, expanded educational opportunities for millions of middle-class Americans during the 1950s. President Harry Truman's (1884-1972) Fair Deal

⁵⁴ Civicness is built upon a foundation of economic equality. Studies show that countries with lower levels of economic inequality are more civic, with higher levels of participation in politics and civic organization, which makes the society more effective in keeping accountable governments (Madland, 2015, p. 82).

would call for the expansion of social security, wages and public housing legislation, as well as the establishment of the Fair Employment Practices Act that was designed to prevent racial, religious and gender discrimination in hiring (Encyclopedia Britannica, n.d.-d).

President Dwight D. Eisenhower (1890-1969) would continue the same line, increasing the funding of state universities, establish the Department of Health and Human Services in 1953, protecting farmers from its foreign competitors with subsidies, increasing housing legislations, and expanding the highways infrastructure of the country. On this latter topic, Eisenhower was concerned about the poor quality of America's roads and was also impressed by the high-quality German highways (Autobahns) he saw during his time in Europe. Therefore, in 1956, he signed the Federal-Aid Highway Act, which would build 41,000 miles interstate highways, a project that was considered the largest public works program in American history at that time (*Congress Approves the Federal-Aid Highway Act, 1956*). The massive support for housing and highways infrastructure promoted a nation of homeowners and enabled an unprecedented level of suburbanization, reconfiguring the economy as well as the physical and social landscape of the country (Cohen & De Long, 2016, p. 14).

The subsequent administrations will follow the same trend. For instance, in 1965, President Lyndon B. Johnson (1908-1973), proclaimed his vision of a "Great Society", committing to redouble the "war on poverty" originally planned by JFK, through an enormous program of social welfare legislation, including federal support for education, expanded Social Security program, and continued enforcement of the Civil Rights Act (1964), and the foundation of Medicare and Medicaid in 1965 (Encyclopedia Britannica, 2020). Moreover, governments throughout the 1960s and 1970s would increase the government-sponsored student aid and loan packages, and established the Department of Housing and Urban Development (1965),

Transportation (1967), Energy (1977) and Education (1979), agencies that were the result of the public outcry and were designed to manage the increasing complexities of an increasing and buoyant market (Christensen et al., 2019, p. 106).

As a result of all these policies, government efforts as well as due to the global economic and political hegemony of the U.S, the standard of living of regular Americans improved dramatically after WWII, as the country built a middle-class that was the envy of the world, with incomes continuously rising and low levels of inequality. The strong social safety nets implemented by the state meant that Americans had more disposable income for consumption, investments and leisure. In that sense, real income for families climbed by 30% between 1952 and 1960 and jumped by another 30% between 1960 and 1968, whereas growth in family income from 1947 through 1979 grew at roughly the same pace for each quintile group in America at the same time that the share of household wealth for the top 1% dropped from 44.2% to just over 20% by mid-1970s (Martinez, 2009, p. 134), an scenario that the Nobel Economist Paul Krugman (1953) describes as an unprecedented era of prosperity without extremes wealth or poverty (Madland, 2015, p. 13).

Additionally, American writer and professor at the Lyndon B. Johnson School of Public Affairs at the University of Texas at Austin, Michael Lind (1962), argues that the creation and maintenance of America's middle class or what he refers as the social wage, is the direct result of state-sponsored social engineering on a colossal scale (Lind, 2004). Hence, it can be said that this great social engineering project of prosperity (a project that the private sector nor the invisible hand by themselves could not have been able to provide on their own) was possible thanks to a series of state-led initiatives that are an exceptional example of what it is now called as "Big government".

It is undeniable that no country had experienced rapid economic growth without following basic economic governance principals and market orientation, but it is also clear that these principles have been implemented and achieved through policies that are a far cry from “laissez-faire” economics and Adam Smith’s invisible hand. In the spirit of Karl Polanyi, who argued that the notion of the self-regulating market was a myth absolutely unsupported by history and that the path to a free market was opened and kept open by an enormous increase in continuous, organized and controlled interventionism, the U.S government effectively created the crucial infrastructure for modern economies, invested in public education and created the national and international regulatory framework needed for the smooth functioning of the system (Mazzucato, 2015, p. 36).

In addition to the consolidation of efficient markets, America’s social wage protected its middle class from the effects of cyclical recessions, competition and poor economic decisions by giving it stability through strengthening job security, increasing wages, improving labor conditions, increasing social benefits and provisions of both public and merit goods⁵⁵, managing to compress the wealth and income gap that is a characteristic of capitalist societies but that can have perverse effects on the society’s well-being if grows out of control like just before the Great Depression and during the Gilded Age (Martinez, 2009, p. 131).

⁵⁵ Public goods include defense, public order, and justice, while merit goods includes health, education, and other services that could have been provided privately (Fiorito & Kollintzas, 2004).

CHAPTER 5- OTHER DEVELOPMENT CASES: SUCCESSFUL EMULATORS OF THE ANGLO-AMERICAN EXPERIENCE

The U.S was not the only nation that was tempted by the British to adopt free trade and “laissez faire” practices. Many of the now developed nations found themselves in a similar situation to that of the “British-American dynamic”, having to choose between following Cobden’s, Smith’s and Ricardo’s theories or emulate the British (and later, the American) industrialization paths and adhere to the preaching of Hamilton and List. Not surprisingly, virtually all of today’s advanced nations actively used interventionists and protectionist industrial, trade and technology policies such as subsidies, duty drawbacks, exports incentives, public investment programs, financial support for R&D, foreign tech acquisition (both by legal and illegal means) and the creation of institutions that favored and strengthened markets and the social wage in order to catch-up with more wealthy and industrialized nations (Kohli, 2004, p. 18). This chapter will briefly analyze some of the other nations that followed the American development experience and rejected the British recommendations.

France

Decided to move France out of backwardness and compete with the British, the Great Sun King, Louis XIV (1638-1715) looked to the famous statesman Jean Baptiste Colbert (1619-1683) to develop a national strategy for these purposes. Colbert subsidized and protected infant industries through raising tariffs with the aim of protecting the nation’s labor-intensive activities subject to increasing returns from foreign competition, and also developed critical infrastructure which united the country. Colbert policies were successful and brought prosperity to France, which is why he was known in Europe as “The Great Colbert”. In that sense, throughout the 18th

century, the French state would keep its nationalist approach and encouraged industrial espionage on foreign nations and was firmly decided to catch up with the British (Reinert, 2008, p. 90 ;Martinez, 2009, p. 123).

During the first part of the 19th century, the French state would actively encourage further infrastructural development, established several institutions aiming to foster R&D and education, and also set to modernize the banking sector. However, French attitude towards economic policy would begin to change during the time of the Third Republic (1870-1940), as it took a more “laissez-faire” approach, liberalizing trade (French trade regime was more liberal than that of Britain or the U.S throughout most of the 19th century), restricting the government role and budget to general administration, law and order, and transport, regarded as the classic areas of involvement of the minimal state (H.-J. Chang, 2002, p. 37).

It was not until after WWII, and the humiliation suffered in hands of the Germans, an event that convinced French policymakers and elites that the long tradition of hand-off policies were in part the cause for the French economic decline and the country’s relative backwardness in comparison to its war allies and adversaries such as the U.S, Britain, Germany, Japan and the Soviet Union. Therefore, the French state would take a more active role in the economy after the war, following an approach known as “Dirigisme” (French word for “to direct”) in order to promote industrialization and protect national industries from foreign competition.

This strategy took the form of indicative planning (contrary to compulsory planning in communist states), which entailed government credit policies and subsidies into strategic industries, developing new technologies, nationalization of key industries, increasing role of state banks, encouraging the formation of large industry groups, high industrial tariffs levels until the 1970s, as well as the regulation of employment and strengthening of social safety nets against

potential market failures. The French state would also create an elite university for public administration for the education of future state planners, the *École Nationale d'Administration* (R. Chen, n.d.).

France also developed a large sector of state-owned enterprises, many of which became successful leaders in their field such as Renault, Alcatel, Usinor, Thomson and Thales, and would be subsequently privatized during the 1980s. In this way, by the 1980s, France witnessed a very successful structural transformation of its economy and recovered much of its old days of glory, and transformed into a technological leader in many industries (H.-J. Chang, 2002, p. 38).

Germany

In 1740, when king Frederick The Great (1712-1786) came to power in the German state of Prussia, the state was a raw-materials exporter, which is why he embarked into the diversification of the local industries such as textiles, metals, armaments, porcelain and silk, through the promotion of trade protection, monopoly rights, public investments and attraction of foreign-skilled workers. Throughout the 19th century, Prussia would keep making public investments in technical education, infrastructures such as roads and railways and key industries (Skidelsky, 2019, p. 90).

After 1840, the German state would reduce its involvement in the economy and reduce its levels of tariff protection, but that did not mean that the state adopted a “laissez-faire” approach, switching from a more directive role to a guiding one, as it kept promoting innovation through the grant of subsidies for universities and R&D, monopoly grants and cheap supplies for industries. In 1820, the Department of Trade and Industry, established the famous Craft Institute to train skilled workers, subsidized foreign trips to gather information on new tech, collected

foreign machinery for copying and provided support for business startups, especially in machinery, the steam engine and locomotive industries.

The German state would be a pioneer of modern social policy (H.-J. Chang, 2002, p. 35). After the official German unification of 1871, German policymakers and leaders such as Bismarck, would become convinced followers of List's teachings as the state kept working closely with industrialists, raised tariff protection once again to boost industries such as machine building, construction, heavy industry, electrical engineering, chemical engineering, precision mechanics and optics (Skidelsky, 2019, p. 92). During this time, many German industrialists introduced and copied advanced technologies from other nations, especially Britain by means of a combination of state supported industrial espionage and the poaching of skilled workers.

The government would also sponsor the financing of more roads and railways, and a successful educational reform that not only expanded the necessary infrastructure but also reoriented the focus of school and universities from humanities to science and tech. In this way, by the beginning of the 20th century, Germany was able to build in half a century a financial, commercial and industrial power that took the British over 2 centuries to develop (Skidelsky, 2019, p. 92)(H.-J. Chang, 2002, p. 34).

After WWII, West Germany's approach towards reconstruction would be based on reindustrialization and a government system known as "Ordoliberalism" or the vision for a social market economy, an ideology that still prevails in Germany. Although this doctrine seeks the promotion of markets, the non-state intervention on prices and production, and competition as means to guarantee political liberty and superior economic performance, it is not simply based on "laissez-faire" principles. Ordoliberals advocate for a vital role of the government in ensuring that markets stay close to some notion of an ideal market, believing that without a strong

government powerful private interests would undermine competition, while also considering that there is nothing inconsistent about a commitment to competitive markets combined with a system of subsidies and transfer payments to take care of the less fortunate and less able (Wren-Lewis, 2014).

Nonetheless, this pro-market approach did not mean that West Germany would detach itself from industry protection and promotion. Moreover, both Germany and France did not need much FDI regulations before WWII, as they were the ones making FDI abroad rather than receiving it. But after WWII, when they started to receive FDI from American and Japanese companies, they also enacted a series of measures to restrict and control FDI flows and imposed performance requirements (H.-J. Chang, 2009, p. 95).

Other cases: Sweden, Canada, Switzerland and Australia

Sweden. In 1816, the Swedish government passed a highly protectionist tariff law in order to protect and promote its local industries, banning the imports and exports of certain items, a policy that would remain throughout most of the 19th century and would be strengthened in 1892. By 1913, Swedish average tariffs on manufactured goods was among the highest in Europe and the state implemented a strong combination of subsidies and support for R&D in order to boost innovation.

In 1860, compulsory education was introduced, and the government established several research institutes, providing industries with direct funding as well. During that time, the government also promoted public-private partnerships for the construction of critical infrastructure such as railways, telegraphs, telephones and hydroelectric plants. The strategy did pay off, as Sweden was the fastest growing economy between 1900 and 1913.

In the following decades, the Swedish government made great efforts to foster the acquisition of foreign technology and their subsequent reverse engineering. This long-term support by the government in the infrastructural industries was key in making world-class companies like Ericsson, Volvo, Nokia and ABB. The Swedish economy performed extremely well under the belief that a conscious state-driven shift towards high value-added industries was fundamental for the nation's prosperity in the long term, and that if it was left to market forces by themselves, the shift might not happen at the desirable rate or not even happen at all. Hence, during the rest of the 20th century, as it was the 2nd fastest growing of the 16 major industrial economies in terms of GDP per work-hour between 1890 and 1990, after Finland (H.-J. Chang, 2002, p. 40,41).

Canada. List theories were also taken seriously in Canada, even when it was always linked to British domain. The first coherent Canadian system of protection was established in 1878, after the Prime Minister of the Dominion of Canada, Sir John A. Macdonald (1815-1891), and a Listian follower, promoted a policy of economic nationalism designed to protect Canadian businesses against competition from more competitive American firms (Dales, 2015). Many Canadian infant industries were against the idea of a North American Commercial Union in the late-19th century and remained unconvinced by the American calls for trade reciprocity, and there was a strong "Canada for Canadians" movement at the time. Canadians ought and achieved the inclusion of an amendment that protected the country's infant industries in a way that free trade with the U.S did not conflict with the policy of fostering industrialization of Canada. As a matter of fact, Sir John Macdonald wrote in a letter to a fellow Canadian official: "Our manufactures are too young and weak yet ... they would be crushed out just now" (Palen, 2016, p. 167).

During the late-190th and early 20th centuries, Canada developed a robust manufacturing sector, and sought to transform its huge amount of natural resources it had (and still has) into high-tech products such as paper, cloth, steel, chemicals and automobiles, at the same time that it expanded its infrastructure and began producing new commodities like hydroelectricity, oil and natural gas (*The Economy of Canada*, n.d.).

Switzerland. Switzerland had always been among the wealthiest countries in the world, and even though it was never as protectionist as the U.S or Britain, it also used many of the industrial tools implemented by other industrialized nations. Having virtually no natural resources to exploit, the Swiss manufacturing industry sought diversification of the economy towards high-tech goods and advanced services such as banking. In this regard, the government actually made a conscious decision to focus efforts and institute policies that promoted the positioning of Switzerland as a global financial center (Martinez, 2009, p. 33). Nonetheless, and following the emulation strategy, Switzerland was one of Europe's earliest industrializers, achieving its industrial revolution shortly after the British.

By 1850, it was one of the industrial leaders in different industries such as textiles, where it was even stronger than the British. Thus, infant industry protection was not vital for the economy. However, the Swiss became technological leaders without a patent law, as they did not protect foreign patents until 1907, much after the other industrialized nations. This disregard from the Swiss government for the protection of foreign patents and inventions was an important contributor to the development of a number of industries, especially the pharmaceutical and chemical ones, where the Swiss significantly benefited from copying German inventions and achievements (H.-J. Chang, 2002, p. 46).

Australia and New Zealand. Despite having vast quantities of valuable natural resources and even absolute comparative advantages in commodities such as gold, silver, copper, nickel, iron and coal, Australia also decided to challenge Ricardo's theory and emulate the development strategies of its mother country, Britain, and the U.S. Therefore, after the British Parliament enabled the 6 Australian colonies to join and collectively govern in their own right and formed the Commonwealth of Australia in 1901, the new federal government decided to set up industrialization policies and moved through a series of stages of periodic increases in manufacturing protection that would last until the 1970s, when it began to liberalize its trade (by then Australia would already have become a competitive industrial nation).

Shortly after the creation of the federation, the government passed the Lyne Tariff in 1901, which was a solid protectionist stance towards manufacturing and the first effective tariff instituted by the federal government, doubling the duties that were in place until then. Australian protectionists would continue to use the American McKinley Tariffs as well as Henry Carey's writings and Friedrich List's teachings to defend the need to maintain sound protectionist policies to increase domestic productivity and wages (Palen, 2016, p. 222).

The industrial expansion of key industries such as automobiles, heavy machinery, chemicals, electronic equipment and iron-steel, was accompanied by an enormous government support for the development of transportation, communication and urban infrastructure, and an increase in government regulation in the economy (*Development of manufacturing industries in Australia*, 2012).

New Zealand would follow a very similar path to that of Australia, and alongside it, they would both have one of the highest manufacturing tariffs among the advanced nations

during an important part of the 20th century. Both nations' protectionist policies would even discriminate against British manufactured goods, despite knowing that they sector would be less efficient than those of the leading industrial nations such as the U.S (Reinert, 2008, p. 109).

Japan: The Flying-Geese Leader

After being a hermetic country to outsiders for generations, a backward and poor Japan was forced to open its trade and economy to the modern world in 1853, after the U.S East India Fleet, led by Commodore Matthew Perry (1794-1858) arrived in the bay of Tokyo and demanded trading rights to the Japanese, who did not have another option but to comply due to their economic, military and industrial backwardness in comparison to the Americans and other western nations (Fletcher, 2011a, p. 145).

In 1858, the first Treaty of Amity and Commerce was signed with the United States, which was followed by similar asymmetrical trade treaties with The Netherlands, Russia, the U.K and France. The Japanese were forced to reduce its average tariff rate to 5%, a drastic measure that seriously affected the national economy (*History of Japan Customs*, n.d.). By being deprived of adopting trade protection, the Japanese government had to use other type of measures in order to promote industrialization.

After the Meji Restoration of 1868, the new rulers acknowledge the critical importance to advance in economic, industrial and technological sophistication in order to be able to defend its interests as a strong independent nation, which is why the government quickly adopted western technology after a series of mission to Europe and the U.S in the 1870's, established the Ministry of Education in 1871 with the vision for a new education system, sending students to

western nations and focusing on the teaching of science, technology and foreign languages. The country would achieve 100% literacy rate by the turn of the century.

The government used the earnings from the export of cheap cloth, toys and other labor-intensive products to afford for the import of vast quantities of machinery, transport equipment and other capital goods from western nations. A large sector of state-owned enterprises was also established in industries such as mining, textiles, machinery and shipbuilding. At the same time, private companies also received large state subsidies and the government hired many foreign technical and policy advisers. Moreover, the state heavily subsidized national infrastructure development by building roads and supporting private companies in the railways and telegraph sector.

The Japanese government also tried to emulate the western institutions that it saw as necessary for industrial and economic development such as the French criminal law, the German commercial law and army model, the British navy model, as well as the American banking and universities system (Stiglitz & Charlton, 2005, p. 12)(H.-J. Chang, 2002, p. 47,48). It was not until 1911 that Japan recovered tariff autonomy and immediately began to raise tariff in order to protect its industries, and by 1913, it had become into one of the most protectionist countries in the world, but even Japan fell short in comparison to the greatest protectionist nation, the U.S (*History of Japan Customs*, n.d.). As a result of the government's incentives for companies to engage in high value-added industries, the legendary Toyota company, which started as a textile company, moved into car production in 1933, and the government kicked both General Motors and Ford out of the country in 1939 (Martinez, 2009, p. 157). Japan would only continue to grow until becoming an industrial, economic and military muscle by the start of WWII.

After the war, the prospects about the potential recovery of Japan were not optimistic at all since almost half of the country's capital stock were destroyed. American analysts saw it as unlikely, and even the U.S Secretary of State, John Foster Dulles (1888-1959) declared that the Japanese should not expect to find a big market in the U.S as they did not make any things that the Americans want (Martinez, 2009, p. 141,157). In 1955, when the U.S and Japan were negotiating a trade agreement, the chief of the American delegation, C. Thayer White, expressed the American desire for Japan to drop its tariffs for American manufactures, especially cars, and argued that Japan should focus on sectors where it had a comparative advantage such as fishing. Nonetheless, the Japanese trade negotiator, Kenichi Otabe, refused to follow the American advice arguing that each government encourages and protects those industries which it believes important for reasons of national policy (Fletcher & Ferry, 2011).

Following the spirit of Hamilton and List teachings, the famous Japanese Ministry of International Trade and Industry (MITI) designed and implemented one of the most successful development programs in modern history. Industrial tariffs were not very high after WWII, but imports were tightly restricted through government control over foreign exchange rates, exports were promoted in order to maximize the supply of foreign currency needed for the importation of new affordable technology in order to boost the domestic industries. In addition, the Japan External Trade Organization (JETRO) began to provide direct and indirect export subsidies and credits into key industrial sectors, as well as information and marketing support for exporting companies (H.-J. Chang, 2009, p. 59).

The MITI also created a synergy between the government and the private sector (suppliers, manufactures, distributors and banks) forming groups called "Keiretsu", aiming to change the structure of the Japanese economy towards high-tech and high-quality products

designed for domestic and foreign consumption, while the government also rigged the country's banking system and stocks to provide its industries with cheap capital ("Japan Economic Transformation," n.d.).

The Japanese government would implement even more restrictive measures than those implemented in the U.S in what refers to FDI. Japan closed its markets to FDI in key industries and only welcomed those that could help to upgrade the local industries and many foreign companies were required to transfer technology and buy at least specified proportions of their inputs from local providers. The maximum foreign ownership in terms of shares for many companies was set at 49%. As a result, Japan received the lowest level of FDI from the now advanced nations, and only began to liberalize its trade and FDI regimes when the local industries were competitive enough (H.-J. Chang, 2009, p. 59,95).

Regarding the now famous Japanese auto industry, the Government bailed out a destroyed Toyota company with money from the central bank in 1949 and decided to bet in favor of the development of a Japanese automobile industry, despite the fact that most people at that time thought that a Japanese car industry was highly unlikely and should not even exist. During the first decades after the war, the label "Made in Japan" was regarded as something of doubtful quality (Martinez, 2009, p. 141,157). Nonetheless, Tokyo decided to keep protecting its automobile industry in the 1950s and 1960s, limiting imports to US\$ 500,000 per year and by placing prohibitive tariffs against the import of foreign cars. Back then, Japanese car makers were known mainly for their habit of ripping off designs from other nations. For instance, Toyota's first passenger car, the 1936 Model AA, was a total copy of Dodge and Chevrolet designs. Japanese car makers systematically borrowed the best ideas from each of these countries, while simultaneously addressing their weaknesses such as replacing Britain's flaky

electrical systems with solid, well-engineered products, studying Germany's superb mechanical designs and installed them in cars that the average consumer could afford, and borrowing the best parts of American marketing.

Today, Japanese cars quality is totally out of question and the country it produces over two-and-a-half times as many cars as the U.S., mostly for export (Cheney, 2018). By the 1980's, far from being a nation of fishing villages, the Japanese miracle would become one of the most famous paradigms in economic development, as the country became a leader in different heavy industries and those related to advanced electronic products, automobiles, computers, semiconductors, iron and steel, petrochemicals, pharmaceuticals, bioindustry, shipbuilding, aerospace and consumer goods. The government also implemented measures such as the Income Doubling Plan of 1960, to reaffirm its commitment and responsibility for social welfare⁵⁶ and merit goods ("Japan Economic Transformation," n.d.).

Consequently, from 1960 to 1973, the Japanese economy sustained a 10% per year average growth rate, quadrupling the economy in a short sprint and raising GDP per capita from 25% that of America to 57%. From 1973 to 1990, GDP grew at an average rate of 4.5%, doubling the economy and bringing Japanese per capita GDP up to 78% of America's. Moreover, from 1952, when the American occupation ended, until 1991, Japan's real GNP grew

⁵⁶ Welfare state institutions cannot survive without a productive economy behind them that generates the profits and tax receipts that can fund such entitlements. While progressive redistributive policies are fundamental to ensure a fair economy, they do not in themselves cause growth. Inequality can hurt growth, but equality does not alone foster it. What has been missing from much of the Keynesian left is a growth agenda which creates and simultaneously redistributes the riches. Bringing together the lessons of Keynes and Schumpeter can help make this happen (Mazzucato, 2015, p. 37).

at an average rate of 6.8% per year (Cohen & De Long, 2016, p. 129);“Japan Economic Transformation,” n.d.).

Fletcher (Fletcher & Ferry, 2011), states that protectionism runs very deep in the Japanese political and economic system as no one in Japan of any standing in business, government, or academy believes that Japan’s success has been due to free trade. He reminds the words of economic historian Kozo Yamamura (1934-2017):

“Protection from foreign competition was probably the most important incentive to domestic development that the Japanese government provided. The stronger the home market cushion...the smaller the risk and the more likely the Japanese competitor was to increase capacity (...) This can give the firm a strategic as well as a cost advantage over a foreign competitor”.

South Korea

One of the most authorized voices to assess the economic miracles of South Korea is the already introduced Korean economist, Haa-Joon Chang, who, through a series of books (Chang, 2002, 2005, 2009, 2012,), describes how the South Korean miracles that is often related to the benefits of free trade and globalization, had actually little to do with “laissez-faire”, Ricardian and Smithian economics. After the Korean War (1950-1953), the country’s infrastructure was devastated and the society severely damaged due to the great amount of deaths and injured. At that time, South Korea was one of the poorest nations in the world, the per capita income was less than US\$100, on par with some of the most impoverished nations of sub-Saharan Africa and way below the income levels of Latin American nations.

The country was significantly resource-poor, with hardly any mineral abundance or other kind of valuable natural resources, and in the 1950s, USAID describe the country as a “bottomless pit” due to the ineptitude of its economic administration (Oh, 2010). In that sense, Chang (2009, p. 7, 8) explains that, after the 1961 coup led by General Park Chung-Hee (1917-1979), the government launched the country’s economic miracle through its 5-year plans, implementing an ambitious industrialization program in 1973, setting new firms in shipbuilding, steel, automobiles, electronics, machinery, chemicals, among others.

The government consciously nurtured certain industries in consultation with the private sector by means of tariff protection, subsidies, creation of state-owned enterprises, fiscal exemptions, rapid depreciation of capital goods, low costs for public services and other type of assistance. The government owned all the banks to direct cheap credit to businesses, had complete control over foreign exchange to ensure that scarce and valuable foreign currencies were used to import vital machinery, technology and industrial inputs. As a matter of fact, the government dictated that spending foreign exchange on anything not essential for industrial development (luxury items included relatively simple things like small cars, whisky or cookies) was prohibited or strongly discouraged through import bans, high tariffs and excise taxes.

As in the case of Japan, the South Korean government also exerted a heavy control of FDI, welcoming companies in certain sectors but also banning FDI in other industries considered critical according to the national development plans. The South Korean government also showed a clear disregard in what concerned IPR’s and foreign copyrights. During the 1960s and 1970s, the country was considered as one of the pirate capitals of the world, with a lax attitude towards foreign patents and an indiscriminate encouragement by the government for reverse engineering.

Chang (2012, p. 155) also tells a curious but ironic story that would start in 1968, when the government decided to develop a strong and competitive steel industry, which is why it created the POSCO company as a state-owned enterprise. The government tried to sell its project and sought for donors among the rich nations of the west, especially the U.S, Britain, France, West Germany and Italy. However, all the potential donors saw this project as highly risky and inadequate for a country with the characteristics of South Korea. Even the World Bank advised the mentioned nations not to support or fund the project, which is why all of them withdrew from the negotiations in 1969. However, the government remained convinced about its vision and after dealing with countless obstacles, POSCO began to produce in 1973. By 1990, POSCO was among the largest steel manufacturers in the world and was not privatized until 2001. In 2010, it was the world's largest steel manufacturer by market value.

In a similar fashion, the government prohibited the now worldwide-known LG company to enter the textile industry and forced it to specialize in electronics during the 1960s, while it also pressured Hyundai to enter the shipbuilding business in spite of the company's reluctance at first. Today, Hyundai is also one of the largest shipbuilders in the world. The government's efforts to boost innovation and high value-added industries, would also have an impact on companies such as Kia, which began as a bicycle company, and Samsung, which began selling dried fish, flour and vegetables (Christensen et al., 2019, p. 169).

The government also set on the quest to modernize the rural areas through its rural development programs during the 1970s, which involved several interventions, rural infrastructure, incentives and support to farmers (e.g. farm roads, small-scale irrigation schemes, credit unions, local processing factories and common marketing systems), decentralization of

industries into rural areas, trade barriers to protect agriculture, and land reforms in order to create close links between agriculture and industry.

At the same time, the government heavily invested and supported the upgrade of the education system, setting aggressive policies where public schools capabilities were stretched to the limit, with up to 100 pupils per class and teachers running double to triple shifts (George, 2010, p. 65). There is a widespread idea that South Korea's success was based on a free-trade strategy due to its aggressive and successful export policies, but a strategy of this kind does not require free trade, as Japan and China have also shown.

The country's success was the result of a pragmatic mixture of market incentives and government direction, where the government did not completely restricted markets like in communist states but neither had a blind faith in the free market ideal. As a result of the government's vision, South Korea became one of the world's most innovative (it ranks 5th in terms of number of patents) and industrial leaders after being one of the poorest. GDP per capita grew more than 5 times just between 1972 and 1979, and since end of the Korean war up until the 1990s, per capita income grew around 14 times in PPP terms, something that took Britain 2 centuries and the U.S around 1 century, which is equivalent for a country like Haiti to turn into Switzerland in less than 3 decades (H.-J. Chang, 2009, p. 12).

Singapore

Singapore was in a similar situation to that of South Korea by the time it gained its independence in 1965. The country had no natural resources, its territory was confined to a small island, poverty was rampant with a highly uneducated society. It is now claimed that much of the country's success can be attributed to the vision of Lee Kuan Yew (1923-2015), Singapore's

first Prime Minister, who was in office from 1959 to 1990. Lee Kuan Yew fostered rapid industrialization in the 1960s by making Singapore attractive as a destination for FDI, focusing on drawing world class manpower, building state of the art infrastructure, setting low and transparent tax regime, and a strong regulatory and legal framework (Hussain, 2015).

The government played an active role in implementing a turbo-powered version of Hamilton's strategy to develop its industrial capabilities, attracting large flows of FDI but through a highly selective regime into areas the government considered as vital for its overall development strategy such as electronics, pharmaceutical, software, machinery and finances, and from which transfers of technology could be ensured (Cohen & De Long, 2016, p. 126).

The government also set a large sector of state-owned enterprises (twice as big as that of South Korea, and significantly larger than that of other third world nations) not only in the usual utility industries such as telecommunications and transportation, but also in other areas such as semiconductors, shipbuilding, engineering, logistics and banking. It also established Singapore Airlines, regarded as one of the best airlines in the world today, which is still under government control. Despite this fact, other developing nations such as The Philippines and Argentina are often criticized for having several state-owned enterprises, although that sector is considerably smaller than that of Singapore (H.-J. Chang, 2009, p. 110).

The government also implemented high standards for a universally accessible, quality public education system and established English as the neutral language of communication, a policy that increased the attractiveness of Singapore for international investors. Thus, in the early 1970s, Singapore reached full employment and joined the ranks of Hong Kong, South Korea and Taiwan a decade later as Asia's newly industrializing countries. The manufacturing and services

sectors remain the twin pillars of Singapore's high value-added economy (*The World Bank In Singapore*, n.d.).

As a result of Lee Kuan Yew's vision, in just 3 decades from between his inauguration in 1959 until 1990, per capita income in Singapore rose by a factor of 29, climbing from around US\$ 435 to more than US\$ 12,700 (in comparison, per capita income in Malaysia went from US\$ 230 to US\$ 2,400 during the same period (Giugliano, 2015). Singapore's per capita income would keep growing to the astonishing figures of US\$ 64,000 (nominal) or US\$ 101,000 (PPP) in 2018, according to the World Bank (n.d.). Interestingly, Nobel Economist Paul Krugman would write: "Singapore grew through a mobilization of resources that would have done Stalin proud" (McGee et al., 2009, p. 7).

Other Late- Industrializers:

Finland. The economic success of Finland and Ireland is often described as one of the most impressive cases of industrial transformation of the second half of the 20th century in Europe. Finland had a strong tradition of protectionism and economic nationalism. For instance, in 1883 the government restricted mining activities by foreigners, in 1886 it imposed a ban on foreigners in the banking system, and in 1889 the state also banned the construction and operation of railways by foreigners.

Similarly, to the U.S, in 1895 the government indicated that the majority of members on the board of directors of companies had to be Finnish and those companies with more than 20% of foreign ownership were officially classified as dangerous, which is why it set 20% as the maximum allowed rate of foreign ownership. In 1919, FDI restrictions were loosen but foreigners still had to get a special permission to open a business and they were obliged to pay

taxes in advance. In 1930, a new law stipulated that no foreigner could own land or mining rights in the country. All these laws would remain active until the mid 1980s, when they were eventually relaxed. Foreign banks were allowed for the first time to establish branches in Finland and foreign ownership was raised to 40%, but all FDI still had to be approved by the Ministry of Trade and Industry. General liberalization would not come until the mid 1990s (Narula & Lall, 2006, p. 251).

Besides these practices of protectionism in favor of local industries, Finland also began to invest heavily in technological development in the 1960s, and there were also significant efforts to expand higher education and its quality, passing a law on higher education in 1966, which focused on science, innovation, math and foreign languages. This gave Finland a highly educated population with positive attitudes towards science as well as research and development. It is widely known today that Finland tops worldwide lists for literacy, problem solving, mathematics and other indicators for education. Additionally, in 1983, the government established the Funding Agency for Technology and Innovation (TEKES).

Finland transformed itself from a backward economy in the 1960s to a global innovation powerhouse that is often ranked among the most competitive economies in the world in the field of electronics, machinery, chemicals and other engineered metal products. Before WWII, around 80% of Finnish labor force worked on a farm, by the end of the 20th century, this figure was down to 1% (*Finland's road to prosperity*, 2006). As a result, Finland's GDP per capita (nominal) climbed from US\$1,180 in 1960 to US\$53,500 in 2008 (World Bank, n.d).

It is important to highlight that the Finnish government, while promoting industrialization and innovation, did not disregard the social wage as it established a social system comprised by social insurance (pensions, sickness and unemployment benefits,

compensation, etc.), welfare (family aid, child-care and disabled services, etc.) and a comprehensive health system. This policy reflected the traditional Nordic belief that the state can intervene benevolently on the citizen's behalf. Today, Finland enjoys one of the world's most advanced and complete welfare systems, which guarantees dignity and decent living conditions to all of its citizens (Kettunen, 2001).

Ireland. On its part, Ireland (one of the poorest countries of Western Europe after WWII), after a not very successful period of economic protectionism between 1932 and 1960, the Industrial Development Authority designed and implemented an industrial strategy based on the attraction of American and European leading ITC and life sciences companies in order to make the country an export platform to service the European marketplace. The government encouraged FDI in export industries through financial incentives, tax exemptions and accelerated depreciation (Best, 2018, p. 19).

Despite the level of openness showed by the Irish government, these policies were not necessarily aligned with "laissez-faire" economics since the government decided to set performance requirements to foreign companies of around 20%, in contrast to the levels of around 2% to 8% imposed by other advanced nations. Moreover, the government explicitly targeted industries into which it wanted to attract FDI, especially in electronics, pharmaceuticals, software, financial services and telecommunications, and also sought to create strong links between foreign and local firms.

In addition, the government diverted an increasing share of public grants to capability upgrading activities such as R&D, education and infrastructure (Narula & Lall, 2006, p. 252). Like in the case of all the countries analyzed so far, Ireland did not have any comparative advantage in IT industries during the 1970s, but this industry became one of the biggest drivers

for the economic growth of the country in later decades. As a result, Ireland's GDP per capita (nominal) grew from US\$ 685 in 1960 to US\$26,400 by the year 2000, and US\$ 78,800 in 2018 (World Bank, n.d.).

Finland and Ireland are among the most impressive cases of industrial transformation in the second half of the 20th century in Europe. However, it is interesting to see that their respective policies towards FDI could not have been more different, which means that there is not one size fits all strategy. Nonetheless, it is also important to mention that no matter how liberal a country may be towards FDI, a targeted and performance-oriented approach like both countries implemented (with carrots and sticks), works better than a hands-off approach which is recommended by the developed countries today (Narula & Lall, 2006, p. 254).

Other European Cases. Other now rich and advanced European nations like Norway, Italy, Belgium and Austria, which were all relatively backward at the end of WWII, also saw the need for rapid industrial development and used similar strategies to those of the countries previously analyzed in this chapter to promote their industries.

All of them had relative high tariffs until the 1960s and 1970s and used state-owned enterprises to upgrade their industries. In Norway and Austria, the government was very much involved in directing the flow of bank credit to strategic industries, while in Italy many local governments provided support for marketing and R&D to small and medium-sized firms.

Practically all of the now-rich nations used nationalistic policies to promote their infant industries through a mixture of protection, subsidies and regulations, as well as a gradualist approach when it came to trade and economic liberalization. Even the less interventionist nations such as The Netherlands, Hong Kong and Switzerland, do not conform to today's neoliberal ideal, as they did not protect patents until the early 20th century (H.-J. Chang, 2009, p. 60).

China

It is often mentioned that the success of the economic superstar of our time, China, was a result of its conversion from a centrally planned communist economy to a liberalized and open economy. It is most likely that, if a Western economist would have been invited to China in the late-1970s to give advice to the leaders of the Chinese communist party regarding the best strategy to reform their economy towards a market-oriented one, the recipe recommended by the economist would have probably comprehend aspects such as agricultural, land and corporate privatization, tax reform, reorientation of public expenditures, openness to FDI, deregulation, aggressive anti-inflation policies⁵⁷, free exchange rate regime as well as trade and financial liberalization.

It is undeniable that China would not have had such an impressive economic growth during the last 4 decades without accessing global trade in order to export its goods to foreign markets and import goods and services from the industrialized nations. However, it is completely false to state that the Chinese government pursued a hand-off approach role or a full free-trade strategy. In fact, China actually took a quite different approach from a conventional reform based

⁵⁷ Hyperinflation is no good for development, that is unquestionable. But all episodes of inflation are not always hyperinflation. In that sense, since the 1980s, the free market policymakers have convinced the world's governments that in order to achieve economic stability, inflation has to be close to 0%, indicating that the ideal type of inflation would be around 1% and 3%. However, evidence shows that an inflation rate below 20% is not necessarily related to a country's growth rate. There have even been cases when high inflation rates above 40% were present during period of high economic growth. For instance, during the 1960s and 1970s, while South Korean's per capita income was growing at a rate of 7% annually, the average inflation rate stood around 20%. During the same period, Brazil was one of the fastest growing economies with a per capita income growth of 4.5% per year and an average inflation rate of 42%. Hence, if anti-inflationary policies are strengthened in excess, the economy might be damaged in the long term. In the case of Brazil, the country managed to low inflation below 7% during the 1980s and 1990s, but the per capita income grew only at an average rate of 1,3% per year (H.-J. Chang, 2012, pp. 79, 80).

on the Washington Consensus principles, one that was experimental in nature and relied on a series of policy innovations that departed significantly from Western norms (Rodrik, 2009, p. 23).

In 1978, the Chinese Communist Party, under the vision of its new leader Deng Xiaoping (1904-1997), who is considered as the father of the Chinese miracle, decided to take a gradualist approach when it came to open up the country economy to an increasingly globalized economy, avoiding the issues of aggressive liberalization that had marked the shock therapies of Russia and other countries. China's reforms began in agriculture with partial privatization schemes and the government also designed an innovative type of companies based on hybrid ownership, known as Township and Village Enterprises (TVEs), which were formally owned by local authorities but usually operate as if they were privately owned. Under this format, thousands of new enterprises were created, which raised the productivity, income and industrialization of many regions of the country, regions that were overwhelmingly agrarian at the time (Stiglitz, 2018, p. 268).

Following the practices and experience from industrialized nations, China also set tariffs of up to 30% to protect its industry, which are considerably high but not even close to that of the level of tariffs instituted by the U.S a few decades before (H.-J. Chang, 2009, p. 30). The country protected itself from GATT and WTO rules until relatively recently, deliberately blocking imports not only with tariff but also with non-tariff barriers. Continuing with trade issues, China established special economic zones, where firms were allowed to operate under close-to-free-trade conditions, since the government was aware that a nationwide liberalization of trade would have decimated the country's infant industries that were still very inefficient. This gradual

strategy enabled China to insert itself in the world economy while protecting employment and rents in the state sector (Rodrik, 2019, p. 123).

In what concerns to FDI, China has been more welcoming than its Japanese and South Korean neighbors, but this strategy of attracting foreign companies was specifically designed to fit the needs and interests of the Chinese government. For instance, foreign ownership ceilings, restrictions in banking, and local content requirements were implemented, as well as foreign companies were forced to participate in joint ventures with local companies and transfer technology and know-how to the latter. This was a price that foreign companies were willing to pay in order to access what would become the largest market in the world (Fletcher, 2011a, p. 88). As a result, FDI increased dramatically during the following decades from virtually nothing in 1980 until becoming the world's second-largest receiver of FDI in the last years, with values around US\$ 168 billion like in 2017, demonstrating that market liberalization was not needed to attract investments (*China's economic miracle: 40-year rise in numbers*, 2018).

Regarding state-owned enterprises (SOEs), the government established what is easily the biggest SOE sector in the world, which now comprise around 40% of the country's total industrial outputs⁵⁸ (H.-J. Chang, 2009, p. 30). The government also implemented policies that gave several incentives and facilities to Chinese private companies such as subsidies to companies that participated in national infrastructure projects or helped meet targets in technology research and development. For example, Huawei, the country's star company, has received as much as US\$ 75 billion in different types of state support since its creation 1987

⁵⁸ The 2015 Fortune's Global Ranking of the 500 largest companies showed that, of the 98 Chinese companies included on the list, only 22 of them are private and that the top-12 Chinese companies in the ranking are all state-owned (Cendrowski, 2015).

(Tao, 2019), and the government paid a record of US\$ 22 billion in corporate subsidies just in 2018 (Hancock & Jia, 2019).

Even though the government was aware that in some cases it was funding inefficient SOE's, their logic to sustain them was not only based on political and economic reason, but mainly on social ones as they saw it as a mechanism to maintain social stability, which would otherwise be undermined by high unemployment and poverty, leading to a potential destabilization of the Communist Party's legitimacy (Stiglitz, 2018, p. 274). Additionally, it is needless to mention the key role that the government played in upgrading and expanding the country's infrastructure, which is now even superior that that of western nations in many aspects.

As a result of the Chinese economic strategy, the World Bank estimates that more than 850 million people escaped extreme poverty, which is a monumental achievement without precedents throughout history. Moreover, between 1980 and 2017, the Chinese economy multiplied by 42, from US\$ 305 billion to US\$ 12.7 trillion; the country became the world's largest exporter from just US\$ 21 billion in 1980 to US\$ 2.49 trillion in 2017; the average growth rate between 1980 and 2016 was 10.2%; the Chinese household consumption grew by a factor of 90 between 1980 and 2016, from US\$ 49 billion to US\$ 4.4 trillion; while the percentage of the illiterate population decreased from 22% in 1982 to less than 4% in 2010 (*China's economic miracle: 40-year rise in numbers*, 2018).

Today, the government is playing a decisive role in designing, coordinating and implementing what are considered as 2 of the most ambitious plans in decades. The first one, named by the Chinese government as Made in China 2025, aims to shift Chinese companies and economic structure from the production of low value-added industrial goods (many which are still under the stigma of doubtful quality) towards high-tech, high-quality and high-sophisticated

products. The second one, known as Belt and Road Initiative, which began in 2013, is being considered as the most ambitious infrastructure project in history, comprehending a huge number of investment initiatives throughout more than 60 countries in order to build a trade route from China to Europe. Many analysts predict that this initiative will not only significantly expand China's economic influence throughout Eurasia but might also be a turning point from a geopolitical point of view.

In short, it is clear that China's success has been the result of the government's concerted efforts to restructure and diversify the economic structure by non-standard practices from the "laissez-faire" perspective. Despite the country's gradual openness towards globalization, if China had nothing other than garments and agricultural products to export, the gains from foreign trade and investment would not have been nearly as large (Rodrik, 2009, p. 2).

The Marshall Plan: Reindustrialization for Economic Recovery

By the time the defeat of Nazi Germany was just a matter of time, an arduous debate began among the allies, especially within the American leadership in order to design a post-war strategy that would ensure that Germany would not be a threat to global peace again. In that sense, the first serious proposal came from the Secretary of Treasury, Henry Morgenthau Jr. (1891-1967), who was in charge of the U.S Department of the Treasury between 1934 and 1945 and was one of President Roosevelt's most trusted Secretaries.

Morgenthau's proposal, which was then known as The Morgenthau Plan, consisted on the deindustrialization of Germany, wrecking their industrial capabilities to make sure that German would not recover their economic, industrial and military might. The intention was to

turn Germany into an agrarian nation, where the majority of population would rely on farming in order to survive. It is even said that Morgenthau, who was openly anti-German, did not want Germany to produce anything at all besides agricultural goods and other commodities (Dietrich, 2002) . President Roosevelt approved the plan as well as the allies in 1943.

After the end of the war in Europe, with President Truman already in power, he ordered the implementation of the plan, although under a different name The JCS Directive 1067 and told General Eisenhower to take no steps looking toward the economic rehabilitation of Germany, so, industrial facilities and equipment were to be destroyed or removed, mines were to be wrecked and filled, and experts in manufacturing would be forcibly removed from the country (Stilwell, 2019). However, during the next couple of years (1946-1947), it became clear that the Morgenthau Plan was causing serious economic problem in Germany and at that time, the American Diplomat, George Kennan (1904-2005), gave a new perspective about the potential consequence of the plan. He recommended that it was on the best interests of the U.S to help rebuild the economic vigor of the European society, including that of Germany, not just due to humanitarian reason but as the best way to fight back the spread of communism in Europe. A weak and impoverished Europe would be a suitable breeding ground for communism, whereas a strong and wealthy Europe would prevent that situation, and it also mean that Europeans would be able buy American products once again (*The Marshall Plan for Rebuilding Western Europe*, n.d.).

The Secretary of State, George Marshall (1880-1959) would also embrace Kennan's vision, and subsequently advanced the idea of a U.S-financed program for the recovery of Europe in 1947. He would be a key figure in the design of the famously known Marshall Plan, officially named European Recovery Program, whose intention was to produce the exact

opposite effect of the Morgenthau Plan, that is, to reindustrialize Germany and the rest of Europe, creating the stable economic conditions for prosperity and democracy to thrive. President Truman would eventually approve the Marshall Plan, and it would be implemented between 1948 and 1951.

The Marshall Plan was not simply a huge transfer of money and resources to the war-torn countries of Europe, it was an explicit attempt to reindustrialize the continent through the traditional policy toolbox that had been successful in the past with policies such as heavy industrial protection and also the protection of farming to shield the sector from its competitor in poorer countries. Again, despite the fact that American industry was vastly superior than Europe's, no one suggested that Europe should follow its own comparative advantage and focus on agriculture (Reinert, 2008, p. 89). The plan also aimed to finance the re-building of critical infrastructure (factories, railroads, bridges, roads, schools, etc.) and implemented strict controls on capital mobility, also looking to fully industrialize agricultural nations like Italy for the first time or semi-industrialized nations like France (Fletcher, 2011a, p. 141).

During the years of the program (1948-1951), the U.S provided over US\$ 13 billion (more than US\$ 100 billion today) in aid to 16 Western European nations, including West Germany. By the time the Marshall Plan, industrial production in Western Europe had risen 40% above the prewar level, while trade and exports also increased far above what they were before the war. Employment rose and people's standard of living with it. Politically, communist parties lost influence throughout western Europe (Martinez, 2009, p. 4,7). Consequently, pragmatic policy experimentation became the definition of the ideology that was post-WWII American liberalism, characterized by the regulation of finance, a social safety net, mortgage insurance, high marginal tax rates, and a big active government (Cohen & De Long, 2016, p. 13).

Keynesianism: The State Regulation for Prosperity and Stability

Adam Smith's argued that markets were self-regulating by the invisible hand, and that this automatic force was superior to any kind of interventionists policies governments could come up with in order to fix them, and that in the long term, this would only lead to the maximum efficiency of the markets if they were left undisturbed. However, evidence would clearly show that there was nothing automatic about recovery during economic downturns (Martinez, 2009, p. 184). The Great Depression of the 1930s that followed the stock market crash of 1929, which was the result of minimal financial regulation, complex financial product and overindebted households and banks, was a major setback for "laissez-faire" economics. Moreover, the turbulent years of the interwar period convinced many policymakers that an open capital account and unregulated financial markets were incompatible with macroeconomic stability (Rodrik, 2019, p. 238).

During the 1930s, the famous British economist John Maynard Keynes (1883-1946) would play a key role in the formulation of the Bretton Woods System and the economic paradigm that would prevail on the decades following WWII. Keynes overturned the neoclassical approach, rooted in the laissez-faire doctrine, which stated that markets were fundamentally self-regulating, by showing that capitalist markets needed constant regulation because of their inherent tendency towards instability. In Keynes' most famous book, *The General Theory of Employment, Interest and Money* (1936), he argued that aggregate spending determined the overall level of economic activity, and that inadequate aggregate spending could lead to prolonged periods of high unemployment, which is why he advocated for the use of debt-based expansionary fiscal and monetary measures and a strict regulatory framework to counter capitalism's tendency towards financial crises and disequilibrium, and to mitigate the adverse

effects of economic recessions and depressions, mainly by creating jobs that the private sector was unable or unwilling to provide in this context (Chang & Grabel, 2005, p. 19).

In that sense, Keynes explained how the lack of sufficient aggregate demand could trap business and consumers in a vicious cycle of low consumption, investment and unemployment in what he referred as the “Paradox of Thrift” (if everybody saved, no one would spend) (Martinez, 2009, p. 184). Under these circumstances, it was unlikely that the economy would return to prior levels by itself, which is why government monetary policies could help stimulate demand by putting money into the hands of people who would spend it, the workers. If monetary policies were not enough, governments could also rely on fiscal policies either by increasing public expenditures or by cutting taxes. These Keynesian fiscal and monetary tools would then be able to dampen business cycles, increase stability and boost full employment (Madland, 2015, p. 113)(Stiglitz, 2018, p. 109).

Keynes embraced cooperation and state intervention but not just because, he had a disregard for Marxist-style economics, but he was convinced that markets could avoid collapses if government adopted the right policies to correct the inherent failures of markets. He did not deny the benefits of economic freedom, but he believed that this freedom meant nothing without opportunities and stable employment, and that wealth creation depended on confidence and certainty, and that could only be achieved through stable markets and effective wealth-redistribution mechanisms (Martinez, 2009, p. 186,194).

In addition, Keynes also advocated for a class compromise between capital and labor as a key mechanism to guarantee social stability and domestic peace. In that sense, States were encouraged to actively intervene in industrial policy and set standards to boost the social wage by establishing a variety of welfare systems that included protection for labor, social programs,

investment in universally available social services such as education and health, social market economy, among others. This form of political economic organization would be later referred to as embedded liberalism, explaining how market processes alongside entrepreneurial and corporate activities could be surrounded by a web of social and political constraints and a regulatory environment that led the way in economic and industrial strategy. This was a middle path between laissez-faire (enable to ensure full employment) and central planning (Harvey, 2011, p. 10,11)(Skidelsky, 2019, p. 140).

Keynes also went further, showing that all these concepts needed to be embraced collectively at an international level, because as the Great depression showed, the actions or markets failures of one country could easily be spilled over to others, which is why he advocated for the creation of an institution like the IMF in order to avoid this by putting pressure on countries to maintain their economy at full employment and by providing financial assistance to those countries unable to afford expansionary increases in government expenditures due to economic difficulties (Stiglitz, 2018, p. 286).

Today, it is undeniable that the economic progress during the Keynesian era was a success. Throughout the Western world, between the end of WWII until the mid-1970s, rich nations experienced what is now known as The Golden Age of Capitalism, with very low levels of unemployment, greater economic stability, unprecedented expansion of the middle class, wages and living standards rose, and higher levels of economic growth than ever before.

The U.S was specially benefited by this context, where further Keynesian measures were implemented such as a strong financial regulatory framework with strict regulation of the financial system, including the separation of commercial banking from investment banking; and extensive capital controls to reduce currency volatility (Mitchell & Fazi, 2017, p. 16). These

domestic and international measures kept financial excesses and bubbles under control for over 25 years. Per capita income growth rate in Europe increased from 1.3% during the liberal golden age (1870-1913) to 4.1% between 1950 and 1973. In the case of the U.S, it rose from 1.8% to 2.5%, while in Japan the rate went up from 1.5% to 8.1%.

This amazing economic growth was combined with low income inequality as a result of the widespread social welfare programs (H.-J. Chang, 2009, p. 63). For instance, in the U.S (where it can be said that Keynesianism began before WWII with the New Deal), the share of the country's wealth taken by the top 1% decreased from 16% before WWII to less than 8% and stayed close to that levels for 3 decades (Harvey, 2011, p. 15).

The Keynesian era showed that market cooperation and imposed policy coordination did not undermine the capacity to build wealth and prosperity since workers' demand for increased consumption, higher wages and better social provision did not necessarily undermine profits, productivity or growth as neoclassical economics claimed. On the contrary, it showed that consumption was the propulsor of growth, and that well-implemented government monetary and fiscal policies could also benefit capitalists and the private sector as well.

Keynesianism would eventually come to an end in the late-1970s due to widespread stagflation and the volatility generated by the oil crisis in the middle east. However, over the past 30 years the end result has been a series of speculative bubbles and near collapses of the market, only to be ultimately alleviated by the concepts and institutions that Keynes promoted (Mitchell & Fazi, 2017, p. 25); Martinez, 2009, p. 195).

CHAPTER 6- THE WASHINGTON CONSENSUS AND THE NEOLIBERAL ERA: THE AMERICAN SHADOW?

The Washington Consensus and the Rise of Neoliberalism

The postwar consensus was universally based on Keynes' prescriptions. However, in the late-1970s, Keynesianism began to crumble under the influence of the so-called neoliberal counter revolution, which was an ideological and monetarist war on Keynes' ideals mostly based at the University of Chicago, and led by the Nobel economist Milton Friedman (1912-2006), who would give rise to a new generation of "die-hard free-market economists and whose ideal would soon began to enter the mainstream academia and policymaking (Mitchell & Fazi, 2017, p. 43). Friedman's logic was heavily influenced by famous defender of classical economic liberalism, the Austrian economist Friedrich Hayek (1899-1992), who argued in his famous book *The Road to Serfdom* (1944), that government economic planning would crush individual freedom and inevitably lead to totalitarian control (Monbiot, 2016).

Hayek's response to this potential threat was to transfer control of economic factors to the private sector from the public sector, ensuring an environment of free-market capitalism away from government spending, regulation, and public ownership. The neoliberal⁵⁹ vision proposes that human well-being, sound economic growth and poverty reduction can best be achieved by liberating individual entrepreneurial freedoms within an institutional framework

⁵⁹ What makes neoliberalism "neo" is a crucial modification of the older belief in a free market and a minimal state, known as "classical liberalism". In classical liberalism, merchants simply asked the state to "leave us alone" – to *laissez-nous faire*. Neoliberalism recognized that the state must be active in the organization of a market economy. The conditions allowing for a free market must be won politically, and the state must be re-engineered to support the free market on an ongoing basis (Metcalf, 2017).

characterized by strong private property rights, free markets and free trade. The withdrawal of the state alongside privatization and market deregulation are claimed to boost efficiency and productivity within the economy, by eliminating bureaucracy, increasing quality, reducing taxes and subsequently, reducing costs.

The neoliberal model also promoted free trade, as it sees international competition as healthy for the improvement of efficiency and productivity, the reduction of prices and, as a result, the control of inflationary tendencies. Moreover, the neoliberal doctrine advocates for the minimal intervention of the government in the economy, claiming that it should only limit to guarantee the quality of money, military and defense affairs, internal security, private property rights and legal structures.

Ironically, the neoliberal model needs a strong state that is able to create and preserve an institutional framework that is appropriate for functioning markets and neoliberal practices. Additionally, since neoliberalism defends individual freedom, it claims that each individual is held responsible and accountable for his or her own actions and well-being, and also when it comes to aspects such as access to education and healthcare. In that sense, individual success or failure is interpreted in terms of personal virtues or performance rather than being attributed to any systemic property within the economy or the society (Harvey, 2011, p. 2,65).

It is important to highlight to important economic concepts on which the neoliberal vision is based, these are “Trickle-Down Economics” and ‘Supply-Side Economics’. The former states that tax breaks, capital gains and benefits for corporations and the wealthy will trickle down to everyone else and stimulate economic growth, assuming that all members of society benefit from growth, and growth is most likely to come from those with the resources and skills to increase productive output (Kenton, 2019b).

The latter is held in stark contrast to Keynesianism (the believe that consumers and their demand for goods and services are the key economic drivers), arguing that producers (supply-side) and their willingness to create goods and services are the key aspects of economic growth, which is why the government should give benefits and incentives to the producers instead that to those who create the demand (consumers and workers) (Harper, 2019).

In 1947, Hayek founded what would be the first organization focused on spreading the neoliberal doctrine, the Mont Pelerin Society, which was supported by dozens of millionaires and their foundations, as Hayek's theories draw their attention as a doctrine that could give them the opportunity to free themselves from government regulation and taxation. This would create an international network of academics, businessmen, journalist, activists and think tanks that would multiply and promote the ideology such as the American Enterprise Institute, the Heritage Foundation, the Cato Institute, the Institute of Economic Affairs, the Centre for Policy Studies and the Adam Smith Institute in a concerted movement to advance the interests of the corporate sector (Monbiot, 2016).

The neoliberal doctrine would gain further academic preponderance after both Hayek and Friedman were awarded with the Nobel Prize in economics in 1947 and 1976, respectively. The neoliberal age would consolidate with the election of Ronald Reagan⁶⁰ (1911-2004) as President of the U.S in 1981 and Margaret Thatcher⁶¹ (1925-2013) as Prime Minister of the United Kingdom in 1979. Their administrations would begin the purge of Keynesian influences

⁶⁰ Ronald Reagan frequently denigrated government and said: "Government is not the solution; Government is the problem" (Madland, 2015, p. 64) .

⁶¹ Margaret Thatcher would famously declare: "There is no such thing as a society, only individual men and women. Social solidarity were to be dissolved in favor of individualism, private property, personal responsibility and family values" (Harvey, 2011, p. 23).

and favor the adoption of monetarist “supply-side” policies such as widespread privatization, tax reductions for corporations and the wealthy, economic and financial deregulation, disenfranchisement of labor unions, and dismantling of the welfare state.

This corporate counterattack against Keynesianism was by no means limited to the U.S and the U.K. For instance, Wall Street and the big New York investment banks became more international and focused on lending capital to foreign government and other actors, an endeavor that required liberalization of international financial markets, which is why the U.S government began to actively promote and support this strategy in the international arena. In this way, pro-neoliberals would begin to occupy position of considerable influence in different sector such as education, think tanks, the media, corporate boards, financial institutions and, last but not least, in international institutions such as the IMF, the World Bank (institutions that were conceived as Keynesian) and the World Trade Organization (WTO). As a result, after 1982, both the IMF and the World Bank would become centers for the propagation and enforcement of neoliberal fundamentalism throughout the world, especially the developing one (Harvey, 2011, p. 3, 28, 29).

This trend would eventually give birth to the so-called Washington Consensus a set of economic policy recommendations for developing countries, and Latin America in particular, that became popular during the 1980s. The term Washington Consensus usually refers to the level of agreement between the IMF, World Bank and U.S Department of Treasury on those policy recommendations since all shared the neoliberal view that the operation of the free market and the reduction of state involvement were crucial to development in the global South (Hurt, n.d.).

Among the specific policies recommended by the so-called Washington Consensus, 6 were particularly noteworthy, because they introduced certain concepts and prescriptions that were contrary to some of the Bretton Wood and Keynesian ideals, which shaped the economic path of both develop and developing countries in the last decades. These policies are summarized below (Symoniak, 2011):

- 1- **Trade Liberalization:** Domestic markets must be opened while trade restrictions and tariffs should be minimized or removed. By allowing imports into their country, developing populations may reap the benefits of economies of scale. Protectionism is injurious and harmful to domestic markets rather than making them sustainable.
- 2- **Foreign Direct Investment:** Domestic markets must open-up and encourage the reception of as much FDI as possible, since they would bring valuable capital, jobs and critical technological skills.
- 3- **Privatization:** State-owned enterprises are not efficient and ought to be privatized. Private sector operates with maximum efficiency, boost revenues and enhance trickle-down economics. Corporations must be further incentivized with tax cuts.
- 4- **Deregulation:** Governments must deregulate domestic economy for private sector to be more productive, reduce corruption and stop pulling down growth. It's important for governments to cut out capital controls and allow their free flow.
- 5- **Public Expenditures:** Subsidies need to be either reduce to a minimum level or completely eliminated. Government spending should be reduced.
- 6- **Property Rights:** Respect for property rights must be enforced at a local and international level, since a meager protection of property rights reduce private sector's incentives to save and invest.

In that sense, during the 1980s and 1990s, the IMF, World Bank, and the newborn WTO started to push the neoliberal agenda in developing countries, an effort that was mainly led by the U.S and supported by other developed nations. In this regard, both IMF and World Bank started to get involved in virtually all areas of economic policy within developing countries, areas such as public budgets, industrial regulation, agricultural pricing, labor market regulation, privatization, among others. However, the most noticeable strategy that these institutions and other rich nations used (and still do) to intensify the expansion of the Washington Consensus agenda was that they began to require or attach certain governance conditions in exchange of loans, further involving and influencing developing countries in areas like democracy, decentralization, central bank independence, corporate governance, etc. (Chang, 2008, p.85). Both institutions would actively promote the adoption of the so-called Structural Adjustment Programs, loan conditionalities and Shock Therapy, designed for countries to adhere to the new economic paradigm leaned towards an aggressive liberalization of domestic markets and immediate trade liberalization. Rodrik (2001, p.167) summarizes this new mantra in the following terms:

“If you want to catch up with the living standards of the advanced nations, there exists no instrument more potent than reducing your import tariffs and relaxing other restrictions on trade”, and further points out that “the idea of free trade as an engine of growth had become such a sacred cow that someone who revisited the evidence needed to have his motives questioned”.

Besides widespread deregulation and privatization, the result was what Rodrik (2019, p. 28) refers as “hyper globalization”, explained as the attempt to eliminate all transactions costs

that might hinder trade and capital flows, where the WTO (founded in 1995) began to establish rules in sectors where its predecessor, the GATT (General Agreement on Tariffs and Trade, founded on 1947) did not. Trade rules favoring liberalization were extended to services, agriculture, intellectual property rights, sanitary and phytosanitary standards, among others, which were sectors that were previously considered to be domestic policies.

The modern free trade argument, which is based on the Heckscher-Ohlin-Samuelson theory, is based on the standard assumption of neoclassical economic and Ricardian theory, claiming that comparative advantage derives from international differences in the factors of productions such as capital and labor rather than the international difference in technology between countries. The theory further argued that unrestricted international trade would produce a factor-price equalization, that is, prices paid to the factors of production would eventually tend to be the same around the world (Stiglitz, 2018, p. 70). While Ricardo's theory gave rise to a strong faith in the power of unrestricted markets as the only way towards economic growth in the 19th century, this new theory alongside the neoliberal momentum would replicate the same situation. The difference would be that in the 1840's the phenomenon was called free trade⁶², and now it is called globalization (Reinert, 2008, p. 56).

⁶² Curiously, Milton Friedman would later admit that his advocacy of free trade deals is based not on fact or data, but entirely on faith. In an interview on CNBC, he told the story of a man in Minnesota who asked him if there was any free-trade agreement he would oppose? He told that he replied: "No, absolutely not. I wrote a column supporting CAFTA. I didn't even know what was in it. I just knew two words: free trade" (Martinez, 2009, p. 157).

Reverberations of the Neoliberal era throughout the Developing World

After witnessing what the powers that fought in WWII achieved through planned-industrial and mass production growth, as well as the unprecedented record of industrialization achieved by the USSR in the 1930s. Hence, and following the economic wisdom that had prevailed since the times of King Henry VII, many developing countries in Latin America, Africa and Asia were implementing their own version of state-led industrialization between the 1950s and 1970s, acknowledging that sustained economic development required a vibrant manufacturing sector and that it would not necessarily happen on its own. In that sense, it was agreed that the path towards economic success was to protect and encourage local industries to produce goods and services that had previously been imported from abroad (even if they were less competitive), since the economies of these nations at the time were largely based on agriculture and natural resources (Stiglitz & Charlton, 2005, p. 18).

However, the neoliberal agenda would begin to be pushed during the 1980s into developing countries by an alliance of governments from developed countries led by the U.S and mediated by the Holy Trinity of international economic organizations that they largely control (IMF, World Bank and WTO), aiming to create a proper environment to the foreign goods and investments that they could sell to these markets. As mentioned before, both the IMF and the World Bank played an important role by promoting the implementation of Structural Adjustment Programs (SAPs), Shock Market Therapies, and also by attaching to their loans the condition that the recipient countries adopt neoliberal policies.

Most countries have been implementing free market policies for over 3 decades with privatization of public financial and industrial entities, austerity measures, liberalization of international trade and investment, and reduction of income taxes and social benefits. Even

though the promoting institutions and advocates of neoliberal policies recognized that these policies could generate certain temporary problems such as increasing inequality, they were convinced that the long-term benefits would significantly outpace these issues. The result has been the opposite pole of the promised as free market policies had caused slower growth, greater inequality and more pronounced instability in most countries.

The negative effects of aggressive liberalization hit developing countries harder due to their weaker domestic markets, public institutions and social-welfare systems, while in many developed countries, these problems were disguised by the enormous expansion of credit (Chang, 2012, p. 20). The SAPs and austerity measures imposed on developing countries in the 1980s and 1990s undermined many of the achievements of the previous growth model, driving living standards down and poverty levels up. By the mid-1990s, no less than 57 developing countries had become poorer in per capita income in comparison to 15 or 25 years earlier, with growing unemployment, deterioration of labor rights, rising inequality and an increasing financial and economic instability (Mitchell & Fazi, 2017, p. 102).

Between the 1960 and 1980, when state-led industrialization and protectionism (supposed to be the bad policies from the neoliberal perspective) were being implemented throughout the developing world, the aggregate global growth rates were 3.5% during the 1960s and even 2.4% during the troubled 1970s. However, these rates fell to 1.4% during the 1980s and only 1.1% during the 1990s, contradicting the premises of neoliberalism and its potential to boost growth (Harvey, 2011, p. 19).

In what concerns to average per capita income, it grew by 3.1% annually between 1960 and 1980 throughout the developing world, while this figure decreased to 1.4% between 1980 and 2000, and 1.7% between 1980 and 2008 (H.-J. Chang, 2009, p. 128). Likewise, since the

1980s, most of the world's poor nations have actually seen the income gap between themselves and the rest of the world. increase. For instance, in 1980, 32 African countries had an income per capita (PPP terms) equal to 9.3% of the U.S, while in the case of 25 Latin American and Caribbean countries the figure was around 26.3%. Nevertheless, by 2004, these rates dropped to 6.1% and 16.5%, respectively, representing a drop of over 35% in relative per capita income (Fletcher, 2011a, p. 155).

From another point of view, in 1960 the income gap proportion between the fifth of the world's people living in the richest countries was 30 to 1, but increased to 60 to 1 in 1990, and 74 to 1 in 1997. This trend was also clear within many developing countries themselves, as the neoliberal model succeeded remarkably in restoring or creating a powerful economic elite (e.g. Brazil, Chile⁶³, Mexico, Russia, South Africa, etc.) (Harvey, 2011, p. 19).

The next couple of decades would witness a series of resistance movements against the neoliberal agenda throughout the developing world. There were protests and riots against the neoliberal policies in countries such as Algeria (1988), Benin (1989), Bolivia (1985), Ecuador (1987), Jamaica (1985), Jordan (1989), Mexico (1994), Niger (1990), Nigeria (1986, 1988, 1989, 1990, 1992), Russia (1993), Sudan (1987), Trinidad (1990), Uganda (1990), Venezuela (1989), Zaire (1985), and Zambia (1987) (*Structural Adjustment Programs*, 2003).

Impact in African Nations

After the independence of African countries around 1960, the initial economic performance during the next couple of decades was significant, as state-driven development

through Import-Substitution Industrialization (ISI) was promoted in order to reduce their dependency on manufactured imports, while agriculture was placed in a secondary role to provide raw materials for industries. After 84 SAPs were implemented between the World Bank and various African nations during the 1980s, introducing policies to drastically reduce trade protection and barriers, eliminate subsidies and price controls, remove controls on the movements of capitals in the financial system, eliminate controls on FDI, and reduce the role of the state in the economy and in the provision of social services (Robison, 2006, p. 103). Consequently, by suddenly exposing immature industries to the fierce international competition led by powerful and mature industries from developed countries, the few industrial sectors that succeeded during the 1960s and 1970s collapsed in many African nations.

Not surprisingly, between 1960 and 1980, per capita income in Africa grew 1.6% but in the next 3 decades after that, it only grew 0.7% (H.-J. Chang, 2012, p. 21). There are many examples of the havoc that these policies created throughout Africa. For instance, Senegal experienced large job losses following liberalization in the late 1980s and by the early-1990s, employment cuts had eliminated over 30% of all manufacturing jobs. In Ivory Coast, the chemical, textile, shoe, and automobile assembly industries virtually collapsed after tariffs were abruptly lowered by 40% in 1986.

In Zimbabwe, following trade liberalization in 1990, the unemployment rate jumped from 10 to 20% as local enterprises went bankrupt (Chang, 2009, p. 68). Similar problems spread in Nigeria, Sierra Leone, Zambia, Zaire, Uganda, Tanzania, and Sudan, where liberalization in the 1980s brought a tremendous surge in consumer imports and sharp cutbacks in foreign exchange available for purchases of intermediate inputs and capital goods, causing devastating effects on industrial output and employment (Fletcher, 2011a, p. 159).

In the case of Kenya, excessive banking deregulation caused 14 banks failures just in 1993 and 1994 (Stiglitz, 2018, p. 28). Moreover, by the end of the 1980s, Sub-Saharan African countries were facing fundamental problems: high rates of population growth, low levels of investment and saving, inefficient use of resources, weak institutions and human capacity, and a general decline in income and living standards. Sub-Saharan Africa's debt crisis worsened between 1980 and 2000, with the total foreign debt rising from US\$60 billion to US\$206 billion, and the ratio of debt to GDP rising from 23% to 66%.

The level of economic decline during the 1980s and 1990s within sub-Saharan Africa caused analysts to refer to the period as two "lost decades", considering that Sub-Saharan African income dropped by 23% between 1980 and 2000 (Madland, 2015, p. 62); Amahazion, 2016). As a result of the "lost decades", many African countries were forced to rely again on the production and export of raw materials and natural resources, continuing to suffer from price fluctuations and stagnation of production technologies.

The continent has remained commodity dependent, losing market share in commodity exports to other developing countries and has been unable to diversify into manufacturing exports. Naturally, the standard of living has been stagnant for over 3 decades (Heidhues & Brüntrup, 2011). Many World Bank economists would later recognize that, given limited capabilities in Africa, extensive trade liberalization raises the "possibility of significant deindustrialization within these economies." (Carmody, 2008).

Impact in Latin America

Many Latin American countries were aware that only through protection of local industries they could eventually be able to compete with the mature firms from America and

Europe, which is why countries such as Brazil, Mexico, Argentina, Ecuador and Peru embarked in Import-Substitution Industrialization programs between the 1950s and 1970s. These countries adopted this strategy challenging their traditional comparative advantage in natural resources (as the U.S, Australia, Canada, Sweden, Finland, Soviet Union and others did) because they did not want to rely on primary commodities due to their limited long-term growth prospects and falling terms of trade.

Latin American countries grew rapidly during the decades of industrialization, but after embracing the Washington Consensus ideology in the early-1980s. As in the case of Africa, Latin American countries opened and deregulated their financial markets and trade regimes. The continent was far more open in terms of financial liberalization and openness to FDI than East Asian nations (where controls over foreign capital flows were strict), causing Latin America to increase its reliance on foreign capital flows and making it particularly vulnerable to global economic shocks in the process, which would generate several financial crises throughout the region during the following decades. Therefore, in the 1980s, the continent entered what is also known as the “lost decade”, during which growth stagnated and per capita incomes fell, with average economic growth rates falling almost to 0% in comparison to the 6% achieved during the 1970s (Stiglitz & Charlton, 2005, p. 19, 22).

During the decades of industry promotion, Latin American economies grew around 3.1% on average, but ever since 1980 until the mid-2000s, they grew only 1.7%. In per capita terms, between 1960 and 1980, GDP per capita in Latin America grew around 2.8% while between 1980 and 2000, it only grew around 0.3%. Furthermore, between 2000 and 2005, per capita incomes just grew at 0.6% (H.-J. Chang, 2002, p. 128).

According to the neoliberal advocates at the time, Latin America's issue derived from too much state intervention in the process of developing national industries, promoting inefficient sectors and excessive public spending. However, it is now clear that Latin America's failure was less associated with industrialization and more related to external factors such as the global recession caused by the oil price shock during the late-1970s and the U.S Federal Reserve raising interest rates to unprecedented levels. If the strategy of industrialization and protection would have been the problem, then the results would have been different and at different times, but in the case of Latin America, not a single country experienced much economic growth during the 1980s.

Many economists now believe that the major important differences between the East Asian and the Latin American regions were the policies of integration, openness and free trade (Stiglitz & Charlton, 2005, p. 21). Countries such as Mexico, Argentina, Brazil, Colombia, Chile⁶⁴ and Peru did more liberalization, deregulation and privatization within their economies in just a few years than most East Asian countries have done in 4 decades. While growth in Latin America was around 1.7% between 1980 and 2000, it pales in comparison to the 5.5% East Asian growth during the same period. So far, Latin America as a whole has never recovered its pre-1980s growth level (Rodrik, 2009, p. 20)(El Refai, 2016).

⁶⁴ Chile seems to be the success of neoliberalism, but its story is more complex. First experiments of the Chicago boys in the country were a disaster. The financial crash of 1982 had to be resolved by the nationalization of the whole banking sector. After that, government provided exporters with a lot of help in overseas marketing and R&D, and also used capital controls in the 1990s to successfully reduce the inflow of short-term speculative funds, although its recent free trade agreement with the US had forced it to promise never to use them again. Over the past 3 decades, the country has lost a lot of manufacturing industries and become excessively dependent on natural resources-based exports. The 2019 nationwide social protests against the economic system (for instance, Chile is the only country in the world where water is privatized) prove that Chile was not the panacea of neoliberal policies that free market advocates believed for a long time (H.-J. Chang, 2009, pp. 30, 31).

Former Soviet States

The transition to a market economy in former Soviet states was dominated by the shock therapy process of transition, which involved policies such as immediate price liberalization, immediate privatization, immediate establishment of an independent central bank, immediate achievement of a balanced budget, immediate introduction of free trade and immediate establishment of a fully convertible flexible currency. All without a concern about the initial conditions of transition economies. At this point, it is no surprise that the shock therapy process did not deliver the promised high living standards. Instead, economic collapse, stagnation, inflation and unemployment were characteristics of the process, accompanied with the familiar outcomes of poverty and crime (Marangos, 2005).

The most significant case is that of Russia, a former industrial giant, which was subject to the “Shock Therapy” (Neoliberal Shock) in the early-1990s after the dissolution of the Soviet Union, forcing it to implement an aggressive transition to a market economy with liberalization, deregulation and privatization of the economy. By the end of the decade, Russian’s per capita income declined at 3.5% annually, large part of population fell into poverty, and male life expectancy declined by 5 years. As mentioned in the introduction, Stiglitz (2018, p. 235) indicates that the devastation in loss of GDP was greater than Russia has suffered in WWII, since industrial production fell 42.9% just between 1990 and 1998, while the total GDP fell by 43%. Furthermore, while in 1989 only 2% of Russian were poor, by 1998 the figure escalated up to 23.8% (based on the 2 dollar per day standard). As a result, Russia not only saw its economic indicators plummet, the country was abruptly deindustrialized at the point that it now heavily relies on the export of oil and gas to sustain its economy.

However, as in many other countries, many billionaires emerged, and inequality became rampant. Globalization and the introduction of market economy has not produced the promised results in Russia⁶⁵. It is curious to acknowledge that Russia's transition engineered by the western international economic institutions and that of China, design by itself, could not be greater. While in the late-1980s, China's GDP was 60% that of Russia, by the end of the 1990s that the number had reversed. Russia saw unprecedented increase in poverty, China saw an unprecedented decrease of it (Stiglitz, 2018, p. 105).

Financial Crises

The increasing and deregulated capital mobility emphasized by the neoliberal doctrine and its programs, not only in the developing world but also in the developed one, led to the generations of a series of financial crises throughout the world, crises that had been pretty much under control since the end of WWII sine between 1945 and 1975, when global financial system was not liberalized, developing nations suffered no banking crises, only 16 currency crises and 1 twin crisis (a combination between a banking and currency crisis in a given nations. In that sense, the percentage of countries with banking crises became closely related to the degree of international capital mobility that they imposed and, not coincidentally, many developing countries have experienced more frequent and severe financial crises since they opened-up their capital markets in the 1980s and 1990s.

⁶⁵ Poland's former deputy premier and finance minister, Grzegorz W. Kolodko, argued that the success of his nation was due its explicit rejection of the doctrines of the Washington Consensus. The gradual process of liberalization allowed restructuring to take place prior to privatization, so that large firms could be reorganized into smaller units, which is why Poland now has a vibrant SMEs sector (Stiglitz, 2018, p. 199).

Between 1975 and 1997, there were 17 banking crises, 57 currency crises and 21 twin crises throughout the developing world (H.-J. Chang, 2009, pp. 85, 87). The financial crisis that shook Asia and the world in the 1997 was an example of a crisis economists were convinced could not happen, because the market itself would self-regulate and solve all problems. This crisis was preceded or succeeded by other crises such in Mexico (1994-1995 Tequila Crisis), the Russian “Vodka Crisis” (1997-1999), the Brazilian crisis (1998), the Argentinian crisis⁶⁶ (2000), the Bank Stock Crisis of Israel (1983), the Japanese price bubble (1986), the Indian crisis (1991), the Finnish banking crisis (1990-1993), the Swedish crisis (1990), U.S black Monday (1987), U.S savings and loans crisis (1986-1995), the dot-com bubble (2000-20020), the Turkish crisis (2001), the Uruguay banking crisis (2002), the U.S energy crisis price bubble (2000s), Junk Bond Crash (1989), the Peruvian crisis and hyperinflation of the 1980s, the financial crisis in Ecuador (1998-1999), the Chilean crisis (1982), the Bolivian crisis (1982-1985), the Colombian crises of 1989 and 1999, the economic crisis in Guatemala, Costa Rica and Nicaragua (1980-1987) as well as similar situations in other countries such Venezuela and Panama. This cycle of frequent crises eventually led to the mother of all crisis in the great financial crash of 2008 in the U.S, which affected the entire world’s economy and caused several other severe crises in

⁶⁶ In 1992, Argentina liberalized the economy in order to reestablish the country’s credentials in the international community. President Menem opened the country to foreign trade and capital flows, introduced greater flexibility into labor markets, privatized public companies and social security, and pegged the peso to the dollar in order to bring inflation under control and provide security for FDI. As a result, unemployment rose, downward pressure on wages, while elite used privatization to amass new fortunes. By 1995, within weeks, the banking system lost 18% of its deposits. The economy fell into steep recession. GDP contracted by 7.6% from the last quarter of 1994 to the first quarter of 1996 leading to a massive capital outflow and shrinkage of foreign exchange reserves. Unemployment soared to 18% and debt more than double between 1995 and 2001. Hence, Argentina had to be bailed out by the IMF for \$6 billion (Harvey, 2011, p. 105).

countries such as Spain, Italy, Iceland, Latvia, Russia, Ireland, Greece and Portugal (R. H. Green, 1983)(Stiglitz, 2018, p. xxxv)(UNCTAD, 2009).

Poverty Reduction

Significantly, the period since 1990 was anything but a disaster for economic development from the point of view of poverty and extreme poverty reduction, as the last two decades have proved the most favorable that the world has ever experienced. There have been important progresses in countries such as Tanzania, Tajikistan, Republic of Congo, Indonesia, Vietnam, Ethiopia, Pakistan, Brazil, Chile, Peru, Panama, Botswana and Namibia. Nonetheless, the largest proportion of the world's population in poverty has fallen almost entirely due to improvements in China, India, and Vietnam, which are precisely the countries that refused to implement free market policies in all their extension, adopting a gradual and partial liberalization strategy with policies highly unconventional (from the neoliberal perspectives) such as high levels of trade protection, lack of privatization, extensive industrial policies, and lax fiscal, IPRs and financial policies. The curious aspect of this is that these economies hardly looked like exemplars of the Washington Consensus (Rodrik, 2006).

According to the United Nations Development Program (UNDP), between 1981 and 2013, China lifted 850 million people out of poverty, with the percentage of people living in extreme poverty falling from 88% to 1.85%, which is unparalleled in human history, especially in such a short time span. In that sense, China alone has contributed to approx. 76% of all global poverty reduction since 1981 (Sankar Bosu, 2018) . On the other hand, India holds the second place in terms of poverty reduction by pulling over 170 million people out of poverty between

1990 and 2013, while Vietnam did the same for over 30 million people during the same period (Bhattacharya, 2018).

The magnitude of these figures can only be comprehended when they are compared to facts such as the entire population of the 33 Latin America and the Caribbean countries in 2018 was estimated to be around 641 million people, while that of Europe was 513 million and that of Sub-Saharan Africa was a bit more than 1 billion in 2018. This means that China alone has managed to lift more people out of poverty than the entire population of Latin America and the Caribbean, and an equivalent of more than 80% of the entire population of Sub-Saharan Africa (World Bank, 2020).

If China, India and Vietnam, as well as the East Asian Tigers such as Singapore, South Korea and Taiwan, had all failed and got poor economic results, while Latin America and Africa managed to obtain the results that Asian nations actually achieved, then it would be an undeniable argument in favor of the Washington Consensus.

Reverberations of the Neoliberal Era in the U.S

In 1935, President Roosevelt made clear his view that excessive market freedom was the origin of the economic and social problems of the 1930s depression, arguing that excessive profits and wealth concentration could create a scenario of undue and unaccountable private power. This is why he advocated for the primary obligation of the state and its civil society, which was to use its power and allocate its resources to eradicate poverty and to assure security of livelihood and social justice. He was convinced that necessitous men are not free men. This philosophy would be behind the economic and social policies during the New Deal and the Keynesian era.

All this changed with the rise of neoliberalism in the 1980s, which emphasized that the role of government⁶⁷ was to create a good business climate rather than look to the needs and well-being of the population at large (Harvey, 2011, p. 48, 170). In 1981, the American investor, economist and one of the early proponents of supply-side economics, George Gilder (1939), published his international bestseller called *Wealth and Poverty*, where he explained that inequality is good and consistent with the disciplines and investment of economic and technical advance, and that economic growth required a selected group of people to become very rich. This group of special people would boost wealth creation, which is why they needed tax cuts and less regulation that would incentivize them to invest more and generate more jobs (Madland, 2015, p. 2,5).

In addition, the 1980s would see the rise of the principle of maximizing shareholder value. The first step was to maximize profits by cutting expenses inexorably: salaries, investments, inventories, middle-level managers, etc. Many employees were dismissed to re-hire them as non-unionized, with lower pay and lower benefits and wage increases were eliminated. Suppliers and their employees were squeezed, constantly cutting purchase prices, while pressing the government to reduce corporate taxes (H.-J. Chang, 2012, p. 41,42). In fact, it took less than 6 months in 1983 to reverse nearly 40% of the labor regulations made during the 1970s, while many public assets were freely passed to private hands, and companies were allowed to take all the benefits of patent rights without returning anything to the state.

⁶⁷ Despite the neoliberal preaching against government intervention, the process of neoliberalization would not have been possible if governments had not resorted to a wide array of tools to promote it: the liberalization of goods and capital markets; the privatization of resources and social services; the deregulation of business and financial markets; the reduction of workers' rights and labor activism; the lowering of taxes on wealth and capital, at the expense of the middle and working classes; the slashing of social programs and so on (Mitchell & Fazi, 2017, p. 9).

Moreover, a new wave of financialization came with a series of innovations in the financial sector, with new kinds of financial markets based on securitization, derivatives and all manner of futures trading alongside more sophisticated global interconnections (Harvey, 2011, p. 33, 52). Hence, banks, credit card businesses, insurance companies and other financial activities became an increasingly larger part of the overall economy. Since 1980, the relative size of the American financial sector has about doubled in the overall economy⁶⁸. In 1982, President Reagan deregulated banking when congress passed the Garn-St. Germain Depository Institutions Act, which removed restrictions on loan-to-value ratios for savings and loan banks. Reagan's budget cut also reduced regulatory staff at the Federal Home Loan Bank Board.

As a result, banks began to invest in risky real estate ventures. Financial firms also began to push for the repeal of the Glass-Steagall Act of 1933, which separated commercial from investment banking, prohibiting retail banks from using deposits to fund risky stock market purchases. Banks achieved their goal in 1999, when the Gramm-Leach-Bliley Act repealed the Glass-Steagall Act, allowing them to invest in risky derivatives to increase profit and shareholder value (Adameo, 2020a).

In addition, this rapidly growing financial sector was stoked by borrowed money, something that has historically been the catalyst for financial crises and recessions (Askari, 2019). Between 1943 and 1980, the number of bank failures and financial crises in the country was minimal. However, after 1981, government bailouts became the signature response to

⁶⁸ A problem of the financial sector is that it produces no goods that can be consumed, such as food, clothing, technology or medicines. As a result, an expanding financial sector without the matching growth of the “real” economic sector transforms productive economic activities to the business of a casino, using real resources but producing no tangible output (Askari, 2019).

market excess to several crisis such as the Continental Illinois (1984), discount window intervention to save floundering banks (late 1980s), market support after the 1987 crash, the savings and loan crisis of 1989-1992, intervention to save the Bank of New England and Citibank, the Federal Reserve-organized LCTM bailout, aid to Bear Stearns, Country wide Financial, Fannie Mae and Freddie Mac, and American Insurance Group (AIG).

In 2004, an FBI investigation highlighted the rampant fraud in the mortgage industry and warned about a potential “epidemic” of financial crimes, which, if not contained, could become the next savings and loans crisis (Frieden, 2004). There is also now a wide consensus that supply-side economics and excessive financialization helped to fuel the market crash and recession of 2008, by destabilizing consumer demand and encouraging the deregulation of Wall Street, and which eventually led to the mother of all bailouts (US\$ 700 billion) to save financial markets. These bailout practices are more related to an scenario of market socialism rather than market capitalism (Martinez, 2009, p. 209).

Ironically, despite Reagan’s small government rhetoric, budget deficits and the national debt skyrocketed about 3 times during his administration from approx. US\$ 930 billion to US\$ 2.7 trillion as a consequence of tax cuts, which made it harder to pay for education, healthcare and other social provision, while the military budget kept growing very rapidly. In fact, Reagan’s deficit spending broke all previous records, spending twice as much as the previous 39 administrations combined. The government also implemented a strong monetary policy to fight inflation and tried to artificially stimulate the economy in what economist call a Keynesian stimulus; it was hardly a vote of confidence for laissez-faire economics (Martinez, 2009, p. 218).

The per capita income growth in the U.S averaged 2.6% during the 1960s and 1970s, but this figure decreased to 1.6% during 1980s and 2009, which clearly shows that the American

economy grew more rapidly during the Keynesian period, when the middle class was stronger (Chang, 2012, p. 20). Despite the fact that productivity grew by 45% between 1980 and 2000, the median household income was lower in 2013 than it was in 1989. From 1946 to 1973, real median household income surged 74%, but the numbers have not risen significantly for nearly 40 years (Askari, 2019).

Today's real average wage (that is, the wage after accounting for inflation) has about the same purchasing power it did 40 years ago as today's average hourly wage has just about the same purchasing power it did in 1978. Indeed, the US\$4.03-an-hour rate recorded in January 1973 had the same purchasing power that US\$23.68 would today, whereas US\$232 in 1979 had the same purchasing power as \$840 in today's dollars (Desilver, 2018). Furthermore, the share of American adults who live in middle-income households has decreased from 61% in 1971 to 51% in 2019, and median incomes for male workers now in their 30s are about 12% lower than the income was for their father's generation at the same age (Horowitz et al., 2020)(Madland, 2015, p. 34).

Krugman argues that since the 1980s, labor unions have been operating under a deeply hostile corporate environment aiming to undermine their collective bargaining power. As a result, labor union membership dropped from 20.1% of the labor force in 1983 to 11% by 2018⁶⁹. Income gaps have widened as union membership has declined as evidence shows that

⁶⁹ While under the neoliberal state, individuals are supposedly free to choose, they are not supposed to choose to construct strong collective institutions with the aim of forcing the state to intervene in the market. This creates the paradox of intense state intervention, where a government faced with social movements that seek collective interventions, is forced to intervene and repress, thus denying the very freedoms it is supposed to uphold (Harvey, 2011, p. 69).

unions not only reduced wage inequality, but at least 10 to 20% of wage inequality in the U.S can be attributed to the decline of unions (Martinez, 2009, p. 220).

As the social compact between capitalists and workers created during the decades before 1980 was dismantled, the average income of middle-class workers stagnated, CEO compensation increased from less than 30 times that of the average worker in 1978 to over 350 times in 2007 (Madland, 2015, p. 13). Furthermore, between 1990 and 2011, the period directly after welfare reform ended cash entitlement for poor families for children, the number of families living on \$2 or less in cash income (per person, per day) rose from 636,000 to 1.65 million. This represents a growth rate of 159%. In 1996, households in extreme poverty made up just 1.7% of all households, while in 2011 they reached 4.3% (*Extreme Poverty on the Rise in the United States*, 2013).

A study by *The Economist* found that between 1997 and 2012, two-thirds of industries became more concentrated, representing a dangerous rise of monopolies and argued that the concentration of economic power brings with it higher prices for consumers, increased economic inequality, and a less dynamic economy. In addition to this fact, the cost of middle-class basics like healthcare have risen much faster than inflation, and some basics like housing and education have risen at double the rate of inflation over the past 4 decades (Sitaraman, 2019).

Regarding housing, deregulation and easy money caused the industry of home loans and home refinancing to explode, with mortgage debt as a percentage of GDP increasing from 29.5% in 1967 to 47.2% in 1997, to an astounding 80.4% in 2007, right before the 2008 financial crash (Martinez, 2009, p. 225).

In what refers to education, the cost of college has increased dramatically during this period, which is why student loans now represent the largest share of U.S. non-housing debt.

While many baby boomers and people from the Generation X were able to graduate from college with little to no debt, this has become nearly impossible for current students. Since between 1989 and 2016, the cost for a four-year degree doubled, even after inflation, meaning that the cost to attend a university increased nearly eight times faster than wages did. The comparable cost for the same four-year degree in 1989 was \$26,902 (\$52,892 adjusted for inflation) but today it is around \$104,480, while on the other hand, the real median wages only went from \$54,042 to \$59,039 between 1989 and 2016 (Maldonado, 2018).

Regarding healthcare, the annual health care cost of \$10,739 per person was in 2017 versus just \$147 per person in 1960, which also indicates that health care costs have risen faster than the median annual income (Amadeo, 2020a). According to the Journal of the American Medical Association, per capita spending for prescription drugs was \$1,443 in the U.S., compared to a range of \$466 to \$939 in other wealthy countries, and as of 2017, nearly 9% of the U.S. population did not have health insurance of any kind, leaving about 27 million people without access to healthcare. At the same time, between 1980 and 2005, health care cost rose by 78% with sky-high prices of prescription drugs, medical procedures and attention make U.S healthcare the world's most expensive, where it is spend twice as much on health as 10 other rich countries (Glenza, 2018).

As a result of the increasing cost of life and stagnant wages, the average debt of the middle-class families has more than doubled in the last 4 decades, as households debt went from 47% of GDP in 1980, to 96% by the mid-2000s, representing an increase of 111%, while personal bankruptcies increased by 610% from 287,000 in 1980, to 2,039,000 in mid-2000s (Moore, 2009).

After WWII until the 1980s, American had the highest life expectancy of any country in the world. In 2013, this reached an average of 78.9 years. However, the U.S is the only wealthy country in the world where the life expectancy is moving backwards as it has been declining since 2014 to reach 78.5 years in 2019, putting the U.S at the bottom of the list of countries with similar per capita incomes, according to a recent study published by the Journal of the American Medical Association. As a matter of fact, the U.S is currently ranked in the mid-40s globally in terms of life expectancy alongside countries such as Lebanon, Cuba, and Chile, which have GDPs and per capita incomes that fall far short to those of the U.S. It is claim that this decline has about 35 different causes, but the primary caused appear to be drug overdose, alcohol abuse and suicide, known as “deaths of despair” (Woodward, 2019). Coincidentally, the sales of antidepressants in America has increased by 305% between 1980 and 2008 (Moore, 2009).

In what concerns to inequality, it can be said that the neoliberal wave and the implementation of supply-side economics achieved their objective. In 1928, the top 1% of American families received 23.9% of all pretax income, while the bottom 90% received 50.7%. But the Great Depression and WWII dramatically reshaped the nation’s income distribution. By 1944 the top 1%’s share was down to 11.3%, while the bottom 90% were receiving 67.5%, levels that would remain more or less constant for the next three decades, and in 1976, the wealthiest 1% concentrated about 8.5% of the national income (Desilver, 2018).

However, in the last 4 decades, the share of aggregate income going to middle-class households fell from 62% to 43%, while that held by upper-income households increased from 29% to 48%. From 1983 to 2016, the share of aggregate wealth going to upper-income families increased from 60% to 79%, whereas the share held by middle-income families has been cut nearly in half, falling from 32% to 17%. In 1989, the richest 5% of families in the country had

114 times as much wealth as families in the second quintile, by 2016, this ratio had increased to 248, and upper-income families were the only income tier able to build on their wealth from 2001 to 2016, adding 33% at the median. On the other hand, middle-income families saw their median net worth shrink by 20% and lower-income families experienced a loss of 45%. Today, wealth in the U.S is distributed in such a highly unequal fashion that it is estimated that the wealthiest 1% of families hold about 40% of all the nation's wealth and the bottom 90% of families hold less than 25% of all wealth, reaching levels of inequality not seen since 1928, right before the crash of 1929 (Horowitz et al., 2020).

Conversely to the trends of average wages, the Dow Jones experienced a value increase of 1,371% between 1980 and 2008 (Moore, 2009), and, not surprisingly, the number of billionaires in the U.S multiplied by 10 between 1987 and 2012, passing from 41 to 425 billionaires. By the beginning of 2018, Forbes declared that the country's three richest individuals (Bill Gates, Warren Buffet and Jeff Bezos), collectively hold more wealth (US\$ 248.5 billion) than the bottom 50% Americans, a total of 160 million people or 63 million American households, also finding that a fifth of Americans have zero or negative net worth (Kirsch, 2017). According to a study from *The Economist* indicated that out of any high-income nations, the U.S had the highest after-tax and transfer level of income inequality, with a Gini coefficient⁷⁰ of 0.42 (The Economist, *Inequality in America: Gini in the bottle*, 2013), putting the

⁷⁰ Gini index measures the extent to which the distribution of income (or, in some cases, consumption expenditure) among individuals or households within an economy deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of total income received against the cumulative number of recipients, starting with the poorest individual or household. The Gini index measures the area between the Lorenz curve and a hypothetical line of absolute equality, expressed as a percentage of the maximum area under the line. Thus a Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality (*GINI index (World Bank estimate)—Country Ranking*, n.d.).

country in the same tier with countries such as Madagascar (0.426), Democratic Republic of Congo (0.4210) and Papua New Guinea (0.419), and way below the top nations (with less inequality) such as Sweden (0.292), Denmark (0.282), Netherlands (0.282), Iceland (0.278), Belgium (0.277), Norway (0.275), Finland (0.271), Slovakia (0.265) and Czech Republic (0.259) (World Bank, n.d.).

The U.S was not alone in this trends, other allied countries that quickly embraced neoliberalism also ended up showing similar results. For instance, in Britain, the top 1% captured more than 14% of national income, more than double the amount they used to hold in the late-1970s. In Australia, the top 1% controlled about 5% of national income in the 1970s and doubled that to 10% by the late 2000s (Sitaraman, 2019). Despite the claims of the neoliberal agenda about the benefits of inequality, it is now clear that high levels of inequality harm the middle-class by reducing opportunities, eroding trust, destabilizing the consumer demand and significantly increasing the levels of household debt.

Interestingly, in 2005 the CitiGroup Corporation published an extensive report to its shareholders analyzing the socioeconomic trends in the U.S and the world. In this report, CitiGroup defines the U.S not as a democracy but as a plutonomy or plutocracy, which represent a scenario where the government is controlled exclusively by the wealthy either directly or indirectly, resulting in policies exclusively designed to assist the wealthy. They claimed that in such as context, there is no such thing as “the U.S. consumer”, there are rich consumers, few in number, but disproportionate in the gigantic slice of income and consumption they take. Then, there are the rest, the “non-rich”, the multitudinous many, but only accounting for surprisingly small bites of the national pie (Kapur et al., 2005).

This makes even clearer that an economy supercharged by deregulation and debt worked to undermine the laws of justice that Adam Smith argued were necessary for markets to function efficiently and equitably, by eroding the institutions that served the public interest (Martinez, 2009, pp. 218, 219). In that sense, it can be stated that after decades of consolidating a strong middle-class through pragmatic policies, from 1980 onwards, the U.S had been getting its economic policy wrong, as for the first time in the history of the country, the government became wrapped in an ideological vision and abstract economic theories, instead of been driven by pragmatic assessments that worked so successfully until then. Hence, many analysts now claim that the role of the government under Regan was not really reduced, the reality of the Reagan administration is that it simply altered who benefited from state intervention rather than reducing state intervention per se (Mitchell & Fazi, 2017, p. 96).

The Question about Free Trade and International Aid

The problems about the exposure to free trade and its effects on the process of moving towards high value-added activities has already been discussed through the present study. Nonetheless, there are some other aspects to analyze in what refers to the modern versions of free trade that keep being implemented around the globe, especially those between developed and developing nations. As stated before, a nation that chooses to close itself to the world and pursue a strategy of autarchy will most likely become stuck in underdevelopment like in the case of North Korea. International trade has been fundamental in the industrial development of the rich Western nations and of the East Asian Tigers, let alone China and India. However, as in many other aspects, extremes of certain spectrum do not tend to have good long-term consequences.

Besides the flaws of the theory of comparative advantage in order to build up industries, trade liberalization is supposed to enhance a country's income by forcing resources to move from less productive uses to more productive uses, but moving resources from low-productivity uses to zero productivity does not enrich a country, and this is what had happen several times as the immediate impact of trade liberalization was that inefficient industries still growing in developing countries closed under pressure from international competition (Stiglitz, 2018, p. 43).

The attempts by developing countries from the 1950s to 1970s to emulate the experience of the advanced nations by create middle-income societies through industrialization were destroyed by opening too sudden to free trade in the 1980s and 1990s. In this regard, the Swedish Economist and Nobel Prize winner, Gunnar Myrdal (1898-1987) warned that excessive trade liberalization would tend to increase the already existing differences in incomes between rich and poor countries. Unfortunately, the developments of the 1980s and 1990s confirm Myrdal's assertion as rich nations seem to converge into a cluster of wealthy countries, while the poor ones are relegated as the income gap further increases (Reinert, 2008, p. 47).

In 19th century, the gap proportion in per capita incomes (PPP) between rich and poor countries was between 2 or 4 to 1. Today, it is 50 or 60 to 1, and even the gap between rich and high middle-income countries is 5 to 1. This situation also increases the productivity gap between both groups of countries, which is now at historical highs. Ironically, this strengthens the argument in favor of trade protection for developing countries as they would need to impose much higher rates of tariff than those used by developed countries in the past, if they are to provide the same degree of protection to their industries as the ones that rich nations once enjoyed (H.-J. Chang, 2002, p. 67).

Although free trade might bring some benefits like boosting consumption within a country, in the long term the downsides will most likely outpace the benefits if a country has not yet built a strong industrial sector with a stable middle-class and reliable institutions. Without these elements, a free trade policy is definitely not the best way to develop an economy as it will most likely condemn developing countries to specialize in sectors that offer low productivity growth and thus low growth in living standards, like agriculture and natural resources.

Most of the gains from free trade in developing countries tend to get concentrated in relatively small groups of nations (and small groups within the nations) because only a few developing countries have economies strong enough of taking advantage of free trade at some scale. This is why it is often claimed that Africa is not even in the international trade game, as its level of participation is the lowest. Hence, the economic benefits it might get are drastically reduced.

In addition, evidence shows that incomes and productivity do not always exhibit a tendency to converge as markets for goods, capital, and technology become more integrated (Rodrik, 2019, p. 4) and that free trade eliminates the protected middle ground for developing economies, which do not have globally competitive industrial sectors but were still better off having such sectors, although they were inefficient ones, than not having them at all, because the productivity of modern industry is so much higher than that of agriculture that it raises average income even if it is not globally competitive. This explains why the incomes and growth rates of developing countries grew much faster during the decades of industrialization before 1980 (Fletcher, 2011b).

Trade liberalization does not guarantee that the losses suffered by an economy will be compensated by the gains, since this is not automatic in the labor markets. The problem here is

that most developing countries lack the necessary compensation mechanisms, as they have welfare states that are either weak or in many cases virtually non-existent. Also, free trade has enabled an institutional race to the bottom among developing countries, since they are many times tempted to lower their standards and further relax their regulations in order to attract capital, FDI and professional (H.-J. Chang, 2009, pp. 72, 74); Rodrik, 2019, p. 5).

Another important question in the current economic context is what concerns Free Trade Agreements (FTAs). Bilateral and multilateral FTAs have become so common that in 1995, the American-Indian economist and Columbia University professor, Jagdish Bhagwati (1934) coined the term “Spaghetti Bowl” to refer to the proliferation and crisscrossing of FTAs around the world that would ultimately foster the adoption of trade barriers and reduce the overall benefits of trade (*Spaghetti bowl effect*, n.d.).

Nations certainly do not need free trade agreements to have free trade, they just need to drop their tariffs and barriers to the flows of goods and services. However, asymmetrical FTAs⁷¹ have become not only more common but also more complex with approx. 90% of their legal content concerning other things besides trade (Fletcher, 2011a, p. 185). For instance, the US–Israel Free Trade Agreement of 1985, was the first bilateral trade agreement the U.S concluded

⁷¹ A clear example of the devastating effects that asymmetric trade agreements can have on developing countries is that of the Treaty of Methuen of 1703 between England and Portugal. After the implementation of the treaty, Portugal open itself to the importation of English woolen cloth, while England agreed to admit Portuguese wines at a tariff one-third less than that applied to other wine-producing nations. At this time, woolen cloth was considered a high value-added industrial good, while wine was not. For England, the treaty just switched suppliers as it did not produce wine, but it admitted a deluge of cheap English cloth into Portugal, which would subsequently destroy the previously promising Portuguese textile industry. The English eventually took control of Portugal’s vineyards as their owners went into debt to London banks. As textiles were (as they remain today) the first step towards more sophisticated industries, the treaty ended up preventing Portugal’s further industrialization. Not until the 1960s did any Portuguese government make a serious attempt to escape out of this trap and to this day, Portugal has not recovered its 17th-century position relative to other European economies, remaining as the poorest country in Western Europe (Fletcher, 2011a, p. 113).

in the postwar period. The document is quite a short with less than 8,000 words in length, containing 22 articles and three annexes, most of which are devoted to free-trade issues such as tariffs, agricultural restrictions, import licensing, and rules of origin.

However, FTAs today go much beyond trade aspects, they cover regulatory standards, health and safety rules, investment, banking and finance, intellectual property, labor, environment, and many other subjects. Recent FTAs now are as 10 times as long as they used to be 30 years before. For instance, the US– Singapore Free Trade Agreement of 2004 has 70,000 words, 20 chapters, more than a dozen annexes, and multiple side letters. Only seven chapters cover conventional trade topics while the others deal with anti-competitive business conduct, electronic commerce, labor, the environment, investment rules, financial services, and intellectual property rights. This last component (IPRs) takes up a third of a page (and 81 words) in the US– Israel agreement but it takes 23 pages (and 8,737 words) plus two side letters in the US–Singapore agreement.

Many of these FTAs have been criticized due to the overwhelming influence and bargaining power that the developed countries negotiators, whose delegations are often numerous and well supported, have in comparison to that of developing countries⁷². Furthermore, many of the additional chapters have been also criticized for the excessive focus they have in setting a context that provide enormous benefits to foreign investments, like the right for transnational corporations to sue national governments. This FDI and protection of IPRs

⁷² Nobel Economist Joseph Stiglitz (2018, p. 20) indicates that modern globalization was not based on free trade but on managed trade, managed for special corporate interests in the developed countries, and that FTA are actually not about trade, because if there were, they would be short, each country giving up its tariffs, its non-tariff barriers and its subsidies. However, he criticizes the fact that the now failed Trans-Pacific Partnership Agreement (TPP) had over 6000 pages.

hugely favor developed countries since they are the ones that generate the vast majority of FDI and patents in the world. It is simple just to wonder how many Peruvian, Nigerian, Nepalese, Guatemalan, Congolese, Ethiopian or Colombian companies invest in the U.S, Europe, Japan or Australia, as well as how many patent-deserving inventions are made by the former group of countries every year in the fields of high-tech, chemicals or pharmaceuticals.

Unfortunately for the developing countries, these FTAs as well as the rules of the WTO now make it much harder for them to emulate the experience and policies that developed countries adopted during their developing stages since many of the trade strategies used by these countries in the past like incentives for domestic investment in targeted industries, limitations on foreign ownership, export requirements for foreign-owned companies, subsidies to industries and minimum level of domestic content are now forbidden by these FTA (George, 2010, p. 116).

Also, it is often argued that free trade hugely benefits developing countries by granting them access to the wealthy and large markets of the developed world. However, both the WTO rules, rich nations' trade policies, and FTAs have continuously favor free trade mainly in the areas where the rich countries are strong (industrial and sophisticated goods, and advanced services) but not where they are weak (mainly agriculture and textiles) (H.-J. Chang, 2009, p. 13). A more open world agricultural market would allow them greater opportunities to increase their exports and to participate more in this era of globalization. However, according to Rodrik (2006), there is nothing in the historical record to suggest that poor countries require very low or zero-trade barriers in the advanced economies in order to benefit greatly from globalization.

Additionally, in a clear contradiction with the advocacy for free trade, protection in agriculture by developed countries is still quite high, and so remains as a continuous constraint on developing and least developed countries, considering that most of them have a

disproportionate percentage of their exports in agriculture (Diao et al., 2002). For instance, in 2018, the European Union subsidized more than 6.5 million farmers with more than 41 billion euros (Verwoerd, 2019), while the U.S federal government spends between US\$ 16 to US\$ 20 billion a year on subsidies for American farms (Boyce, 2019). This practice contrary to the principles of free trade, helps American and European farmers to stay artificially competitive in the world markets by significantly lowering the price of their products, many times below the levels that farmers in developing countries can compete with.

As stated before, several resistance movements against the spread of neoliberalism were created, but the one called La Via Campesina (the peasant way) is considered by many to be the most important transnational social movement as it gathers more than 148 farmer organizations in 69 countries, representing more than 500 million people with common social and economic struggles on all the continents. The group originated in Latin America in the 1980s, as neoliberal economic policies began cutting back or eliminating the institutions that supported peasant and family agriculture in developing countries.

In the 1980s, peasant organizations faced rapid decline of crop and livestock prices, largely due to globalization, felt through market-opening under structural adjustment and free trade agreements (GATT), WTO, and (NAFTA), as well as the budget-cutting and free market conditionality forced on their governments. In 1993, “La Via Campesina” gathered peasant and farm organizations from around the world and formally committed to work collectively to defend their rights in the context of trade liberalization. They claimed that peasants and farmers have not had a voice in the design of global agrarian policy and trade negotiations. Members from the organization also staked out their differences from foundations and aid agencies, refusing to accept resources that come with compromising conditions attached, and argued that farming is

about much more than trade but about inclusive local and national economic development, for addressing poverty preserving rural life, and managing natural resources in a sustainable fashion.

In that way, the organization claimed that farmers had the right to protect domestic markets and to have public sector budgets for agriculture that may include subsidies. In 2008, for the first time La Via Campesina defined neoliberal capitalism as the ultimate source of the problems facing the rural world and identified Transnational Corporations (TNCs) and the rules of the WTO as the worst enemy of peasants and farmers around the world (Martínez-Torres & Rosset, 2010).

International Aid

Despite the good intentions and benefits that derived from the aid received by developing countries from the International Development Agencies of developed nations, there has been some criticism about how some developed countries have used their aid budgets and access to their home markets as carrots to convince developing countries to adopt neoliberal policies. Besides this, it is undeniable that several programs and aid budget from these agencies have contributed and continue to contribute to the development process of many poor and developing nations around the globe as rich nations give more than US\$ 125 billion in aid each year. However, it seems like the economic globalization based on free trade and free markets might be indirectly undermining the efforts from international aid to promote economic prosperity in the developing world.

A recent study published by the U.S-based Global Financial Integrity (GFI) and the Norwegian School of Economics, which is considered as one of the most comprehensive analysis of resource transfers to date, added up all the financial resources that are transferred between

developed and developing countries every year including aid, FDI, trade flows, and also non-financial transfers like debt cancellation, workers remittances, and unrecorded capital flights. The results of the study showed that, in fact, the flow of money from rich to developing countries pales in comparison to the flows that go the other way around. For instance, in 2012, developing countries received a total of US\$1.3 trillion (including all aid, investment, and income from abroad), approx. US\$ 3.3 trillion flowed out of these countries. This means that developing countries sent US\$ 2 trillion more to the developed world than what they received, and since 1980, developing countries have seen around US\$ 16.3 trillion flowing out of them towards the developed world.

In addition to this, the study estimated that developing countries also lost around US\$ 13.4 trillion to the developed world in what regards to unrecorded capital flights since 1980, which are outflows that take place mostly through the international trading system. In that sense, the calculation indicates that for every US\$ 1 of aid that developing countries receive, they lose US\$ 24 in net outflows. This is why some critics argue that the modern international economic system since the rise of neoliberalism operates under a sort of neocolonial structure, indicating that rich countries continue to enrich themselves by extracting resources from poor nations, just as it happened during the colonial times (Hickel, 2017).

Moreover, as discussed in previous chapters, many of the international aid comes with a approach based on palliative economics and “push” economic strategies, which attack the symptoms of poverty without at all attacking its causes (H. Chang & Grabel, 2005, p. 471) by just providing resources such as cash transfers to governments with no other plan or strategy attached. Although it is reasonable to assume that poor countries need access to resources, this approach often only achieve temporary results or reliefs.

Deindustrialization and the return to Natural Resources: Cases in the developing world

According Reinert (2008, p. 152), the productive structures and economic dynamics that the programs and policies of the Washington Consensus have instituted throughout the developing world have had the exact opposite effects of the programs and policies instituted in post-war Europe during the Marshall Plan as well as Japan, Taiwan and South Korea. In that sense, and as policymakers of the past such as Hamilton, Walpole and List warned, premature or excessive trade and markets liberalization could condemn nations with unprotected or immature industrial sectors to be forced to rely on natural resources and commodities due to the destruction of their domestic industries, as they were exposed prematurely to the fierce international competition that would create asymmetric trade relations between industrialized-rich nations and the developing ones. Although the deindustrializing effects of the neoliberal era were felt throughout many developing countries, there are some cases that are particularly representative and interesting to analyze.

Peru. Like the rest of Latin America, Peru embarked on an ambitious program of industrialization in the late-1950s. The country instituted high tariffs on imported industrial goods and numerous industries were established, which boosted job creation and cause wages levels to rise. Between 1950 and 1975, manufacturing grew steadily at a rate of 6.6% annually and GDP grew at the average annual rate of 5.4%. Real wages peaked in the mid-1970s when Peru did everything wrong according to the Washington Consensus logic (Jomo Kwame Sundaram & Chowdhury, 2011, pp. 25). However, by the end of the 1970s, the SAPs imposed on many Latin American countries forced Peru to open its economy. Instead of perfecting the

industrialization process and continuing with the country's modernization, the multilateral institutions imposed reforms and policies of liberalization and deregulation, and of minimizing the economic role of the State (Jiménez, 2017).

As a result, just within a few years, the manufacturing industry largely died out, causing real wages to decrease dramatically, while the lack of demand from the manufacturing sector prevented the economy from upgrading its knowledge-intensive sector in the way it happened in the rich countries (Reinert, 2008, p. 162). The 1980s would be a period of economic stagnation and crisis, during which manufacturing decreased at the rate of 0.8% per year. At the height of industrialization in 1972, wages amounted to 77.7% of GDP, but as employment shrank rapidly as the country prematurely opened up to free trade, in 1990, the share of wages in GDP had been halved to 42.4%, meaning that total wages had shrunk by 45% in less than 2 decades. (Jomo Kwame Sundaram & Chowdhury, 2011, pp. 25, 26).

According to World Bank data (2020), GDP per capita shrank by 12% in 1983 and 14% in 1989. During those same years, the total GDP shrank by 10% and 12%, respectively. The share of industrial value-added goods as a percentage of GDP extraordinarily peaked to 61% in 1977, but was reduced to 35% in 1979, 25% in 1991 and 31% in 2018. According to Reinert (2008, p. 178), during the period of 1950-1997, a 1 percentage point decrease in manufacturing as a share of GDP led to a fall in white-collar wages by 5.4% and in blue-collar wages by 7.5%. Conversely, when manufacturing increased by 1 percentage point in total GDP, white-collar and blue-collar wages increased by 10.6% and 15.5% respectively.

The reforms hit Peru on two fronts simultaneously, with deindustrialization plus downsizing of the public sector, and by killing these 2 sectors with strong union power (one private and other public), wage levels collapsed. (Jomo Kwame Sundaram & Chowdhury, 2011,

pp. 25, 26). Moreover, trade liberalization drove Peruvian farmers from their own markets as American and European producers exported their surplus milk at subsidized prices (Reinert, 2008, p. 178), which the Peruvians farmers just could not compete with. In addition to the havoc created in both the industrial and agricultural sectors, the wave of financial liberalization and deregulation of capital flows, ended up creating one of the most severe episodes of hyperinflation, which reached 7,400% in 1990 (World Bank, 2020), dragging the country into a deep economic crisis. It is often argued that the social and economic calamities of the 1980s, helped to fuel the rise of the Maoist terrorist group known as “Sendero Luminoso” (Shining Path), which would engage in a guerrilla war against the Peruvian State between the mid-1980s and the mid-1990s. A conflict that caused the death of more than 70,000 people.

These conditions set the beginning of an accelerated and premature deindustrialization process, premature because the participation of manufacturing in the generation of employment and GDP was systematically reduced, before levels of per capita income comparable to those of developed countries when they started to move towards the service economy have been reached. In countries like Peru, deindustrialization does not occur, as in the case of advanced countries, due to the presence of significant technological progress.

Today, after decades of neoliberal policies, and despite important achievements in economic growth and poverty reduction, which were mostly related to the high price levels of commodities during the 2000s, Peru became more dependent on primary production and natural resources from 1990 onwards. The economy now faces again structural problems that prevent it from growing steadily with an unfavorable international context for the production and export of minerals, which reveals the absence or weakness of manufacturing to boost economic growth and employment expansion beyond commodities. The extremely high percentage of informal

workers (73.7% of total employment) of low qualification and low income reveal the inability of the primary export model to place the country along a strong and sustainable development path (Jiménez, 2017). The usual argument in favor of the disappearance of Peruvian industries is that they were inefficient and not competitive (as American, German and Japanese industries also were during their early stages), but this inefficient industrial sector was able to create a wage level that was about twice as high as what today's globalized economy is able to deliver in Peru (Reinert, 2008, p. 162).

Mexico. In 1984, the World Bank granted for the first time a loan to a country in return for structural neoliberal reforms. This country was Mexico, which opened to the global economy. As in many other cases, the results were far from those promised. Between 1983 and 1988, Mexico's per capita income fell at a rate of 5% per year, the value of workers real wages fell between 40 to 50%, and inflation, which had oscillated 3-4% per year in the 60s, had gone up to 100% in 1980s. State expenditure on public goods declined as well as the quality of public education and health care, both which either stagnated or declined (Harvey, 2011, p. 100).

By contrast, during the times of industrialization and protectionism (1955-1982), Mexico's per capita income had grown much faster than during at an average of 3.1% per year (H.-J. Chang, 2009, p. 68). However, optimism returned when in 1994, the North American Free Trade Agreement (NAFTA) was instituted. Mexicans were told that NAFTA help their economy and wages to gradually converge with America's advanced economy, as they were given access to the largest economy in the world. Although there were benefits like Mexico's exports growing at a rapid annual rate of around 10% per year in the 1990s and an increase of FDI, economic

growth during the first decade of NAFTA was slower than decades prior to 1980s (Stiglitz & Charlton, 2005, p. 23).

The income gap between the U.S and Mexico grew by over 10% during the first decade of NAFTA, as real wages in Mexico at the end of the decade were lower as per capita income grew only at a rate of 1.8% (Fletcher, 2011 a, p. 160). In fact, between 1990 and 1999, manufacturing jobs declined, and manufacturing wages fell 21% and the country's trade deficit against the rest of the world actually worsened.

The agricultural sector was also hit hard, as Mexican farmers had been made worse off as subsidized American agriculture products flooded the market and lowered the price. NAFTA turned Mexico from a food exporter to a food importer overnight and over a million farm jobs were wiped out by cheap subsidized American food exports (Fletcher, 2011a, p. 161). As many peasants were forced off the land, unemployment increased and in the already overcrowded cities the informal economy grew.

Economic and social tensions would lead to the Zapatista rebellion in Chiapas 1994 and the Tequila crisis in 1995. Several and more frequent crime waves that followed turned Mexico City from one of the most safe and calm into one of the most dangerous cities of the region within a decade (Harvey, 2011, p. 100). Moreover, during 2001 and 2005, Mexico's growth performance was miserable, with an annual growth rate per capita of only 0.3%. Nonetheless, as inequality exploded, by 2005, Mexico was within the Forbes list of the countries with more billionaires (H.-J. Chang, 2009, p. 68).

A characteristics proposal that came out of NAFTA was the spread of the so-called "Maquiladoras" (assembly factories) in many Mexican regions, which were supposed to boost industrialization and increase the nation's wages and productivity. However, as the American

Journalist Willian Greider (1936-2019) said: “The Mexican maquiladora cities thought they were going to become the next South Korea, but instead they may be the next Detroit”. In fact, the average maquiladora wage is \$ 1.82 per hour, and worker’s rights, wages and benefits tend to be suppressed. The sector that is also isolated from the rest of the Mexican economy, contributing little to it (Fletcher, 2011a, p. 161).

According to Stiglitz (2005, p. 24), there are 3 main lessons to be learned from Mexico’s experience in the last decades. First, trade liberalization by itself clearly does not ensure growth. Second, Mexico did poorly against China because this country was investing heavily in infrastructure, innovation and education, while Mexico cut tax revenues, reduced support for farmers and industries, and disregarded the adoption of a comprehensive industrialization strategy. Third, NAFTA was not really a Free Trade Agreement, as the U.S retained its agricultural subsidies and continued to use effective non-tariff barriers to keep out some of Mexico’s products.

Interestingly, a comprehensive study conducted by the Institute of Economic Research at the National Autonomous University of Mexico (UNAM), found that Mexican migration trends to the U.S maintain a close relationship with the restructuring of the economic model of the last 35 years. The balance of this period is that Mexican emigration to the US, far from observing a tendency to its decrease, has become part of the most important bilateral migration system on the planet, with more than 33.5 million people (35% of them born in Mexico and 65% from Mexican descendance).

The strong impulse began in the 1980s, since between 1980 and 1990 Mexican migration to the U.S increased by 93%, from 1990-2000 by 100% and from 2000 to 2010 by 24%. From another perspective, in 1970 there were approx. 936,000 Mexican immigrants in the

U.S, in 1980 there were around 2.4 million, in 1990 around 4,6 million, and by 2000 the number exploded to 10 million (Roldán, 2015).

Zimbabwe. This country's economy was diversified with a manufacturing sector producing over 8,000 different products and accounting for 26% of GDP in 1990. The country also had strong commercial sector with a textile, clothing and footwear sectors that were fairly efficient, and had a relatively moderate debt-to-GDP ratio of 71% in 1989, and its currency was not highly overvalued. The country had developed capital markets and infrastructure in comparison to other Sub-Saharan African states and was also politically stable and had a competent bureaucracy, as evidenced by continued administration of comprehensive economic controls.

When Zimbabwe formally adopted its own Structural Adjustment Program, the government and analysts predicted that manufacturing would grow more rapidly than other sectors, at 6% per year, during the reform program from 1990 to 1995. Considering that the textiles, clothing, and footwear industry had initially drove export success in East Asia, they were expected to lead industrialization after the implementation of the SAP in Zimbabwe. During the 1980s, in response to incentives, exports of textiles and clothing had grown at 12% rate and accounted for 19% of manufacturing output and 26% of formal sector manufacturing employment by 1990. However, after 1994, Zimbabwe's textile, clothing, and footwear industries began to collapse, and manufacturers were desperately calling for tariff protection. One of the two largest textile producers closed, cutting over 6,000 jobs.

In fact, textile employment fell from 25,320 to 12,427 between 1990 and 1995. The industry's output contracted by 61% in 1995. Ironically, this was the area in which Zimbabwe

was meant to have a comparative advantage. While the decline in clothing and footwear was less dramatic, clothing employment fell from 24,000 to 17,000 between 1991 and 1996. The reforms also hit the agricultural sector hard, as subsidies were eliminated, crop yields for small-scale farmers fell. Simultaneously, in response to liberalized prices, many farmers decided to shift their production from low-priced food products to lucrative tobacco and horticultural crop production for export, which ultimately driven up food prices in the country.

Regarding the financial capital flows, money began to flow to elite luxury imports rather than to productive investment, and speculative investments, such as those in real estate began to proliferate, driving up interest rates in the process. Additionally, expenditures on education and health fell by 20% and 30% respectively in real terms per capita since the start of the reforms. Consequently, life expectancy in the country fell from 61 to 53 years just between 1990 and 1996 (Carmody, 2008).

Ghana. In 1983, Ghana implemented its own Structural Adjustment Program (SAP) as it promised to promote growth and ultimately reduce poverty. As in many other cases, Ghana's SAP was designed to privatize state-owned enterprises, eliminate trade barriers, establish free trade zones and promote the inflows of FDI. As a result, the manufacturing share of the country's GDP, fell consistently from its height of 12.44% in 1985 to about 6.62% in 2012.

Liberalization caused industrial sector employment to plunge from 78,700 in 1987 to 28,000 in 1993, and has worsened since then, declining annually by 4.6% on average. Ghana's growth in manufacturing value-added was significantly negative, around -3.5% during the 1990s, implying a severe de-industrialization process. Globalization, economic liberalization and trade openness have been identified to cause the rising deindustrialization trend in Ghana but the rising

deindustrialization trend is worsening due to government policy shortfalls, with a lack of clear industrialization policy and prioritization of government goals, something that history has proven to be fundamental in order to achieve development (Fletcher, 2011a, p. 27)(Appiah-Kubi, 2014).

Mongolia. After WWII, Mongolia embarked into a slow but successful industrial and diversification process. The share of agriculture in the nation's GDP declined from 60% in 1940 to 16% by the mid-1980s, meaning that the production of diversified and industrial goods grew significantly during this period, causing the country to rely less and less on commodities and natural resources. After the implementation of the SAP of 1991, Mongolia became an exemplary case for the Washington Institutions as the country faithfully followed the prescriptions of the Washington Consensus to minimize the state and implement a "laissez-faire" environment.

The country abruptly opened and liberalized its economy. However, almost half a century of industrialization in Mongolia was virtually destroyed over a short period of just 4 years between 1991 and 1995. The combination of deindustrialization and withdrawal of the state created a scenario of widespread unemployment due to the fact that industrial production went down by more than 90% in the course of just 3 to 4 years. As a result, Mongolia was driven back from the age of industry to the traditional age of pastoralism in the country. Dozens of thousands of people were forced to return to their ancestral way of living: nomadic pastoralism. The fact that the number of grazing animals has risen from 12 million to 33 million in a period of 10 years supports this view. This shows that countries like Peru, Ghana, Nigeria, Mexico, Zimbabwe and Mongolia were richer when they did everything wrong according to logic of neoliberalism and the Washington Consensus and protected their inefficient industries (Reinert, 2008, pp. 174, 175).

Nigeria. While economic liberalization policies were put in place from the late 1970s, the formal adoption of economic globalization in Nigeria began with the introduction of the Structural Adjustment Program (SAP) of 1986. The immediate were the shortage of foreign exchange and the scarcity of imported raw materials and spare parts for industrial production, which were followed by a sharp reduction in the use of installed capacity of most industrial enterprises to levels ranging between 20% to 40%. About 101 companies surveyed by the Manufacturers Association of Nigeria had shut down for periods or permanently by 1983, with about 200,000 workers laid off (Onyeonoru, 2005).

Contesting some Neoliberal Concepts: Gradualism and Prudence

Globalization per se and all that comes with its in terms of trade, investments and capital flows is neither inherently good nor inherently bad. As argued before, if a country's government uses the tools and resources the international economic integration offers in order to boost its national development strategy, the results can be significantly positive. Nevertheless, as the experience of the U.S, Britain, France, Germany, Spain, Ireland, Finland, Norway, Sweden, Austria, Belgium, South Korea, Singapore, Taiwan, Japan, Canada, Australia, New Zealand, China, Vietnam and India shows, globalization holds a considerable power to foster economic growth if liberalization is pursued in a gradual way, if markets are not left to their own and if the government is willing to play a vital role in shaping the structure and evolution of the economy.

If the Latin American and African economies were booming today, while that of countries such as China, India, South Korea, Finland or Singapore were stagnated and underdeveloped, then it would be much simpler to demonstrate the benefits and efficiency of the

neoliberal model. However, the countries that did better during the last decades were precisely those that did not fall for the free trade and free markets enthusiasm and decided to follow an unorthodox, gradualist and cautious global integration strategy, with selective import liberalization and capital controls. As in the case of the developed countries, it can be said that China played the globalization game by Bretton Woods rules instead than by those of the Washington Consensus.

The problem that many developing countries face now is that they are forced into a situation in which they either agree to the terms of aggressive globalization or they are relegated from the world stage (Stiglitz, 2018, p. 119). In other words, either they play by the rules designed by the developed countries or they are out of the globalization game. Of course, this does not mean that a central-planning economy is a viable alternative, but the other extreme of full liberalization, deregulation and privatization do not necessarily guarantee to foster a sustainable and equitable economic growth (Rodrik, 2019, pp. 30, 55). In addition, it is estimated that full liberalization of both manufactured and agricultural goods would give a rise in global economic welfare of about US\$125 billion, which is not a very auspicious amount if it is considered as a percentage of the total size of the global economy these numbers are small (Martinez, 2009, p. 33).

Trade and Industry. The modern theory of globalized free trade, which is based Keckscher-Ohlin-Samuelson model (KOS model), assumes full employment and that all the different economic activities embraced by the real economy are qualitatively equal and have the same potential to boost economic development, and thus, globalization and free trade will automatically result in economic harmony. However, at this point, it is quite clear that producing

bananas, tobacco or leather is not the same as producing semiconductors, smartphones or airplanes. Furthermore, free trade theory and its inseparable supporter, the concept of comparative advantage, are based on countries exchanging identical labor hours in order to determine efficiency and production costs. In that sense, one of the flaws of the theory is that it considers a labor hour from the times of ancient Egypt, the middle ages or 19th century England on a par with a labor hour from modern Silicon Valley, and predicts that the economic integration between these types of economies will produce harmony and equalization of wages in the long term (Reinert, 2008, pp. 26, 54). In practice, it is pretty obvious that this is not the case, and that the productivity and efficiency of Silicon Valley industries would wipeout that of the other economies.

Additionally, trade liberalization not only can harm an immature cluster of local industries, but does not guarantee an exports boom either, since it does not mean that exporters will automatically have the necessary supply capabilities to expand into foreign markets (Stiglitz & Charlton, 2005, p. 26). All this does not imply that the KOS model is absolutely wrong on its premises as it does not seem detrimental (or at least not severely detrimental) for countries that have already reached industrial maturity with an industrial sector that specializes on goods and services with increasing returns. However, it can be extremely harmful to those countries that have still not reached that level of industrial sophistication through a conscious industrialization policy (Reinert, 2008, p. 47).

Another issue with trade liberalization is that the most immediate impact of reducing tariffs is a big loss of government revenue. It is important to remember the considerable amount of revenues that governments such as those of the U.S or Britain received during their early development stages due to the high tariffs they put in place. Today, the loss of tariffs-related

revenues is not a big issue for developed countries, as their income sources come from many other sources, but it is a significant loss for developing ones since many of them have large informal sectors and weak tax-collecting systems. In the case of the poorest ones, many obtain more than half of their government income from tariff revenues. In that sense, unless the same amount of taxes is earned by other means, the public budget will shrink and expenditures will be cut in areas such as health, education, social programs, infrastructure and environmental protection (George, 2010, p. 35).

There is also criticism against the attitude of developed countries in what refers to the agricultural sector. If the conventional economic argument in favor of free trade were true, the U.S and Europe would benefit from removing all their agricultural subsidies and import barriers, irrespective of other countries' actions (George, 2010, p. 33). Nonetheless, developed countries mainly pushed for trade liberalization for the products that they export (industrial goods) but at the same time tend to disproportionately protect themselves in the sectors where competition from developing countries is more efficient and might threaten their economies, and from which most products that developing countries export come from, especially garments, agriculture and textiles sectors (Stiglitz, 2018, p. 156).

The elimination of subsidies was a key component of the neoliberal era and FTAs (despite the fact that heavy subsidized industrial sectors in developed countries were a key feature during their development stages), and while most of these were banned, agricultural

subsidies remained, which are extensively used by developed nations as they give an estimate of US\$ 100 billion worth of agricultural subsidies every year⁷³ (H.-J. Chang, 2009, p. 77).

Moreover, OECD tariffs are particularly high for goods of importance to poor countries, such as low-skill manufacturing like textiles and agricultural goods. This setting means that when developing countries export their products to a developed one, they face higher tariffs on average than if other developed country exports to that same market. For instance, in 2001, clothes and shoes (which are mostly exported by developing countries) accounted for only 6.5% of U.S imports but due to the tariffs imposed, they represented nearly 50% of the total US\$ 20 billion in tariffs revenues collected in that year. This meant that more tariff revenues were collected by the U.S on the import of shoes and clothes, than on the import of automobiles, even though the total value of shoes and clothes imports was around 10% of the total value of all imported automobiles (Stiglitz & Charlton, 2005, p. 125).

In addition to the tariff factor, non-trade barriers have taken a more preponderant role in limiting the competitive imports from developing countries. This is clearly seen by the fact that between 1995 and 2002, 2063 dumping cases were initiated both by the U.S and the European Union, which were the largest initiations of these demands at the WTO (Stiglitz & Charlton, 2005, p. 127). Besides this, the tariffs reductions as a result of the WTO agreement were not even either as developing countries ended up reducing their tariffs a lot more in absolute terms.

⁷³ Example: Cameroon was one of the leading producers of onions in the world, a crop that provides economic support for thousands of families in the country. Since the implementation of the Economic Promotion Agreement (EPA) with the European Union in 2014, European onions (especially from the Netherlands) razed the local onion market in Cameroon. European onions cost a third of the price of local ones, due to overproduction in Europe and the subsidies that agriculture receives in this region. As a result, national onions are disappearing from Cameroon, and thousands of families have lost their daily livelihoods (Achnich, 2018).

For instance, India had an average tariff of 71% and it was cut to 32%, while the U.S tariffs fell from 7% to 3%. In proportional terms, the reduction of both countries was similar at 55%, but in absolute terms the impact is quite different (H.-J. Chang, 2009, p. 75).

Consequently both Chang (2009, p. 75) and Stiglitz (2018, p. 34) agree with the fact that developing countries have been deprived from using the trade and industrial tools used by developed countries to promote their own industrial and economic development, and that the tariff structure operating since the neoliberal era has encouraged developing countries to produce raw materials and commodities, instead of encouraging them to produce industrial and high value-added goods.

Foreign Direct Investment (FDI). It cannot be denied that FDI can bring many benefits for a developing country, it is a source of extra capital, it contributes to a healthy external balance, it can increase productivity, create job positions, and transfer technology as well as managerial know-how. However, this does not mean that a total and indiscriminate openness towards FDI is always the best strategy for economic development in the long term. The potential spill-overs from FDI such as the hiring of local workers and the demand for local inputs, are not necessarily guaranteed, and an indiscriminate expansion of FDI can destroy national companies and industries in different sectors, sectors that could have eventually grown into competitive and efficient ones without the premature exposure to international competition (H.-J. Chang, 2009, pp. 88, 91).

There are also some additional aspects and facts to consider when it comes to the liberalization of FDI. Around 80% of FDI throughout the world are labelled as “Brownfield” investments, that is, buying and acquiring an already established company with all of its assets.

As a result, these types of investments use the already installed capacity of a previous company, so it does not always need to expand or create it. This also means that new jobs are not added either. When it comes to FDI operations in developing countries, it is most likely that a foreign firm sets operations destined to the production of low value-added products such as processed food or drinks, rather than a state-of-the-art factory to produce microchips, airplanes or advanced pharmaceuticals. Furthermore, even though it is now believed that transnational corporations are internationally based, companies still are national firms with international operations.

In fact, evidence shows that the bulk of its main activities, such as high-level research or in other words, those with the highest rate of increasing returns, are carried out in their home countries or in other developed countries (H.-J. Chang, 2002, pp. 99, 103, 109). Regarding FDI, Joseph Stiglitz (2018, p. 34) adds that most investment agreements or FDI chapters inside FTAs, now give foreign firms the right to sue the government if the government passes a regulation that has an adverse effect on the profits of the firm, no matter how justified the regulation is in terms of environmental or public health, which is why he considers that foreign firms are treated more favorably than domestic ones.

The case of Latin America, a region that has been pretty open and a major recipient of FDI, depicts the downsides of FDI. The impact of FDI has been weaker and less positive than expected, and the situation got less promising due to the lack of a solid and comprehensive FDI strategy, where selected transnational corporations whose corporate strategies are more attuned to the developmental circumstances and industrial aspirations of the nations in question are attracted (Harvey, 2011, p. 35).

Intellectual Property Rights (IPRs). The previous chapters of the present study have shown how the foundation of economic development is not the accumulation of capital but the emulation and acquisition of more productive knowledge. The logic behind the instauration of IPRs is that they provide greater motivation for innovation, technical change and long-term growth of the global economy, even by granting temporary monopoly power to certain firms, which always tend to reduce competitive efficiency. However, it is argued that, eventually, all countries will benefit from this dynamic. In practice, there is little evidence that stronger IPRs would generate a greater flow of basic ideas as IPRs seek to circumscribe the use of knowledge, limiting it only to those who are willing and able to pay (Stiglitz & Charlton, 2005, p. 141).

As a matter of fact, 97% of the world's patents and the overwhelming majority of trademarks and copyrights are owned by developed countries, meaning that developed countries are almost always the sellers of products that are subject to IPR protection, while developing countries are almost always the buyers of these goods. This implies that those who mainly assume the costs of IPRs are the developing nations, since the latter often do not have the capabilities and resources to innovate as easy and extensively as the advanced nations. In that sense, the new IPR system has made economic development more difficult for developing countries because the strengthening of the international IPRs regime creates a context where the acquisition of knowledge is more expensive or restricted (H.-J. Chang, 2009, pp. 76, 141).

IPRs tend to promote the dynamic efficiency of developed countries rather than developing ones, which are the ones ultimately need more support. The ironic short-term static impact of IPRs is a transfer of income from poor countries to rich ones, rather than being the other way around (George, 2010, p. 92). For instance, in 2012, the U.S alone obtained more than US\$20 billion in royalties for IPRs, which is about the same amount that USAID gave in

economic assistance to poor countries (approx. \$18.2 billion in fiscal year 2012) (Stiglitz, 2018, p. 41).

It is also important to highlight that in some areas, weaker IPRs and patents tend to be more beneficial for the society, especially for that of poor nations. The pharmaceutical sector has always raised debate about IPRs, as the big pharma companies from the developed world tried to prohibit the proliferation of cheaper-generic medicines to treat AIDS derived from their patents that were distributed by the governments of countries like South Africa (which has one of the highest rates of HIV prevalence). Needless to say, that it would be almost impossible for the affected population in African countries to afford the full price of an original-monopolized medicine to treat AIDS.

The debate is not whether there should be IPRs but about the design of those rights, since the criticism against the IPR system do not aim to achieve the abolition of IPRs from the international arena but to find a fair balance between the need to encourage people to produce new knowledge and the need to ensure that the costs from resulting monopolies do not exceed the benefits that the new knowledge brings about (H.-J. Chang, 2009, p. 143). However, considering how most of today's developed nations helped their industrialization process by smuggling or copying foreign technology through the implementation of weak IPRs regulations, the modern enforcement for IPRs significantly restrict the ability of developing countries to develop in a similar way.

In summary, it can be said that during the last decades, free trade per se seems to have been considered as the end itself rather than a tool or mean towards economic development. Curiously, even the CIA seems to have foreseen many of the problems of excessive liberalization

better than the specialized economic institutions of the U.S. In its Global Trends Report of 2015, the CIA warned that:

“the process of globalization will be rocky, marked by chronic financial volatility and a widening economic divide. Regions, countries, and groups feeling left behind will face deepening economic stagnation, political instability, and cultural alienation. They will foster political, ethnic, ideological, and religious extremism, along with the violence that often accompanies it (...) Within countries, the gap in the standard of living also will increase (...) Increased trade links and the integration of global financial markets will quickly transmit turmoil in one economy regionally and internationally (...) Neither does free trade promote human rights”
(Fletcher, 2011a, p. 27).

In the global economic scenario promoted since the 1980s, it seems that government interventionism or Keynesianism really did not disappear, as most developed countries kept relying on them and implementing related policies when it was convenient for them. However, most developing countries have been deprived from using the same policies and economic tools to promote their own development paths. In that sense, it can be said that globalization promoted neoliberalism for developing countries and pragmatic interventionism for the developed ones. Hence, similarly to how during the second half of the 19th century, developing countries were under the British shadow of free trade, it can be said that since the early-1980s, developing countries have been under the American shadow of free trade. Same dynamic, different times.

CHAPTER 7: CONSTRAINTS FOR 21ST-CENTURY INDUSTRIALIZING NATIONS: THE QUEST FOR A NEW DEVELOPMENT RECIPE

Deindustrialization: Benefit or Detriment?

For almost 200 years, Britain was an industrial powerhouse at a global scale. However, since the 1950s, the prevalence of manufacturing began to decrease. In 1952, it represented around one-third of the national output, employed over 40% of the workforce and accounted for 25% of the world's manufacturing exports. Today, the golden days of British manufacturing are long gone as manufacturing represents just 11% of the GDP, employs 8% of the workforce and represents only 2% of the world's manufacturing exports. The service economy displaced much of the manufacturing sector and now most shops and supermarkets sell imported goods (Best, 2018, p. 134).

This trend is not exclusive to Britain. In the last 4 decades, the share of the manufacturing sector in the world's GDP declined progressively, alongside the related employment. Hence, this characteristic pattern of structural change, which reflects the relative contraction of the manufacturing sector in the economy, has been referred to in the economic literature as deindustrialization (Camacho & Maldonado, 2018, p. 138). The American sociologist and professor at Harvard University, Daniel Bell (1919-2011), was the first to coin the term of post-industrialism in 1973. In his book *The Coming of Post-Industrial Society: A Venture in Social Forecasting*, he described the main characteristics of a post-industrial society (Robinson, n.d.):

- 1- A transition from the production of goods to the production of services, with very few firms directly manufacturing any goods.

- 2- The replacement of blue-collar manual workers with technical and professional workers (such as computer engineers, doctors, and bankers) as the direct production of goods is moved elsewhere.
- 3- The replacement of practical knowledge with theoretical knowledge, what would be later described as “The Knowledge Economy”.
- 4- The development of newer scientific disciplines—such as those that involve new forms of information technology, cybernetics, or artificial intelligence.
- 5- A stronger emphasis on the university and polytechnic institutes, which produce graduates who create and guide the new technologies crucial to a postindustrial society.

In time, several economists would argue that deindustrialization is a natural consequence of economic progress due to a series of external and internal factors. In what refers to the internal factors, while at low-income levels the adoption of low capital-intensive technologies enables productivity and employment growth, at high-income levels the use of technologies that make greater use of capital goods allows productivity to boost. On the other hand, a relatively slow growth in productivity in the services sector, accompanied by a constant growth in the demand for services, causes that sector to begin absorbing the workforce released by the manufacturing industry, which generates the dynamic growth of the tertiary sector in the economy at the highest levels of income.

In general terms, practically all countries follow a similar trajectory in the course of economic development, and the process is consistent with the tendency of middle-class consumers in developed countries to spend more of their income on services (Doyle, 2002). At this stage, an economy has already reached the final stage of industrialization, becoming a net exporter of capital goods with high technological intensity and its services sector has developed

enough to offer more modern and specialized services, directly related to manufacturing production. This expansion is capable of absorbing a growing proportion of the supply of labor that moves from manufacturing (UNIDO, 2013, p. 3).

In what refers to the external factors, it is assumed that deindustrialization is the result of the liberalization of world trade in manufactured goods and the growth of manufacturing activity in developing countries. This process of relocating manufacturing activities from developed countries to developing countries, driven by the use of cost advantages and the growth of these emerging markets, produces important changes in world distribution of manufacturing activities (Camacho & Maldonado, 2018, p. 145).

Although the statistical evidence suggesting an overall process of deindustrialization is undeniable, there are several economists that have contested the theory of deindustrialization in the sense that they do not agree with the fact that completely manufacturing loses its importance and that it must be disregarded in favor of services. According to Stiglitz (2018, pp. 63), the core ideas of post-industrialism do not stand up well to empirical evidence since a declining share of manufacturing in GDP is not automatically correlated with economic progress and highlights that manufacturing is not an obsolescent sector of the economy, especially in when it comes to the manufacturing of sophisticated high-tech products, which remains concentrated in advanced industrial nations.

Stiglitz (2018, pp. 64) further indicates that China's overwhelming manufacturing sector and its production of cellphones and other high-tech goods often just means that they were assembled there, while the internal components, which make up a large percentage of the finished product's cost, are frequently still made in advanced nations like Japan, the U.S and Germany. Evidence also shows that the economies with high ratios of R&D to GDP have larger

manufacturing sectors like in the case of Germany and Japan. For instance, Germany's manufactures along with industry-related services are estimated to represent around 30% of the GDP as the country has a large capital goods subsector with nearly 30% of SMEs involved in areas such as machine equipment, electrical engineering and industrial outputs (Best, 2018, p. 144). Thus, it is not surprise that until very recently, Germany was the world's first exporter before China took the lead in 2009, holding that title for a long period (1992 to 2009) after having achieved high levels of income and development.

On its part, Japan presents some resemblances to Germany. In the case of both nations, there is also a factor that had allowed them to keep a significant part of their manufacturing industries intact, their use of non-tariff barriers (Stiglitz, 2018, p. 71). There are also some statistical distortions that might wrongfully lead to the conclusion that manufacturing's participation in an economy is lower than what it really is. For instance, much of the decline in the percentage of the industry in total production is not due to a fall in the absolute quantity of manufactured products, but mostly to their lower prices in relation to services, which is caused by the faster productivity growth described earlier (H.-J. Chang, 2012, p. 114).

Starting a deindustrialization process is considered as "natural" when the appropriate conditions are met in a country, like high-income levels, high productivity and a growing sector of specialized services. However, it is a different situation and often negative process when a developing country begins industrializing without reaching the aforementioned conditions. This phenomenon is known as "premature deindustrialization", which is understood as the type of negative deindustrialization experienced by developing economies that reflects a sustained loss of share of production and manufacturing employment at low per capita income levels and too

low industrialization levels. This leads to a developing country to change the composition of its economy towards services, without having achieved first and adequate industrial development⁷⁴.

There is a growing trend within the development field that argues that developing countries can develop by “skipping” the industrialization process and going mainly from a primary to a tertiary economy, especially as a result of the impact of the rapid trade and financial liberalization process. However, it is also estimated that under such conditions, it may be more difficult than ever for developing countries, especially for the poorest, to promote industrial development and structural change (Rodrik, 2015, p. 7). This process is increasingly being considered as detrimental for developing countries as evidence shows that it contributes not only to reduce the chances of building a solid industrial base, but also slows down economic growth, reduces employment generation and restricts the possibilities of convergence with the high-income levels of advanced economies (Camacho & Maldonado, 2018, p. 151).

According to economists Rodrik (2019, p. 246) and Chang (2012, p. 126), premature industrialization rules out the traditional path of specialization from a primary-based economy towards a secondary-based economy characterized by the consolidation of export-oriented manufactures. This eventually forces developing nations to rely more on a less-productive service sector and the longer-term fundamentals of education and institutions. Hence, the idea

⁷⁴ The path of industrialization seems to be inverted in Latin America. During the last two decades, a striking evidence of the region’s pattern of development is an increasing share of services in total value-added at the expense of industry. This is more evident in the 1990s in the cases of Brazil and Argentina. Despite short-run fluctuations, the long-run picture is one of a clear rise in services’ share in total value-added and, moreover, a rise in services’ share in total employment (Castillo & Martins, 2016).

that industrialization can be skipped in developing countries in order to directly enter into a post-industrial economy is not really feasible in the long term⁷⁵.

The Service Economy and its disadvantages for development

As the same or higher number of cars, home appliances, electronics, among others, could be produced more efficiently and with fewer workers, manufacturing began to decline steadily after WWII and workers started to move to the service industries (e.g. finances, health, education, tourism, restaurants, entertainment, etc.), giving birth to the concept of the services or “knowledge” economy. Even though it took centuries for the world’s main economies to shift from an agricultural base towards a manufacturing one, the rise of the services sector of the last decades has occurred as a much faster rate, with the contributions of both industry and agriculture declining the most during the last couple of decades.

In 2015, services accounted for 74% of GDP in high-income countries, up from 69% in 1997, while the increase was even more prominent in low- and middle-income countries, where it jumped from 48% to 57% in the same period. In this context, it is estimated that the growing share of services will keep changing the composition of the world’s economic production, employment and trading patterns in the next decades (Deloitte, 2018).

Despite that the service economy provides certain benefits and is seen as a natural process after industrialization, there are some concerns about its ability to produce and sustain

⁷⁵ In El Salvador, premature deindustrialization has led to a decline in quality employment and an upswing in self-employment, at the same time that the female labor force participation rate has risen. This all occurred in parallel with the economic measures introduced in the 1990s and reflects the role that women have assumed in order to safeguard the well-being of their families. Deindustrialization has also been associated with increasing violence, since it paves the way for an increase in poor-quality jobs (Caceres, 2018).

growth over time. Dani Rodrik (2019, p. 90) states that when manufacturing is the main engine of an economy, selective reforms such as export incentives, special economic zones, or incentives to foreign investors can be highly effective to boost growth, but these selective policies would not work when the main engine must rely on non-tradable services.

A service economy is only feasible when its productivity is very high as it enables the generation of plentiful demand for these services alongside high incomes for independent proprietors. The problem with this scenario is that in general terms, services have not experienced nearly as much productivity growth as manufacturing over the course of history. The economist (Rodrik) gives an example about this by indicating that it takes as many waiters and chefs to run a restaurant today as it did a century ago. This is one of the reasons why many economists indicate that services are not good engines of growth, because their chances of increasing productivity are often limited, while their low marketability means that a service economy has a lower export capacity, and less export revenue translates into less capacity to buy advanced technologies from abroad (H.-J. Chang, 2012, p. 114).

Regarding developed countries, it is true that they have begun a process of deindustrialization in the last decades, but mainly in the social sense, not in the economic sense because even the richest nations can still be considered as “industrial” in terms of their production and consumption patterns. In this regard, economist Chang (2012, pp. 118, 119, 121) argues that the deindustrialization phenomenon in rich countries is mainly an optical illusion as it reflects changes in the statistical classification of consumption rather than reflecting changes in real activities. This is due to price distortions and terms of employment. For instance, people spend a larger part of their income on services because they have become more expensive in relative terms not in absolute terms.

This can be further explained with the fact that with the money needed to buy a laptop 15 years ago, today you can probably buy 2 or 3, whereas in the case of services the trend is the other way around. A haircut, a doctor appointment, a hotel room or a summer course are now more expensive than they were 15 years ago but the frequency with which people acquire these services has not really changed in general. This is why it is not necessarily true that as society progresses economically, the growing acquisition of services tend to lead towards deindustrialization.

As mentioned before, when the productivity of the industrial sector increases faster than that of the services, the prices of the former sector will also fall faster. Even in the case of countries with strong and extensive services sector such as Switzerland and Singapore put in evidence that this sector is far from becoming irrelevant. According to the United Nations Industrial Development Organization (UNIDO), in 2002, Switzerland had the highest per capita manufacturing value-added in the world (24% more than that of Japan, the second highest), while Singapore ranked third. This shows that these supposed service-based economies are in fact two of the strongest manufacturing countries in the world (H.-J. Chang & Bhagwati, 2011).

Another issue related to the rise of services within an economy is that the country will have lower export earnings, meaning that the country will not be able to pay for the same or increasing amount of imports. Even though some services such as banking, telecoms, transport, consulting or engineering are highly tradable, most services often require their providers and consumers to be in the same location. This explains why in the United Kingdom and the U.S, which have some of the strongest services-exporting sectors, the trade surplus that services generate is only around 4% and 1% of the GDP, respectively. While in the case of the UK, this 4% is just able to cover its trade deficit, in the case of the U.S, that 1% is far from covering the

manufacturing trade deficits of around 4%-5% (H.-J. Chang & Bhagwati, 2011). This means that a large service sector would not only affect the balance of payments as a country cannot trade most services for goods but would most likely force a country to rely on debt to keep the same level of imports and devalue its currency.

According to the WTO, 80% of world trade among regions is merchandise trade, which means that only 20% of world trade is in services. In addition, while many service sectors such as finance, telecoms, transport or engineering have had a significant productivity growth in the last decades and are highly tradable, services are mostly tied to manufactured goods either directly or indirectly, as the main customers of the services sector are manufacturing firms (Rynn, 2011).

There are other problems that have been associated with the growth of the service sector within an economy. For instance, an increasing number of studies suggest that there is a sharp deterioration of the standards of living among workers in the service economy as data from over 129 industries suggests that the benefits for workers (independent from income levels) are lower in services than in manufacturing (Nelson, 1994). Further evidence shows that as unionized factory workers shift to the service sector, which tends to be lower-paying and non-unionized, income disparities increase (Doyle, 2002).

Dani Rodrik (2019, p. 85) indicates that the transition is more damaging for less skilled workers, as the service sector jobs mean giving up the negotiated benefits of industrial capitalism with the decline of unions, job protections, and norms of pay equity, greatly weakening workers' bargaining power and job security.

Needless to say, that all these negative effects will be even more detrimental in the case of poor or developing countries in the long term. If one of these countries undergoes through a

process of premature deindustrialization without first having established a mature and modern manufacturing sector, it is most likely that a diverse, advanced and dynamic service sector will not develop. This will lead to the creation of a service sector characterized by informal, non-tradable, low-skilled activities and of low productivity, which do not have the dynamism and the capacity to boost growth before industrialization.

The expansion of this type of service activities during premature deindustrialization jeopardizes the possibility that the services sector complements the role of the manufacturing sector and, therefore, does not function as an alternative engine of economic growth (UNIDO, 2015, pp. 7, 8). There are some countries such as India, which have broken the traditional path by trying to transition directly into services without developing a significant manufacturing sector at the level of what the advanced nations did. In that sense, India demonstrates the limitations of relying on services rather than industry in the early stages of development. Even though the country has developed remarkable strengths in what related to IT services, such as software and call centers, the bulk of the Indian labor force lacks the necessary skills to be absorbed into such sectors effectively.

While in the case of East Asian nations, unskilled workers were put to work in urban factories almost overnight, making several times what they earned in the countryside, in India, unskilled workers remain on the land or move to construction and other low-productivity, low-wages services (Rodrik, 2019, p. 81). While a simplistic "manufacturing good, services bad" viewpoint is not viable, the undervaluation of the manufacturing sector is not viable either as it has been at the foundation of human material, and social, progress at least since the Industrial Revolution and it is likely to remain so in the foreseeable future (H.-J. Chang & Bhagwati, 2011).

Deindustrialization and the Service Economy in the U.S

After overtaking Britain as the world's top manufacturer in the late-19th century, the U.S eventually became the greatest industrial power in history after WWII. It is often said that WWII was a conflict about industrial power and capabilities. After the attack on Pearl Harbor, President Roosevelt told Congress and Americans:

It is not enough to turn out just a few more planes, a few more tanks, a few more guns, a few more ships than can be turned out by our enemies (...) We must out-produce them overwhelmingly, so that there can be no question of our ability to provide a crushing superiority of equipment in any theatre of the world war. (PBS, 2007).

This vision would be accomplished since the U.S manufacturing superiority showed to be fundamental as it crushed the production capabilities of both Germany and Japan. The U.S would produce an astonishing amount of military materials such as over 88,000 tanks and 300,000 aircrafts. Moreover, during the war, industrial productivity in the U.S increased by 96%, 17 million new civilian jobs were created and corporate profits after taxes doubled (Goodwin, 2001).

After the war, the U.S accounted for 50% of the world production and it was the great American manufacturing base that showed the world how to mass produce everything from TVs, refrigerators personal goods, to cars, airplanes and ships. However, over the last 4 decades, Americans have witnessed the deindustrialization of many regions and cities, with dozens of thousands of factories closing or leaving the country leading to a loss of millions of manufacturing jobs (Snyder, 2011).

According to Deloitte (2018), the contribution of services to GDP was higher in the U.S than in any other high-income nation. In 2017, value added in the services-producing industries accounted for 78.9% of total value added, amounting to US\$13.1 trillion, and 86.35 of total private employment, representing 124 million employees in wide-ranging activities, including everything from education and health care services to professional business services. At the same time, the U.S. manufacturing workforce has declined dramatically in the past 3 decades from 23% of total US civilian employment in 1970 to just 8% in May 2019 (Denning, 2019).

The U.S lost approximately 42,400 factories between 2001 and 2009, representing a loss of about 5.5 million manufacturing jobs or 32% reduction (U.S Bureau of Labor Statistics, 2020). The reduction has been more dramatic in the industrial heartland (the Northeast and the Midwest) where the loss of manufacturing jobs reached more than 40% between 1967 and 2001 (Doyle, 2002). Moreover, while in 1959, manufacturing represented 28% of the country's total economic output, by 2019, this figure decreased to 11.39% (Snyder, 2011). Consequently, the U.S Bureau of Economic Analysis reported a trade deficit of US\$616 billion in 2019 (Amadeo, 2020b).

Evidence has shown that the U.S lost proportionately more manufacturing jobs than other countries with comparable income levels. For instance, while the U.S lost 33% of its manufacturing jobs between 2000 and 2009, Germany only lost 11%. Is not that Germany has not generally played by the rules of the global trade system, but unlike the U.S., many German firms are privately owned and rarely emulated U.S companies in the pursuit of maximizing shareholder value as reflected in the current stock price, which can lead towards a sharp focus on short-term profits that eventually hinders the creation of long-term wealth. Moreover, Germany

focused efforts to maintain and increase innovation levels throughout the economy, steadily bolstering the competitiveness of their manufacturing sector.

In this regard, Germany is not alone since many more of America's competitors like Japan, Korea, Netherlands, Taiwan, and even China, worked constantly during the last couple of decades to foster science, technology, and innovation ecosystems in all sectors of the economy, not only services. The loss of manufacturing jobs in the U.S is also strongly related to the active pursuit of American companies for outsourcing, shifting production factories from American to Asia (Denning, 2016).

The decline of manufacturing throughout the country severely damaged the social and economic structure of many cities and regions in the country, showing the limits of the service economy to maintain or boost socioeconomic prosperity at a nationwide level. Perhaps the most representative case of both the dangers of deindustrialization and lack of innovation is that of Detroit. This city was one of the wealthiest urban centers not only of America but in the entire world. The birthplace of the American car industry, often called the "arsenal of democracy", was studded with architectural gems, and by the 1950s it boasted the highest median income and highest rate of home ownership of any major American city. The city had over 2 million people (the 4th in America) (Harris, 2009).

The car industry of Detroit was the largest in the world with huge corporation such as General Motors, Ford and Chrysler. For instance, General Motors was so big that its total annual revenue in the mid-1950s was larger than the gross domestic product of Belgium, making it the 18th largest "country" in the world—not just company. This enabled the auto-workers union to win great benefits. However, when the car industry began to face global competition, it was ultimately unable to compete, and it started crumbling in the 1970s, right up to the bankruptcy of

GM and Chrysler in 2009 (Bluestone, 2013). As a result, the city experienced a steadily loss of population (declined to 700,000 in 2010), loss of jobs (29% unemployment in 2009) and deterioration of city services and standards of living (Harris, 2009). Consequently, the poverty rate of the city reached 39% in 2015, one of the highest in the country (City of Detroit - Major's Office, 2019). Detroit is now an example of urban decline, but is not the only city in America where a collapsed manufacturing sector has created widespread unemployment and the creation of an underclass (Harris, 2009).

There is more evidence that shows that deindustrialization and the rise of the service economy in the U.S has been related to the decline of living standards and income stagnation during the last 2 decades. Although unemployment in the country is now at a 50-year low, data shows that many workers and middle-class people have trouble finding jobs with enough pay levels and adequate predictable hours.

According to the U.S Private Sector Job Quality Index (JQI), this is because the lost manufacturing jobs were mostly replaced by lower-wage/lower-hours service jobs, which is why the quality of jobs available have been deteriorating for the last decades. Even though it was predicted that professional and technical services would offer high wages, growing job spots, and productivity increase, which is true since the JQI showed that employment in this sector went up by 41% with an additional average weekly wage for non-managerial workers of approx. US\$1,575 when compared to other industries, data shows that this is not enough to absorb and compensate all the losses from manufacturing. The sector is not large enough for a nation of more than 320 million people.

In that sense, while countries such as South Korea and China learned that designing the products and owning the brand names was far more lucrative, they are now the world's leading

manufacturer of cellphones, televisions, and other consumer products. Hence, while other countries continue to target high-value manufacturing industries, the U.S has been forced to rely on low-value, low-growth, low-productivity and unionized low-wage and retail jobs (Denning, 2019). Additionally, as mentioned before, deindustrialization has shown to cause a series of social consequences that persist over decades, as in the case of Detroit.

Social studies about this evidence that deindustrialization in many American regions fostered not only the loss of jobs, but also of homes, health care, tax base, public services, local landscapes, cultural resources, poverty, and other social issues such as increasing incidences of suicides, family violence, depression, drug and alcohol abuse. People in these contexts have also shown an increasing loss of faith in traditional institutions such as government agencies, businesses and corporations, unions, churches and traditional political organizations, as the feeling of being left behind or disenfranchised also increases within the impacted communities (Russo & Lee Linkon, 2015).

21st Century: Additional Constraints for the Traditional Industrialization Path

As explained throughout the last couple of chapters, many of the conditions that developed countries experienced during their early-industrialization stages are now unavailable for developing countries. The rise and spread of multilateral agreements, free trade agreements, IPRs and FDI regimes, and other economic, trade and even political schemes of the modern globalized system have severely restricted the ability of developing countries to adopt the same policy toolbox and strategies that most developed countries used during their development stages in order to protect their industries, promote reverse engineering and achieve industrialization. Hence, the policy autonomy of developing countries is restricted, as Japan's was during the last

half of 19th century under asymmetrical and restrictive treaties that hinder its capacity to industrialize. This is why the traditional policy tools may not be as effective now as they might have been in the past (Narula & Lall, 2006, p. 15).

Although it has been theorized that developing countries can opt to skip industrialization and go directly towards a service economy, basing the premises on Schumpeter's concept of "creative destruction," which states that deindustrialization would allow for the transition of resources from older industries to more productive and efficient uses. Nonetheless, as explained above, deindustrialization is not necessarily natural or creative, nor does it reliably generate good jobs to replace those that are lost. Instead, it is the result of a complicated set of factors including globalization, offshoring, deregulation, downsizing and technological change that are inherently interconnected (Russo & Lee Linkon, 2015). Moreover, the current global economic, social, technological and even environmental context present now a series of additional constraints and challenges for developing countries to achieve industrialization and, thus, development.

Industrialization 4.0 . The first industrial revolution was based on the spread of mechanization and steam power, while the second and third industrial revolutions were based on mass production (assembly line) and ICTs, respectively. The fourth industrial revolution, also called Industrialization 4.0, is based on major technological advancements, where automation of manufacturing is upgraded with smart autonomous systems capable of self-cognition, self-optimization, and self-customization, including Cyber-Physical Systems, Internet of Things, big data and analytics, augmented reality, additive manufacturing, simulation, horizontal and vertical system integration, autonomous robots as well as cloud computing. This new industrial

revolution aims to integrate the intelligent machines, human actors, physical objects, manufacturing lines and processes across organizational stages to build new types of technical data, systematic and high agility value chains. In that sense, the access to new skills in technology, science and innovation will be crucial to enable developing countries to play an inclusive role in the global market (UNIDO, 2018).

There is no doubt that manufacturing had been the traditional rapid escalator to higher income levels. However, whereas the first 3 industrial revolutions led to structural transformations that resulted in productivity growth, increased employment and higher wages, and created the conditions for more equitable income distribution and sustained economic development (as peasants could be transformed into factory workers virtually overnight), the fourth industrial revolution and the rapid digitization and robotization of many traditionally labor-intensive industries will make it even harder for many developing countries to make their mark in manufacturing (Rodrik, 2019, p. 244).

According to UNIDO (2018), this new process will affect all sectors, especially in developing countries, where most low-paid jobs are concentrated and because there exists a significant asymmetry in terms of access to new technologies and knowledge between developing and developed countries. In this context, high-wage jobs will require increased digital skills, but the weak education systems in many developing countries might not be able to provide the necessary basic skills to thrive in the fourth industrial revolution. Moreover, a recent assessment on the subject by UNCTAD (2019), adds that the frontier technologies that will characterize industrialization 4.0 such as AI and robotics, may change the rules for countries embarking on the path of industrialization since higher automation might not only displace workers from low-productivity sectors but also reduce the opportunities for workers to find

decent jobs as the process will most likely reduce wages. This could lead to a situation where the benefits of any productivity increase may only concentrate on a few firms and a small share of the workforce, further eroding the levels of income distribution to levels incompatible with social stability.

Another study by the World Bank (Hallward-Driemeier & Nayar, 2017), indicates that industrialization 4.0 alongside the shifting globalization patterns (slower trade and global value chains concentrated among a small number of countries, mainly developed ones) put the feasibility of the traditional manufacturing-led development strategies into question, as they will shift the criteria for the establishment of production sites and threat to create significant disruptions in employment, especially for low-skilled labor. The study concludes that even if the traditional manufacturing path will still remain feasible, is very likely that it would no longer provide the same benefits in terms of productivity and job creation for the unskilled labor in the developing world. In this context, there are potential risks of growing inequality between and within countries.

The Influence of China in a Globalized World. The traditional manufacturing-led development strategy faces another significant obstacle in the 21st century: the emergence of China, now referred as “the world’s factory” due to its immense workforce, low wages, strong business ecosystem, lack of regulatory compliance, low taxes, and disruptive currency practices. The manufacturing revolution of China has transformed the country and the world economy with it. In 1990, China produced less than 3% of global manufacturing output by value, but now its share is nearly 25%. For instance, China produces about 80% of the world’s air-conditioners, 70% of its mobile phones and 60% of its shoes (*The Economist*, 2015).

Evidence shows that after China's accession to the WTO in 2001, it disrupted the manufacturing conditions at a worldwide scale faster than expected and has contributed to the further deindustrialization of regions such as Latin America and Africa. This is mostly because the weight of China's dynamic manufacturing industry and the increasing share of its manufacturing exports in the world market increasingly exerts a competitive pressure on industrial production in national markets and export sectors of industrial products, which retards the development of the industrial base, causes large trade imbalances and generates considerable direct and indirect impacts on the group of developing economies, thus accelerating the deindustrialization process (Camacho & Maldonado, 2018, p. 151).

For example, due to the avalanche of cheap bicycles and motorcycles "Made in China", the European Union had to impose a 48.5% tariff on these goods coming from China in order to protect its domestic manufacturers, especially in Germany. On the other hand, the U.S did not impose any trade protection measures. As a result, the Chinese bicycles virtually wiped out all local manufacturers, who could not compete with the amount and price of Chinese products (Achnich, 2018). This scenario has been replicating all over the world with different products and in different sectors. This clearly shows that if not even the most advanced and productive countries of the western world cannot stand to compete against the Chinese manufacturing power, then how can the less advanced and productive countries of the developing world compete against China under free trade conditions?

Furthermore, the emergence of China as the world's factory and its almost insatiable demand for primary products and natural resources such as copper, iron, silver, zinc, soy, fishmeal, etc. has translated into favorable prices for commodities. Although at first glance, this is good news for developing countries as their exports increased as well as their value, at the

same time, this contributes to an excessive concentration in commodities, which strengthens local currencies and further discourages investment in non-traditional export sectors, resulting in faster deindustrialization (Herrerros & Duran Lima, 2011).

In short, there is little doubt that competition from China combined with the reduction in trade-protection levels means that few poor developing countries now have the opportunity to develop simple manufactures for home consumption and embark into an industrial process as other nations did in the past (Rodrik, 2019, p. 90).

Sustainability and the Environment. Industrialization has been critical for the economic growth and development around the world. However, the transition to an industrial world has also proven to be harmful to the environment, ecosystems and public health due to the depletion of natural resources, damage to ecological services, the astonishing increase of carbon emissions and the resultant pollution levels of air and water. These factors have contributed to the climate change and global warming processes, as well as push the planetary boundaries to the limit.

According to data released by the U.S. Department of Energy's Carbon Dioxide Information Analysis Center (CDIAC), human activity has released more than 400 billion metric tons of carbon dioxide into the atmosphere since 1751, which is around the beginning of the first industrial revolution. The most surprising fact is that about 50% of this total was released since 1988 onwards. These has been mostly related to the use of coal and oil, which are estimated to have produced about 75% of the total emissions (Hignett, 2018). In this regard, the most recent example of the environmental consequences that industrialization can produce are being

witnessed in China, where the amazing economic growth has come at the expense of its ecosystems and public health. China is now the world's largest source of carbon emissions, around 30% of the global share, which is why many cities have very low air-quality levels, far below international health standards.

Many Chinese regions also face severe water contamination and land deterioration scenarios. As a result, national data shows that air pollution contributes to an estimated 1.2 million premature deaths in China each year due to significant health complications, including respiratory, cardiovascular, and cerebrovascular diseases. Moreover, air and water pollution has also been linked to the proliferation of acute and chronic diseases. For instance, estimates suggest that around 11% of digestive-system cancers in China may be caused by drinking unsafe water.

The negative consequences are not only related to the environment and health since the Chinese Ministry of Environmental Protection estimates that the cost of pollution was around US\$ 227 billion (3.5% of GDP), according to 2010 figures. The effects of air pollution have not only stayed within Chinese borders, as pollution emitted by Chinese industries have been recorded throughout other East Asian countries and even in western U.S (Albert & Xu, 2016).

Despite the strong evidence about the environmental costs of the traditional industrialization process, fossil fuels in different countries are still the cheapest, most reliable energy resources available, which is why most developing countries are still relying heavily on them in order to build a functional economic system and end poverty. This is exemplified by the case of India, a country that is home to 400 million people still living in poverty (the entire U.S. population is roughly 320 million people). Although Indian authorities are aware of the environmental threats of industrial development and poverty reduction, the investment needed to

meet its renewable energy goals is equivalent to over four times the country's annual defense spending, and over ten times the country's annual spending on health and education

According to a World Bank report, poor and middle-income countries already account for just over 50% of total carbon emissions, a percentage that will only rise as developing countries grow. In fact, and not surprisingly, a correlation was found between the carbon emissions of a country and its poverty reduction levels. For instance, in East Asia and the Pacific, the number of people living in extreme poverty declined by 85% between 1981 and 2011. However, during the same time period, the amount of carbon dioxide per capita rose around 185%. In South Asia, extreme poverty was reduced by 30% and the amount of carbon dioxide levels increased by 204% during the same period. In contrast, the number of people living in poverty increased, while carbon dioxide per capita decreased by 17% (Davey, 2016).

Therefore, in order for developing countries to achieve the living standards and economic development levels of developed countries in a sustainable way, huge investments in renewable energies and in fostering a green economy will be necessary, aiming to break the link between economic and industrial growth and an increasing CO₂ per capita emission. Even though there is no question about the importance and necessity of this sustainable endeavor and transformation of the world economy into a more green-based one, this scenario will represent another obstacle for developing countries to converge with the developed ones. Whereas the latter group of countries were able to exploit fossil fuels and pollute indiscriminately for centuries without being held accountable for it, the international community is now pressuring both developing and developed countries to adopt more sustainable and clean energy policies.

This raised some debates about the fairness of setting the same environmental standards for both groups of countries as it is often questioned if developing countries should have the

same right to pollute in order to developed just like the developed ones did. Nonetheless, the increasing environmental threats and issues around the world will probably force most developing nations to adopt sustainable strategies despite the fact that these might represent additional costs and potentially delay the development process.

CONCLUSIONS

The root cause of poverty in many countries being is not mainly defined by any unchanging structural factor, such as the tropical climate, inopportune location, religious background or faulty culture. Since the times of King Henry VII, more than 500 years ago, it was understood that the best recipe for developing countries to achieve long-term economic development was to redesign the country's productive structure away from low-quality, low-productivity and low value-added activities subject to diminishing returns, and redirect their policies towards the development of industries with high diversity, large division of labor, specialization in technologies leading to increasing returns, large economies of scale, falling costs of production, high barriers of entry, stable prices, trans sectorial synergies, constant innovations with high market values, steep learning curves, high R&D content and, last but not least, imperfect but dynamic competition.

In short, history has shown that a successful development strategy implies increasing diversification away from traditional raw materials, commodities and agriculture to sectors with high-tech, intensive manufacturing and constant innovation, thus, creating a complex and new socioeconomic structure in the process. Once the right activities and industries are implemented, the positive spillover effects will spread throughout the economy, creating a growing middle class, generating and strengthening domestic markets that turn former poor non-consumers into

active consumers. This is when a domestic economy can effectively take full advantage of other critical elements necessary to boost development such as infrastructure, education and institutions.

This is why investing in industrial growth and market-creating innovations to create a violent structural change that leads to increased productivity serves as a critical catalyst and strong foundation for achieving sustained economic development in poor countries. It does not matter if a country has a comparative advantage in natural resources, a country should try to move away from those activities. This means that a country must acquire mastery over a broader range of activities in order to achieve development, instead of concentrating only on what it does better. Although there is clearly more to development than industrialization, there is no doubt that industrial societies are generally wealthier than agricultural societies.

Britain was perhaps the first to understand and implement and master this strategy, enabling it to achieve an unmatched economic and industrial superiority. After decades of protectionism and economic nationalism, and once the British industries were highly advanced and competitive in the international arena, the British government was the first to adopt and promote free trade and economic liberalization policies in order to gain access to foreign markets and as a way to hinder industrial development abroad.

Nonetheless, its rivals and western neighbors eventually understood the importance of industrialization, which is why they set a series of state-led innovation policies in order to emulate the success of the British, something that of course the British tried to stop unsuccessfully. The emulation strategy that all other now-developed nations would implement, from the U.S, France, Germany and Sweden to the Japan, the Asian Tigers and even China, would be based on the ideas and concepts of Alexander Hamilton and Friedrich List, who were

convinced that industrialization alongside nationalistic economic policies were the foundation for social and economic development.

The Americans, Germans, French, Japanese, and other now-developed nations understood that a successful emulation strategy based on industrialization would critically need to be accompanied by the protection of local industries from foreign competition until they could be mature and competitive enough. In that sense, successful countries opened themselves to the outside but did so slowly and in a sequenced way, dropping protective barriers carefully. Furthermore, now-developed countries shifted their trade policies according to their relative position in the international competitive struggle. When they were catching up, they protected infant industries, poached skilled workers and smuggled contraband machines from more developed countries, engaged in industrial espionage and willfully violated patents and trademarks. However, once they joined the league of most developed nations, they began to advocate free trade and prevent the outflow of skilled workers and technologies, they also became strong protectors of patents and trademarks.

This does not erase the fact that virtually all successful nations used infant industry promotion during their catching up periods. Even though this does not mean that these policies automatically guarantee economic success, there is remarkably persistent historical patterns from 18th-century Britain to 20th-Century China, in which successful economic development was achieved through infant industry protection measures (H.-J. Chang, 2002, p. 139).

It is undeniable that closing a country from international trade would definitely be detrimental for a nation, but the best performing economies and industrial leaders have been those that opened up their economies gradually and selectively, and that adhere the least to free trade during the crucial moments of their developmental phases. They understood that

asymmetric free trade would lead a poor nation to specialize in being poor, while the rich nation in being rich. This does not mean that trade protection is automatically good for growth either, but the theoretical evidence certainly rules out extreme positions. Therefore, developing countries should seek strategic and balanced integration with the rest of the world economy, since absolute free trade is an extremist and ultimately harmful position.

The U.S is perhaps one of the best examples, as neither free trade nor laissez-faire have been taken seriously in America's domestic economy for well over 100 years. It is no accident that regulating international trade was well within the intention of the Founding Fathers. For instance, the Article I, Section 8 of the U.S Constitution explicitly authorizes Congress to regulate commerce with foreign nations (Fletcher, 2011a, p. 20). Hence, history shows that most of now-developed countries learned and followed their economic and trade policies based on the theories from Alexander Hamilton and Fredrich List rather than from those of Adam Smith and David Ricardo.

In what refers to this last factor, the role of the developmental state in the restructuring of the economic and productive structure of the most successful economies by aligning the public interests of the nation with the private interests of the capitalist sector. Although it is true that in the case of countries such as the U.S, France, Germany, Britain and Japan, there was an enormous entrepreneurial innovation and an "invisible hand", this force was constantly being lifted by the government. It was precisely the complementation of the 2 main element of capitalism, the state and capital, that transformed Europe and then the whole western world into the economic and industrial powerhouse that ruled and shaped the fate of the world. The state's role in supporting the rise of capitalism was not limited to establishing the necessary legal and infrastructural framework as it signaled the direction, cleared the way, set up the path, and when

needed, provided the means for the entrepreneurs and helped to reinvigorate, redirect, and reshape the economy (Cohen & De Long, 2016, p. 129).

The state played a vital role in the promotion of the virtuous capitalist circle, it managed aggregate demand, through state consumption as well as through the transfer and redistribution of income, so that firms would have enough confidence to undertake extended and expensive R & D as well as the subsequent heavy capital investment involved in complex mass production; it generalized mass consumption norms for citizens to share the prosperity generated; it supported firms through financial and investment aid; it invested heavily in R & D itself, particularly in areas where the private sector was too risk-averse, thus playing a key entrepreneurial role in the development and commercialization of new growth-enhancing and profit-boosting technologies in different areas (H. Chang & Grabel, 2005, p. 263).

In the case of the U.S, the role of the state was critical to develop many industries as it dared to invest (against all odds) to create new technological opportunities; making the initial large necessary investments; enabling a decentralized network of actors to carry out the risky research ; and then allowing the development and commercialization process to occur in a dynamic way. In that sense, the U.S government did not just create knowledge through national labs and universities, but also to mobilize resources that allow knowledge and innovations to diffuse broadly across sectors of the economy, showing that state intervention aimed at boosting investor profitability is strongly associated with rapid industrialization (Mazzucato, 2015, pp. 7, 48).

This suggest that the right model for industrial policy is of strategic collaboration between the private sector and the government, it is a discovery process, one where firms and the government learn about underlying costs and opportunities and engage in strategic coordination

(Rodrik, 2009, p. 100). Consequently, it can be said that the widespread notion that exists about a fundamental opposition between states and markets, like a zero-sum game where the influence of one can only increase at the expense of the other. However, history shows that capitalism only triumphs when it becomes identified with the state, when it is the state. Because the roots of markets, freedom, justice and wealth depend on an active and vigilant state. Opportunities and wealth are created when the state gets markets right (Martinez, 2009, p. 286) (H. Chang & Grabel, 2005, p. 100).

Surprisingly, during the last decades, it is now the advanced nations, led by the U.S, who have been doing what the British tried to impose to them, preaching free trade, small government and laissez-faire economics to developing countries as the best way to achieve economic development and under the wrong assumption that these were the policies that the rich nations adopted when they were developing.

Thus, in the last 4 decades, a new paradigm for international development, which differs from that of Bretton Woods, began to dominate much of the economic thinking among both developed and developing countries. The new stage of economic globalization at the end of the 20th century paved the way for a series of neoliberal premises, which indicated that developing countries would strongly benefit from the adoption of economic liberalization, free market-based policies, openness for capital flows and government deregulation.

Unfortunately for developing countries, the policies of the neoliberal era and the Washington Consensus practically prohibited the traditional toolbox of emulation that demonstrates an impressive track record of success over 500 years. This leads to the question of how 500 years of wisdom about the links between wealth, civilization and economic activities could be discarded so unanimously today? (Reinert, 2008, p. 201). In that sense, it was not a

surprise that despite the massive backup and promotion from international organizations, think tanks, economists and scholars, the neoliberal promises behind the Washington Consensus did not produce the so-desired sustained economic development within the developing world.

Contributed to increase inequality, undermine developing countries' technological and industrial base, augment global economic and financial instability, as well as create a widespread social discontent. A great part of this criticism is based on the fact that most of today's rich nations did not achieve their development levels by following neoliberal and free-market policies, they did so through a combination of strong government intervention, regulations, protectionism and partially open-markets. Therefore, the potential value of a policy or an institution to a country should be determined more by what it will do to promote internal development than by what the international investors will think about it (H.-J. Chang, 2002, p. 139). Similarly, to how during the second half of the 19th century, developing countries were under the British shadow of free trade, it can be said that since the early-1980s, developing countries have been under the American shadow of free trade and that the new development slogan should be "Do as the American did, not as they say". Same dynamic but different times.

Besides the challenges and constraints that the neoliberal wave (FTAs, RTAs, IPRs, FDI, and other international agreements and configurations) has generated for developing countries, there are now additional obstacles for these group of countries in order for them to converge with the income and development levels of the advanced nations such as the spread of premature deindustrialization, the rise of the service economy, the characteristics and challenges of the fourth industrial revolution, the overwhelming concentration of manufacturing activities in China, as well as the environmental pressures.

This means that the manufacturing export-led growth model and the emulation or catching-up strategy through infant industry promotion that brought enormous benefits to developed nations in the past may be reaching the end of its usefulness and developing countries that had not taken advantage of it earlier will, in part have to look elsewhere for growth strategies (Stiglitz, 2018, p. 56).

It might be too late for developing countries to emulate and follow the examples of the U.S or the East Asian nations since a return to the ISI model is no longer feasible and no clear alternative to it has been identified yet (H. Chang & Grabel, 2005, p. 13). Even the World Bank now admits that “Business as Usual” strategies will not succeed in promoting manufacturing-led growth in developing countries and that the new challenge for them is to find new approaches to foster industries (Hallward-Driemeier & Nayyar, 2017). Otherwise, and as Reinert (2008, p. 297) explains, if poor countries participate in technological development only as consumers, their wage levels and purchasing power will not be lifted to that of advanced countries.

The fundamental message of the history of development clearly shows that a successful economic policy has been pragmatic and concrete rather than ideological and abstract (Cohen & De Long, 2016, p. 92). Development must be seen for what it has always been: the outcome of conscious and deliberate policy, a policy that has always been coordinated and maintained by the role of the State (Reinert, 2008, p. xx). Moreover, the different development experiences full of trials and errors show that there are no “one size fits all” policies for development, something that was clearly evidenced by the failure of the Washington Consensus policies.

Successful economic reforms have been those that took concrete economic principles preached by economists and policymakers such as Hamilton, List, Schumpeter and Keynes, and adjust them local circumstances and capabilities. Different contexts require different solutions

and policy innovations, which is why copying successful policies and institutions from other countries have many possibilities to end up in failure. It is essential to consider each country's competitiveness, capabilities, and connectedness, within the context of ever-shifting international trade patterns, marketplace demands, and financial strengths (Rodrik, 2006). Consequently, developing countries should be allowed to adopt the tools, policies and institutions that are more suitable to their respective stages of development, just as the developed countries did. In the long term, this will benefit both developing and developed countries, as it will strengthen the global economy by increasing the purchasing power as well as the investment and trade opportunities.

The criticism to the laissez-faire economics and excessive capitalism is not the same as being anti-capitalist. Free trade, free markets and unregulated markets are not the only nor the best way to apply capitalism. Virtually all of the most successful development cases have been based on capitalist environments fostered and consolidate by the State. The biggest mistake that economists, policymakers and the society as a whole make is to look at the theories of Adam Smith, Alexander Hamilton and John Maynard Keynes as if they were contrasting and irreconcilable ideals, when it was their combination and complementation what ultimately created the proper conditions for prosperity and wealth throughout the developed world.

BIBLIOGRAPHY

- Acemoglu, D., Aghion, P., & Zilibotti, F. (2002). *Distance to Frontier, Selection, and Economic Growth* (No. w9066). National Bureau of Economic Research.
<https://doi.org/10.3386/w9066>
- Achtnich, T. (2018, July). Juego sin límites—La mentira del libre comercio | DW Documental.
 In *DW Documentales*. DW. <https://www.youtube.com/watch?v=FEdeaBjOYFs>
- Adameo, K. (2020a, January 16). *Deregulation Pros, Cons, and Examples*. The Balance.
<https://www.thebalance.com/deregulation-definition-pros-cons-examples-3305921>
- Adameo, K. (2020b, January 16). *Government Subsidies (Farm, Oil, Export, Etc) What Are the Major Federal Government Subsidies?* The Balance.
<https://www.thebalance.com/government-subsidies-definition-farm-oil-export-etc-3305788>
- Albert, E., & Xu, B. (2016, January 18). *China's Environmental Crisis*. Council on Foreign Relations. <https://www.cfr.org/backgroundunder/chinas-environmental-crisis>
- Amadeo, K. (2020a, February 22). *The Rising Cost of Health Care by Year and Its Causes*. The Balance. <https://www.thebalance.com/causes-of-rising-healthcare-costs-4064878>
- Amadeo, K. (2020b, February 26). *US Trade Deficit and How It Hurts the Economy*. The Balance. <https://www.thebalance.com/u-s-trade-deficit-causes-effects-trade-partners-3306276>
- Amahazion, F. (2016). *Neoliberalism and African Development*. Madote.
<http://www.madote.com/2015/09/neoliberalism-and-african-development.html>

- American Library Association. (n.d.). *Alexander Hamilton: The Man Who Made Modern America*. Retrieved February 5, 2020, from <http://www.ala.org/aboutala/offices/ppo/programming/hamilton/alexanderhamilton>
- Andreas, P. (2014). *Smuggler nation: How illicit trade made America*.
- Appiah-Kubi, K. (2014, July 19). *Economic transformation against rapid deindustrialization in Ghana*. Ghana Web. <https://www.ghanaweb.com/GhanaHomePage/features/Economic-transformation-against-rapid-deindustrialization-in-Ghana-317605>
- Appleby, J., Brinkley, A., Broussard, A. S., McPherson, J. M., Ritchie, D. A., & National Geographic Society (U.S.). (2006). *The American vision: Modern times*. Glencoe/McGraw-Hill.
- Armitage, J., & Roberts, J. (2016). The Spirit of Luxury. *Cultural Politics*, 12(1), 1–22. <https://doi.org/10.1215/17432197-3436283>
- Askari, H. (2019, December 11). *The Financialization of the US Economy Should Terrify All Americans*. The Globe Post. <https://theglobepost.com/2019/12/11/financialization-us-economy/>
- Best, M. H. (2018). *How growth really happens: The making of economic miracles through production, governance, and skills*. Princeton University Press.
- Bhattacharya, A. (2018, September 12). *India's pulled at least 170 million people out of poverty since 1990*. Quartz India. <https://qz.com/india/1385642/after-china-india-pulled-most-people-out-of-poverty-since-1990/>
- Björkman, T. (2016). *The Market Myth*. Cadmus Journal. <https://www.cadmusjournal.org/files/pdfreprints/vol2issue6/cadmus-v2-i6-market-myth-tborkman-reprint.pdf>

Bluestone, B. (2013, October). *Detroit and Deindustrialization*. Dollars & Sense.

<http://www.dollarsandsense.org/archives/2013/0913bluestone.html>

Boyce, P. (2019, November 7). *Farm Subsidies Are Corporate Welfare—And They Cost Us Plenty*. Mises Institute. <https://mises.org/wire/farm-subsidies-are-corporate-welfare-%E2%80%94and-they-cost-us-plenty>

Caceres, L. (2018). *Deindustrialization, labour and violence in El Salvador*. ECLAC.

<https://www.cepal.org/en/publications/44324-deindustrialization-labour-and-violence-salvador>

Camacho, J. A., & Maldonado, A. (2018). *De la desindustrialización madura a la desindustrialización prematura: La dinámica e inflexión del debate teórico*. Universidad Nacional Autónoma de México (UNAM).

https://www.researchgate.net/publication/325683256_De_la_desindustrializacion_madur_a_a_la_desindustrializacion_prematura_La_dinamica_e_inflexion_del_debate_teorico

Carmody, P. (2008). Neoclassical Practice and the Collapse of Industry in Zimbabwe: The Cases of Textiles, Clothing, and Footwear*. *Economic Geography*, 74(4), 319–343.

<https://doi.org/10.1111/j.1944-8287.1998.tb00019.x>

Castillo, M., & Martins, A. (2016). *Premature deindustrialization in Latin America* (No. 205; Serie Desarrollo Productivo, p. 29). CEPAL.

<https://repositorio.cepal.org/handle/11362/40241>

Cendrowski, S. (2015, July 22). *China's Global 500 companies are bigger than ever—And mostly state-owned*. Fortune. <https://fortune.com/2015/07/22/china-global-500-government-owned/>

- Chang, H., & Grabel, I. (2005). *Reclaiming development: An alternative economic policy manual* (2. impr). Fernwood Publ. [u.a.].
- Chang, H.-J. (2002). *Kicking away the ladder: Development strategy in historical perspective*. Anthem.
- Chang, H.-J. (2009). *Bad samaritans: The myth of free trade and the secret history of capitalism* (paperback ed). Bloomsbury Press.
- Chang, H.-J. (2012). *23 things they don't tell you about capitalism*. Bloomsbury Press.
- Chang, H.-J., & Bhagwati, J. (2011, July). *The Economist.com Debate: Manufacturing* [Interview].
http://www.columbia.edu/~jb38/papers/pdf/The_Economist_com_Debate_Manufacturing.pdf
- Chen, J. (2019a). Dutch Disease. In *Investopedia*.
<https://www.investopedia.com/terms/d/dutchdisease.asp>
- Chen, J. (2019b). Resource Curse. In *Investopedia*.
<https://www.investopedia.com/terms/r/resource-curse.asp>
- Chen, R. (n.d.). Dirigisme. In *Encyclopedia Britannica*. Retrieved February 19, 2020, from
<https://www.britannica.com/topic/dirigisme>
- Cheney, P. (2018, March 2). *The rise of Japan: How the car industry was won*. The Globe and Mail. <https://www.theglobeandmail.com/globe-drive/adventure/red-line/the-rise-of-japan-how-the-car-industry-was-won/article27100187/>
- China's economic miracle: 40-year rise in numbers*. (2018, December 18). Straits Times.
<https://www.straitstimes.com/asia/east-asia/chinas-economic-miracle-40-year-rise-in-numbers>

- Christensen, C. M., Ojomo, E., & Dillon, K. (2019). *The prosperity paradox: How innovation can lift nations out of poverty* (First edition). Harper Business, an imprint of HarperCollinsPublishers.
- City of Detroit - Major's Office. (2019, August 26). *POVERTY LEVEL IN DETROIT DROPS FOR THIRD STRAIGHT YEAR; 45,000 DETROITERS MOVE OUT OF POVERTY SINCE 2015*. City of Detroit. <https://detroitmi.gov/news/poverty-level-detroit-drops-third-straight-year-45000-detroiters-move-out-poverty-2015>
- Cohen, S. S., & De Long, J. B. (2016). *Concrete economics: The Hamilton approach to economic growth and policy*. Harvard Business Review Press.
- Comuneros Revolt (1520–1521). (2020). In *Encyclopedia.com*.
<https://www.encyclopedia.com/history/encyclopedias-almanacs-transcripts-and-maps/comuneros-revolt-1520-1521>
- Congress Approves the Federal-Aid Highway Act*. (1956, June 26). United States Senate.
https://www.senate.gov/artandhistory/history/minute/Federal_Highway_Act.htm
- Dales, J. (2015). Protectionism. In *The Canadian Encyclopedia*.
<https://thecanadianencyclopedia.ca/en/article/protectionism>
- Danzer, G. A., & McDougal Littell. (2007). *The Americans: Reconstruction to the 21st century*. McDougal Littell.
- Davey, T. (2016, August 5). *Developing Countries Can't Afford Climate Change*. Future of Life Institute. <https://futureoflife.org/2016/08/05/developing-countries-cant-afford-climate-change/?cn-reloaded=1>
- De Vogli, R. (2013). *Progress or collapse: The crises of market greed*. Routledge.
<https://www.taylorfrancis.com/books/e/9781135102920>

Deloitte. (2018, July). *The services powerhouse: Increasingly vital to world economic growth.*

Deloitte. <https://www2.deloitte.com/us/en/insights/economy/issues-by-the-numbers/trade-in-services-economy-growth.html>

Denning, S. (2016, December 5). *Why Does The U.S. Lose More Manufacturing Jobs Than*

Germany? Forbes. <https://www.forbes.com/sites/stevedenning/2016/12/05/could-donald-trump-solve-the-real-jobs-problem/#5495fa5052d2>

Denning, S. (2019, December 5). *Understanding The U.S. Economy: Lots Of Rotten Jobs.*

Forbes. <https://www.forbes.com/sites/stevedenning/2019/12/05/understanding-the-us-economy-lots-of-rotten-jobs/#d3e3c072d970>

Desilver, D. (2018, August 7). *For most U.S. workers, real wages have barely budged in*

decades. Pew Research Center. <https://www.pewresearch.org/fact-tank/2018/08/07/for-most-us-workers-real-wages-have-barely-budged-for-decades/>

Development of manufacturing industries in Australia. (2012, November 22). Australian Bureau of Statistics.

<https://www.abs.gov.au/Ausstats/abs@.nsf/0/33bb7a8977192473ca2569de0027ced7>

Diao, X., Roe, T., & Somwaru, A. (2002). Developing Country Interests in Agricultural Reforms

under the World Trade Organization. *American Journal of Agricultural Economics*, 84(3), 782–790. <https://doi.org/10.1111/1467-8276.00337>

Dietrich, J. (2002). *The Morgenthau Plan: Soviet influence on American postwar policy.* Algora

Pub.

Dobbs, M. (2000, April 13). *In Haiti.* Washington Post.

<https://www.washingtonpost.com/archive/politics/2000/04/13/in-haiti/8338185d-7032-429d-a27b-a498178323d2/>

Doyle, R. (2002). Deindustrialization. *Scientific America*, 286(5), 30.

Duhigg, C., & Kocieniewski, D. (2012, April 8). *How Apple Sidesteps Billions in Taxes*.

<https://www.nytimes.com/2012/04/29/business/apples-tax-strategy-aims-at-low-tax-states-and-nations.html>

Duprey, R. (2017, November 10). *6 companies that are the most reliant on government*

contracts. USA Today. <https://www.usatoday.com/story/money/business/2017/11/10/6-companies-that-are-the-most-reliant-on-government-contracts/107395784/>

El Refai, A. (2016, April 11). *Washington Consensus: The impact on the developing world*.

International Development Journal. <https://idjournal.co.uk/2016/04/11/washington-consensus-the-impact-on-the-developing-world/>

Encyclopedia Britannica. (n.d.-a). *Comparative advantage ECONOMIC THEORY*. Retrieved

February 7, 2020, from <https://www.britannica.com/topic/comparative-advantage>

Encyclopedia Britannica. (n.d.-b). *Corn Law BRITISH HISTORY*. Retrieved February 2, 2020,

from <https://www.britannica.com/event/Corn-Law-British-history>

Encyclopedia Britannica. (n.d.-c). Diminishing returns ECONOMICS. In *Encyclopedia*

Britannica. Retrieved February 9, 2020, from

<https://www.britannica.com/topic/diminishing-returns>

Encyclopedia Britannica. (n.d.-d). *Fair Deal*. Retrieved February 18, 2020, from

<https://www.britannica.com/event/Fair-Deal>

Encyclopedia Britannica. (n.d.-e). *Smoot-Hawley Tariff Act UNITED STATES [1930]*. Retrieved

February 5, 2020, from <https://www.britannica.com/topic/Smoot-Hawley-Tariff-Act>

Encyclopedia Britannica. (n.d.-f). *Whig Party HISTORICAL AMERICAN POLITICAL PARTY*.

Retrieved February 5, 2020, from <https://www.britannica.com/topic/Whig-Party>

- Encyclopedia Britannica. (n.d.-g). *Zollverein GERMAN CUSTOMS UNION*. Retrieved February 7, 2020, from <https://www.britannica.com/topic/Zollverein>
- Encyclopedia Britannica. (2019, December 11). *Henry C. Carey AMERICAN ECONOMIST*. <https://www.britannica.com/biography/Henry-C-Carey>
- Encyclopedia Britannica. (2020). *Great Society*. <https://www.britannica.com/event/Great-Society>
- ENGINEERING STILL REIGNS*. (n.d.). West Point Association of Graduates. Retrieved February 16, 2020, from <https://www.westpointaog.org/west-point-magazine-summer-2014-engineering>
- Extreme Poverty on the Rise in the United States*. (2013, May 17). National Low Income Housing Coalition. <https://nlihc.org/resource/extreme-poverty-rise-united-states>
- Finland's road to prosperity*. (2006, June 30). CORDIS European Commission. <https://cordis.europa.eu/article/id/25919-finlands-road-to-prosperity>
- Fiorito, R., & Kollintzas, T. (2004). Public goods, merit goods, and the relation between private and government consumption. *European Economic Review*, 48(6), 1367–1398. <https://doi.org/10.1016/j.eurocorev.2004.01.004>
- Fletcher, I. (2011a). *Free trade doesn't work, 2011 edition: What should replace it and why*. Coalition for a prosperous America.
- Fletcher, I. (2011b, May 25). *Free Trade Isn't Helping World Poverty*. HuffPost. https://www.huffpost.com/entry/free-trade-isnt-helping-w_b_837893?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xiLmNvbS8&guce_referrer_sig=AQAAAA_j-4NhKSdArygovXdMQ2vaLHEY46yLyJNJ9M8hFkbSdEpU6hHGowj7EWgS4Tg4S_ahFxa9_DTH7g46oVf7bA0TQtSKF5luu-

tbhUwYTcEZIE13WQ_H8OYQmLPxEU8Fwn24HZ2A0_GgatLR7_TRggOR1-V-
TpxlGngqdyGuvfEK

Fletcher, I., & Ferry, J. (2011, April 17). *Japan, the Forgotten Protectionist Threat*. HuffPost.

https://www.huffpost.com/entry/japan-the-forgotten-prote_b_850269

Frieden, T. (2004, September 17). *FBI warns of mortgage fraud “epidemic.”* CNN.

<https://www.cnn.com/2004/LAW/09/17/mortgage.fraud/>

Gelderblom, O. (2016). *The political economy of the Dutch Republic*.

<https://www.taylorfrancis.com/books/e/9781315554488>

George, C. (2010). *The truth about trade: The real impact of liberalization*. Zed Books.

Gereffi, G. (2019). *Global value chains and development: Redefining the contours of 21st century capitalism* (First Edition). Cambridge University Press.

Gereffi, G., & Korzeniewicz, M. (Eds.). (1994). *Commodity chains and global capitalism*.

Praeger.

GINI index (World Bank estimate)—Country Ranking. (n.d.). IndexMundi. Retrieved February

27, 2020, from <https://www.indexmundi.com/facts/indicators/SI.POV.GINI/rankings>

Giugliano, F. (2015, March 24). *Singapore’s economic miracle uncovered*. Financial Times.

<https://www.ft.com/content/3fcb2d4c-a807-3bda-a329-6bcf9e3b5ee2>

Glenza, J. (2018, March 13). *Sky-high prices of everything make US healthcare the world’s most expensive*. The Guardian. [https://www.theguardian.com/us-news/2018/mar/13/us-](https://www.theguardian.com/us-news/2018/mar/13/us-healthcare-costs-causes-drug-prices-salaries)

[healthcare-costs-causes-drug-prices-salaries](https://www.theguardian.com/us-news/2018/mar/13/us-healthcare-costs-causes-drug-prices-salaries)

Goodwin, D. (2001, December 19). *The Way We Won: America’s Economic Breakthrough*

During World War II. The American Prospect. <https://prospect.org/health/way-won-america-s-economic-breakthrough-world-war-ii/>

- Graham-Rowe, D. (2008, June 26). *Fifty Years of DARPA: A Surprising History*. ABC News.
<https://abcnews.go.com/Technology/GadgetGuide/story?id=4866365&page=1>
- Green, A. (2013). *Education and state formation: Europe, East Asia and the USA*. Palgrave Macmillan. <http://site.ebrary.com/id/10859924>
- Green, R. H. (1983). 'Things fall apart': The world economy in the 1980s. *Third World Quarterly*, 5(1), 72–94. <https://doi.org/10.1080/01436598308419680>
- Hallward-Driemeier, M., & Nayyar, G. (2017). *Trouble in the Making?: The Future of Manufacturing-Led Development*. The World Bank. <https://doi.org/10.1596/978-1-4648-1174-6>
- Hancock, T., & Jia, Y. (2019, May 27). *China paid record \$22bn in corporate subsidies in 2018*. Financial Times. <https://www.ft.com/content/e2916586-8048-11e9-b592-5fe435b57a3b>
- Harper, D. (2019). Understanding Supply-Side Economics. In *Investopedia*.
<https://www.investopedia.com/articles/05/011805.asp>
- Harris, P. (2009, October 31). *This article is more than 10 years old How Detroit, the Motor City, turned into a ghost town*. The Guardian.
<https://www.theguardian.com/world/2009/nov/01/detroit-michigan-economy-recession-unemployment>
- Harvey, D. (2011). *A brief history of neoliberalism* (Reprinted). Oxford Univ. Press.
- Hayes, A. (2019). *Perfect Competition*.
<https://www.investopedia.com/terms/p/perfectcompetition.asp>
- Heidhues, F., & Brüntrup, M. (2011). *Lessons from Structural Adjustment Programmes and their Effects in Africa*. *Quarterly Journal of International Agriculture*.
<https://ageconsearch.umn.edu/record/155490/?ln=en>

- Heidler, J., & Heidler, D. (2020, February 9). *War of 1812 UNITED KINGDOM-UNITED STATES HISTORY*. Encyclopedia Britannica. <https://www.britannica.com/event/War-of-1812>
- Heing, B. (Ed.). (2017). *Critical perspectives on free trade and globalization*. Enslow Publishing.
- Herreros, S., & Duran Lima, J. (2011, November 7). *Reprimarización y Desindustrialización en América Latina, dos caras de la misma moneda*. Segunda Mesa Redonda sobre Comercio y Desarrollo Sostenible, Montevideo, Uruguay.
https://nanopdf.com/download/reprimarizacion-y-desindustrializacion-en-america-latina-dos_pdf
- Hickel, J. (2017, January 14). *Aid in reverse: How poor countries develop rich countries*. The Guardian. <https://www.theguardian.com/global-development-professionals-network/2017/jan/14/aid-in-reverse-how-poor-countries-develop-rich-countries>
- Hignett, K. (2018, May 1). *HERE'S HOW MUCH CARBON DIOXIDE EMISSIONS HAVE INCREASED SINCE THE INDUSTRIAL AGE*. Newsweek.
<https://www.newsweek.com/carbon-dioxide-climate-change-fossil-fuels-906953>
- History of Japan Customs*. (n.d.). Japan Customs. Retrieved February 20, 2020, from https://www.customs.go.jp/english/zeikan/history_e.htm
- Horowitz, J., Igielnik, R., & Kochhar, R. (2020, January 9). *Trends in income and wealth inequality*. Pew Research Center. <https://www.pewsocialtrends.org/2020/01/09/trends-in-income-and-wealth-inequality/>
- Humphreys, M., Sachs, J., & Stiglitz, J. E. (Eds.). (2007). *Escaping the resource curse*. Columbia University Press.

- Hurt, S. (n.d.). Washington Consensus. In *Encyclopedia Britannica*. Retrieved February 25, 2020, from <https://www.britannica.com/topic/Washington-consensus>
- Hussain, Z. (2015, March 24). *How Lee Kuan Yew engineered Singapore's economic miracle*. BBC. <https://www.bbc.com/news/business-32028693>
- Inequality in America: Gini in the bottle*. (2013, November 26). The Economist. <https://www.economist.com/democracy-in-america/2013/11/26/gini-in-the-bottle>
- Institute for Government. (n.d.). *Non-tariff barriers*. Institute for Government UK. Retrieved February 5, 2020, from <https://www.instituteforgovernment.org.uk/explainers/non-tariff-barriers>
- Japan Economic Transformation. (n.d.). In *Encyclopedia Britannica*. Retrieved February 20, 2020, from <https://www.britannica.com/place/Japan/Economic-transformation>
- Jiménez, F. (2017). Crecimiento y desindustrialización prematura en Perú 1950-2015, un análisis kaldoriano. *Economía*, 40(80), 155–222. <https://doi.org/10.18800/economia.201702.005>
- Johnston, M. (2019). A Brief History of U.S. Banking Regulation. In *Investopedia*. <https://www.investopedia.com/articles/investing/011916/brief-history-us-banking-regulation.asp>
- Jomo Kwame Sundaram, & Chowdhury, A. (Eds.). (2011). *Poor poverty: The impoverishment of analysis, measurement and politics*. Bloomsbury Academic [u.a.].
- Kapur, A., Macleod, N., & Singh, N. (2005). *Equity Strategy- Plutonomy: Buying luxury, explaining global imbalances* [Industry Note]. CitiGroup. <https://delong.typepad.com/plutonomy-1.pdf>
- Kattel, R., Ekoue Amaizo, Y., & Reinert, E. S. (2009). *The Economics of Failed, Failing and Fragile States: Productive Structure as the Missing Link*. The Other Canon Foundation.

https://www.researchgate.net/publication/237714530_The_Economics_of_Failed_Failing_and_Fragile_States_Productive_Structure_as_the_Missing_Link

Kennedy, D. M., Cohen, L., & Piehl, M. (2012). *The brief American pageant: A history of the Republic* (8th ed). Wadsworth Cengage Learning.

Kenton, W. (2018). *Maquiladora*. <https://www.investopedia.com/terms/m/maquiladora.asp>

Kenton, W. (2019a, March 26). *Externality*. Investopedia.

<https://www.investopedia.com/terms/e/externality.asp>

Kenton, W. (2019b). Trickle Down Theory. In *Investopedia*.

<https://www.investopedia.com/terms/t/trickledowntheory.asp>

Kettunen, P. (2001). The Nordic Welfare State in Finland. *Scandinavian Journal of History*, 26(3), 225–247. <https://doi.org/10.1080/034687501750303864>

Kirsch, N. (2017, December 9). *The 3 Richest Americans Hold More Wealth Than Bottom 50% Of The Country, Study Finds*. Forbes.

<https://www.forbes.com/sites/noahkirsch/2017/11/09/the-3-richest-americans-hold-more-wealth-than-bottom-50-of-country-study-finds/#38a148d3cf86>

Kohli, A. (2004). *State-directed development: Political power and industrialization in the global periphery*. Cambridge University Press.

Kucik, J. (2019, July 3). *How America's Founding Fathers felt about tariffs*. PBS.

<https://www.pbs.org/newshour/nation/how-americas-founding-fathers-felt-about-tariffs>

Lasso, R. (2010). *Democracy on trial: The case for the defense: progressive evolution or revolution*. R. Lasso.

Liberto, D. (2019). *Joseph Schumpeter*. <https://www.investopedia.com/terms/j/joseph-schumpeter.asp>

Lincoln, A. (1862, August 24). *A LETTER FROM PRESIDENT LINCOLN.; Reply to Horace Greeley. Slavery and the Union The Restoration of the Union the Paramount Object.*

[Archives]. The New York Times. <https://www.nytimes.com/1862/08/24/archives/a-letter-from-president-lincoln-reply-to-horace-greeley-slavery-and.html>

Lind, M. (2004, February). *Are We Still a Middle-Class Nation?* The Atlantic.

<https://www.theatlantic.com/magazine/archive/2004/01/are-we-still-a-middle-class-nation/302870/>

Madland, D. (2015). *Hollowed out: Why the economy doesn't work without a strong middle class.* University of California Press.

Maldonado, C. (2018, July 24). *Price Of College Increasing Almost 8 Times Faster Than Wages.*

Forbes. <https://www.forbes.com/sites/camilomaldonado/2018/07/24/price-of-college-increasing-almost-8-times-faster-than-wages/#29ffa3b766c1>

Marangos, J. (2005). Shock Therapy and its Consequences in Transition Economies.

Development, 48(2), 70–78. <https://doi.org/10.1057/palgrave.development.1100136>

Martinez, M. A. (2009). *The myth of the free market: The role of the state in a capitalist economy.* Kumarian Press.

Martínez-Torres, M. E., & Rosset, P. M. (2010). La Vía Campesina: The birth and evolution of a transnational social movement. *The Journal of Peasant Studies*, 37(1), 149–175.

<https://doi.org/10.1080/03066150903498804>

Master Government List of Federally Funded R&D Centers. (n.d.). National Sciences

Foundations. Retrieved February 16, 2020, from <https://www.nsf.gov/statistics/ffrdclist/>

Mazzucato, M. (2015). *The entrepreneurial state: Debunking public vs. private sector myths.*

PublicAffairs.

- McGee, T. G., Watters, R. F., & Sullivan, G. (2009). *Asia-Pacific new geographies of the Pacific Rim*. UBC Press. <http://site.ebrary.com/id/10134780>
- Merry, R. (2016, October 18). *America's History of Protectionism*. National Interest. <https://nationalinterest.org/feature/americas-history-protectionism-18093>
- Metcalf, S. (2017, August 18). *Neoliberalism: The idea that swallowed the world*. The Guardian. <https://www.theguardian.com/news/2017/aug/18/neoliberalism-the-idea-that-changed-the-world>
- Mitchell, W., & Fazi, T. (2017). *Reclaiming the State: A progressive vision of sovereignty for a post-neoliberal world*. Pluto Press.
- Monbiot, G. (2016, April 15). *Neoliberalism – the ideology at the root of all our problems*. The Guardian. <https://www.theguardian.com/books/2016/apr/15/neoliberalism-ideology-problem-george-monbiot>
- Moore, M. (2009). *Capitalism: A Love Story* [Documentary]. Overture Films. https://www.youtube.com/watch?v=yLDIoO_ug2c&t=1124s
- Mueller, P. (2016, January 4). *Adam Smith on Public Policy: Four Maxims of Taxation*. Libertarianism. <https://www.libertarianism.org/columns/adam-smith-public-policy-four-maxims-taxation>
- Narula, R., & Lall, S. (2006). *Understanding FDI-assisted economic development*. Routledge, Taylor & Francis Group.
- Nelson, J. I. (1994). Work and Benefits: The Multiple Problems of Service Sector Employment. *Social Problems*, 41(2), 240–256. <https://doi.org/10.2307/3096932>

- Nesbit, J. (2017, December 8). *Google's true origin partly lies in CIA and NSA research grants for mass surveillance*. Quartz. <https://qz.com/1145669/googles-true-origin-partly-lies-in-cia-and-nsa-research-grants-for-mass-surveillance/>
- Oh, K. (2010, June 14). *Korea's Path from Poverty to Philanthropy*. Brookings. <https://www.brookings.edu/articles/koreas-path-from-poverty-to-philanthropy/>
- Onyeonoru, I. (2005). Globalisation and Industrial Performance in Nigeria. *Africa Development*, 28(2). <https://doi.org/10.4314/ad.v28i2.22176>
- Palen, M.-W. (2016). *The "conspiracy" of free trade: The Anglo-American struggle over empire and economic globalization, 1846-1896*. Cambridge University Press.
- PBS. (2007, September). *War Production*. The War (PBS). https://www.pbs.org/thewar/at_home_war_production.htm
- Porter, M. E. (2014). *Competitive advantage of nations: Creating and sustaining superior performance*. Free Press. <https://www.overdrive.com/search?q=DBC4FD459-1B41-4E3F-A711-EDF553F259E3>
- Rasmussen, D. (2016, June 9). *The Problem With Inequality, According to Adam Smith*. The Atlantic. <https://www.theatlantic.com/business/archive/2016/06/the-problem-with-inequality-according-to-adam-smith/486071/>
- Reinert, E. S. (2008). *How rich countries got rich ... And why poor countries stay poor*. Constable [u.a.].
- Robinson, R. (n.d.). Postindustrial society. In *Encyclopedia Britannica*. Retrieved March 3, 2020, from <https://www.britannica.com/topic/postindustrial-society>
- Robison, R. (2006). *The neoliberal revolution Forging the market state*. Palgrave Macmillan.

- Rodrik, D. (2006). Goodbye Washington Consensus, Hello Washington Confusion? A Review of the World Bank's *Economic Growth in the 1990s: Learning from a Decade of Reform*. *Journal of Economic Literature*, 44(4), 973–987. <https://doi.org/10.1257/jel.44.4.973>
- Rodrik, D. (2009). *One economics, many recipes: Globalization, institutions, and economic growth* (7. print., 1. paperback print). Princeton Univ. Press.
- Rodrik, D. (2015). *Premature Deindustrialization* (No. w20935). National Bureau of Economic Research. <https://doi.org/10.3386/w20935>
- Rodrik, D. (2019). *Straight Talk on Trade: Ideas for a Sane World Economy*. <http://www.vlebooks.com/vleweb/product/openreader?id=none&isbn=9781400888900>
- Roldán, G. (2015). MIGRACIÓN MÉXICO-ESTADOS UNIDOS: PARADOJA LIBERAL RENOVADA DEL TLCAN. *Problemas del Desarrollo*, 46(181), 101–126. <https://doi.org/10.1016/j.rpd.2015.03.003>
- Russo, J., & Lee Linkon, S. (2015). *The Social Costs Of Deindustrialization*. Youngstown State University. <http://cwcs.yzu.edu/wp-content/uploads/2015/11/The-Social-Costs-Of-Deindustrialization.pdf>
- Rynn, J. (2011, May 23). *Six Reasons Manufacturing is Central to the Economy*. The Roosevelt Institute. <https://rooseveltinstitute.org/six-reasons-manufacturing-central-economy/>
- Sammon, A. (2019, October 31). *Boeing Is Basically a State-Funded Company*. The American Prospect. <https://prospect.org/power/boeing-is-basically-a-state-funded-company/>
- Sankar Bosu, R. (2018, August 7). *China sheds light on alleviating poverty in India*. China Daily. https://www.chinadaily.com.cn/opinion/2017-08/07/content_30354530.htm
- Singh, A. (2010, March 22). *More Asian Geese Ready to Fly*. IMFBlog. <https://blogs.imf.org/2010/03/22/more-asian-geese-ready-to-fly/>

- Sitaraman, G. (2019, December 23). *The Collapse of Neoliberalism*. The New Republic.
<https://newrepublic.com/article/155970/collapse-neoliberalism>
- Skidelsky, R. (2019). *Money and government: A challenge to mainstream economics*. Penguin Books.
- Snyder, M. (2011). *19 Sad Facts About The Deindustrialization Of America*. Business Insider.
<https://www.businessinsider.com/sad-facts-deindustrialization-america-2011-11#where-will-the-battle-be-fought-check-out-20>
- Spaghetti bowl effect*. (n.d.). Revolvly. Retrieved February 28, 2020, from
<https://www.revolvly.com/page/Spaghetti-bowl-effect>
- Stanford University. (n.d.). *The Triple Helix concept*. Triple Helix Research Group. Retrieved February 12, 2020, from https://triplehelix.stanford.edu/3helix_concept
- Stendsrud, C. (2016). *Industrial policy in the United States*. Civitas.
<https://www.civitas.org.uk/content/files/IndustrialpolicyintheUnitedStates.pdf>
- Stiglitz, J. E. (2018). *Globalization and its discontents revisited: Anti-globalization in the era of Trump*. W.W. Norton & Company.
- Stiglitz, J. E., & Charlton, A. (2005). *Fair trade for all: How trade can promote development*. Oxford University Press.
- Stilwell, B. (2019, March 24). *The US had a plan to completely destroy Germany after World War II*. Business Insider. <https://www.businessinsider.com/the-us-had-a-plan-to-completely-destroy-germany-after-world-war-ii-2019-3>
- Structural Adjustment Programs*. (2003). The Whilder Bank Group.
<http://www.whirledbank.org/development/sap.html>

Symoniak, J. (2011). *The Washington Consensus*. George Mason University.

<http://mars.gmu.edu/bitstream/handle/1920/6565/189-935-1->

[PB.pdf?sequence=1&isAllowed=y](http://mars.gmu.edu/bitstream/handle/1920/6565/189-935-1-PB.pdf?sequence=1&isAllowed=y)

Tao, L. (2019, December 26). *Huawei says relationship with Chinese government 'no different' from any other private company in China*. South China Morning Post.

<https://www.scmp.com/tech/big-tech/article/3043558/huawei-says-relationship-chinese-government-no-different-any-other>

Tena-Junguito, A., Lampe, M., & Fernandes, F. T. (2012). How Much Trade Liberalization Was

There in the World Before and After Cobden-Chevalier? *The Journal of Economic*

History, 72(3), 708–740. <https://doi.org/10.1017/S0022050712000344>

The Economist. (2015, March 12). *Made in China?* The Economist.

<https://www.economist.com/leaders/2015/03/12/made-in-china>

The Economy of Canada. (n.d.). Canada Guide. Retrieved February 19, 2020, from

<https://thecanadaguide.com/basics/the-economy/>

The Great Peruvian Guano Bonanza: Rise, Fall, and Legacy. (2011, July 13). Council on

Hemispheric Affairs. <http://www.coha.org/the-great-peruvian-guano-bonanza-rise-fall-and-legacy/>

The Marshall Plan for Rebuilding Western Europe. (n.d.). Constitutional Rights Foundation.

Retrieved February 24, 2020, from <https://www.crf->

[usa.org/images/pdf/gates/Marshall_Plan.pdf](https://www.crf-usa.org/images/pdf/gates/Marshall_Plan.pdf)

The World Bank In Singapore. (n.d.). The World Bank. Retrieved February 20, 2020, from

<https://www.worldbank.org/en/country/singapore/overview>

Ulrich, K. (2012, August 23). *125 years of “Made in Germany.”* Deutsche Welle.

<https://www.dw.com/en/125-years-of-made-in-germany/a-16188583>

UNCTAD (Ed.). (2009). *The global economic crisis: Systemic failures and multilateral remedies*. United Nations.

UNCTAD. (2019). *Structural transformation, Industry 4.0 and inequality: Science, technology and innovation policy challenges*. UNCTAD.

https://unctad.org/meetings/en/SessionalDocuments/ciid43_en.pdf

UNIDO (Ed.). (2013). *Sustaining employment growth: The role of manufacturing and structural change*. UNIDO.

UNIDO (Ed.). (2015). *The role of technology and innovation in inclusive and sustainable industrial development*. UNIDO.

UNIDO. (2018). *Industry 4.0 – the opportunities behind the challenge*. UNIDO.

https://www.unido.org/sites/default/files/files/2018-11/UNIDO_GC17_Industry40.pdf

U.S Bureau of Labor Statistics. (2020, March 3). *Manufacturing- Employment, Hours, and Earnings from the Current Employment Statistics survey (National)*. U.S Bureau of Labor Statistics. <https://data.bls.gov/timeseries/CES3000000001>

Valdes, O. (2017). *The Neoclassicals’ Conundrum: If Adam Smith Is the Father of Economics, It Is a Bastard Child*. Levy Economics Institute of Bard College.

<http://hdl.handle.net/10419/173502>

Verwoerd, A. (2019, May 24). *1.6 million farmers receive almost 85 percent of the EU’s agricultural subsidies*. European Data Journalism Network.

<https://www.europeandatajournalism.eu/eng/News/Data-news/1.6-million-farmers-receive-almost-85-percent-of-the-EU-s-agricultural-subsidies>

- Vollrath, D. (2009). The dual economy in long-run development. *Journal of Economic Growth*, 14(4), 287–312. <https://doi.org/10.1007/s10887-009-9045-y>
- Wendler, E. (2016). *Friedrich List's exile in the United States: New findings*. Springer International Publishing AG.
- Weston, J. (2007, August 28). *Joseph Livesey: The story of his life, 1794-1884*. Archives.Org. <https://archive.org/details/josephliveseysto00westiala/page/n8/mode/2up>
- Wolff, R. D., Resnick, S. A., & Wolff, R. D. (2012). *Contending economic theories: Neoclassical, Keynesian, and Marxian*. MIT Press.
- Woodward, A. (2019, November 30). *Life expectancy in the US keeps going down, and a new study says America's worsening inequality could be to blame*. Business Insider. <https://www.businessinsider.com/us-life-expectancy-declined-for-third-year-in-a-row-2019-11>
- World Bank. (2020). *Population, total—Sub-Saharan Africa, Latin America & Caribbean, European Union, Middle East & North Africa*. World Bank Database. <https://data.worldbank.org/indicator/SP.POP.TOTL?locations=ZG-ZJ-EU-ZQ>
- Wren-Lewis, S. (2014, January 24). *Ordoliberalism, Neoliberalism And Economics*. Social Europe. <https://www.socialeurope.eu/ordoliberalism-neoliberalism-economics>