The Rise and Decline of Neo-Developmentalism in Brazil:

Why is Brazilian Neo-Developmentalism on the Decline?

by

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A Thesis Submitted to the

Graduate School of Social Sciences

in Partial Fulfillment of the Requirements for

the Degree of

Master of Arts

in

International Relations

Koç University

March 2018

Koç University

Graduate School of Social Sciences

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ABSTRACT

This qualitative study illustrates the rise and decline of the neo-developmentalist model in Brazil by questioning why neo-developmentalist model in Brazil started to fall into a decline from the 2014 onward. Before looking into the underlying factors behind the decline of neo-developmentalist model, there is an attempt to examine economic and institutional features of contemporary Brazil within the theoretical framework of neo-developmentalism and varieties of capitalism (VoC). After applying two hybrid ideal types of southern VoC, hierarchical-market economy (HME) and state-permeated market economy, to the Brazil; the five pillars of neo-developmentalism are scrutinized by discussing macroeconomic and social policies of the Workers' Party (PT). In the final part, there is a hypothesis that neo-developmentalist model of Brazil under the Workers' Party is in crisis and there is a low possibility to overcome the crisis unless necessary structural and economic reforms are made.

Keywords:

Neo-developmentalism, Brazil, the Workers' Party, varieties of capitalism, development, state-permeated market economy, hierarchical market economy

ÖZET

Bu araştırma, Brezilya'nın yeni kalkınmacılık modelinin yükseliş ve düşüş teması üzerine kurulu olup, bu modelin 2014 yılından itibaren niçin düşüşe geçtiğini sorgulamaktadır. Yeni kalkınmacılık modelinin düşüşüne yol açan etkenler irdelenmeden önce, çağdaş Brezilya'nın iktisadi ve kurumsal nitelikleri, yeni kalkınmacılık ve kapitalizmin türleri kuramları çerçevesinde incelenecektir. Daha sonra örnek vakamız olan Brezilya'ya gelişmekte olan ülkelere özgü olan melez kapitalizm türleri uyarlanmaya çalışılacaktır. Bu melez kapitalizm türleri hiyerarşik piyasa ekonomisi ve devlet-egemen piyasa ekonomisidir. Ayrıca, Brezilya'daki İşçi Partisi'nin sosyal ve makroiktisadi politikaları da yeni kalkınmacılık teorisinin beş temel özelliği baz alınarak incelenecektir. Son bölümde ise, Brezilya'daki İşçi Partisi'nin benimsediği yeni kalkınmacılık modelinin bir krizde olduğu ve gerekli kurumsal ve ekonomik iyileştirmeler yapılmadığı müddetçe bu krizin aşılmasının çok düşük olasılıkta olduğu ileri sürülecektir.

Anahtar sözcükler:

Yeni kalkınmacılık, Brezilya, İşçi Partisi, Kapitalizm türleri, kalkınma, hiyerarşik piyasa ekonomisi, devlet-egemen piyasa ekonomisi

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1. Introduction

Similar to most of Latin American countries, Brazil had an expansionary economic phase during the first decade of the 2000s. The Workers' Party (PT – *Partido dos Trabalhadores*) came into power in 2002 and the former trade union leader, Luiz Inácio Lula da Silva became the president of Brazil. After being defeated in the 1989 and 1994 presidential elections, Lula da Silva managed to become the President of Brazil in 2002 through the support of a grand coalition that involves urban and rural workers, informal proletariat and lower-middle class. Following the electoral success of Lula da Silva, the Workers' Party (PT) became the ruling party in Brazil and remained in power for the next fourteen years by winning consecutively three general elections. Over the years, the PT administrations under Lula da Silva and Dilma Rousseff transformed the Brazilian economy by implementing serious macroeconomic and social policy reforms. The primary goal of the Workers' Party was to drive an inclusive growth by maintaining macroeconomic stability, increasing public revenues, developing competitive export-driven industry and eliminating income inequality. They followed a national development strategy which is coined 'neo-developmentalism' by Brazilian economist Luiz Carlos Bresser-Pereira. According to Bresser-Pereira (2009), neo-developmentalism is "a set of values, ideas, institutions, and economic policies through which, in the early 21st century, middle-income countries seek to catch up with developed countries" (p.7). In this dissertation, the notion of neo-developmentalism is adopted to shed light on the Brazilian economic development under the Workers' Party. Brazil's development strategy corresponds to neo-developmentalism in terms of five policy pillars: (1) macroeconomic stability; (2) growth with domestic savings; (3)

export-driven industrial policy; (4) strategic state intervention; and (5) redistributive social spending.

In addition to the theoretical framework of neo-developmentalism, it is benefited from the Varieties of Capitalism (VoC) theory to provide a deeper insight into the Brazilian hybrid economy. In order to reveal the institutional characteristics and intrinsic challenges of Brazil, extensive VoC literature review is conducted and two southern VoC ideal types, namely hierarchical-market economies (HMEs) and state-permeated economies (SMEs) are selected as convenient types to Brazil.

Until the beginning of the second presidential term of Dilma Rousseff in 2014, Brazilian neo-developmentalist economy continued to grow. Since then, it started to plunge due to a set of domestic and external factors. From the 2014 onwards, the neo-developmentalist PT has gone through a deep political and economic crisis.

There are many scholarly researches regarding the long-standing political power of the Workers' Party in Brazil and the impacts of their economic reforms on Brazil. Brazil's economic rise during the first decade of the 2000s was a remarkable step to retrieve the ladder of development from those who kick it away[1]. Despite a large quantity of academic researches about economic achievements of the PT administrations, there are few researches that scrutinize the failure of the neo-developmentist strategy of the Workers' Party. It is significant to examine the factors that account for the decline of neo-developmentalism in Brazil. Therefore, this research will also attempt to explore possible factors behind the decline of neo-developmentalism in Brazil.

[1] see Chang,Ha-Joon (2003) Kicking Away the Ladder: Development Strategy in Historical Perspective

In this regard, it is essential to ask why Brazilian neo-developmentalism started to decay from the 2014 onwards. In this research, there will be an attempt to identify possible factors which lead the decline of neo-developmentalism in Brazil. It will be explained in detail that the national development strategy of Brazil fell into decline due to the interplay of domestic and external factors. The underlying factors are divided into two categories: (1) domestic factors and (2) external factors. Domestic factors include the outbreak of grand corruption scandals and the cumulative effect of structural deficiencies. The first domestic factor triggered a political backlash against the Workers' Party (PT), deepened the ongoing economic recession and set the stage for criminal prosecutions against PT-affiliated politicians. The second domestic factor indicates the failure of economic transition to innovation-driven and knowledge-based economy. Structural deficiencies such as low quality education and insufficient R&D hampered the innovation-driven production. As a result, it increased the vulnerability of Brazilian economy against external shocks. The external factor, on the other hand, includes the outbreak of commodity price shock and the stagnation of Chinese economy. When all these factors were combined, it initiated a chain reaction that ends up the eventual decline of the PT. In other words, the domestic factors are interwoven with the external factors. Therefore, none of the factors can be singled out and identified as the sole reason of the decline. It was not purely due to external reasons; because if it was so; Brazil could not overcome the 2008 financial crisis in the first place. Before the 2008 financial crisis, there was a political stability and favorable economic conditions for Brazil. Consecutive election victories and rising commodity prices increased the political credibility and financial resilience of the PT. During the commodity price boom, Brazil did not need to take steps towards the innovation-driven economy; because commodity market was already highly profitable and did not require high-technology and innovation-driven investments. The lack of investments on R&D and human capital made Brazil more dependent on commodity business which involves mostly low-skilled workforce. In other words, structural deficiencies and overreliance on commodities increased the vulnerability of Brazil to external financial effects. On the other hand, the eventual decline of the PT was not purely originated from domestic reasons as well. If there had not been negative external conditions, it would have been possible for the PT to mask deteriorating effects of political scandals and structural deficiencies. However, the worsening external conditions increased the fragility of domestic setting. In other words, the decline of the neo-developmentalist PT began due to the interplay of specific domestic and external factors.

2. Theoretical Framework and Literature Review

The theoretical framework of this research involves the varieties of capitalism (VoC) approach and the model of neo-developmentalism. However, the original VoC approach that is formed by Hall and Soskice does not involve Latin American economies; therefore, some scholars (Nölke, A., Brink, T., Claar, S., and May C., 2014; Schneider, B. R., 2009) enlarged the varieties of capitalism model by constructing so called hybrid ideal types. State-permeated market economies (SMEs) and hierarchical market economies (HMEs) are incorporated into the original VoC approach to shed light on economies of the Global South. In this regard, our case country, Brazil has several features of both SMEs and HMEs. In order to shed light on the last fifteen years of Brazilian politics and economy, theories of neo-developmentalism and southern varieties of capitalism approach will be useful. In the fifth chapter, it will be comprehensively discussed how Brazil fits in neo-developmentalism, SMEs and HMEs.

2.1. Varieties of Capitalism

The varieties of capitalism (VoC) model was originally formed by Hall and Soskice (2001) as a firm-centered comparative capitalism approach. The model reveals a set of institutional distinctions among the developed capitalist economies and classifies those economies according to a typology which involves liberal market economies (LMEs) and coordinated market economies (CMEs). Accordingly, LMEs mainly consist of United States and United Kingdom and CMEs mainly composed of Germany, Japan and Northern European countries. In LMEs, firms rely on hierarchies, competition and formal contracting to operate their activities; whereas, in CMEs, non-market relationships are of primary importance which involves collaborative relationships, incomplete contracting and exchange of information within the networks of private actors (Hall and Soskice, 2001, p.8). According to the VoC approach, in each category, firms may encounter certain coordination problems vis-à-vis other actors in five spheres. These five spheres are industrial relations, vocational education and training, corporate governance, inter-firm relations, and employee relations. The ideal types of LMEs and CMEs have different institutional and relational features regarding these five spheres (p.5-15). In this regard, institutional practices in these two types are not randomly determined. There are institutional complementarities that affect the institutional practices in different spheres. Hall and Soskice (2001) define it as such:

“two institutions can be said to be complementary if the presence (or efficiency) of one increases the returns from (or efficiency of) the other (p.17). Therefore, an institutional divergence arises between these two types of economies as long as institutional complementarities are consolidated. However, the VoC approach was also subject to several criticisms as it mostly focused on developed core economies and ignores other in-between types. Some scholars have seen the theoretical omission within the original VoC approach and attempted to fill the gap by highlighting hybrid varieties of capitalism (see Nölke, A., and Vliegenthart, A., 2009, Nölke, A., Brink, T., Claar, S., and May C., 2014, Schneider, B. R., 2009). In order to extend the VoC approach with regard to hybrid types, Nölke and Vliegenthart added Dependent Market Ecomomies (DMEs) by targeting East Central European Countries; Schneider formed Hierarchical Market Economies (HMEs) by focusing on Latin America; and Nölke, Brink, Claar, and May formed State-Permeated Market Economy (SMEs) by focusing on Brazil, India and China (the BICs).

As an alternative to the original VoC approach, some scholars created new typologies which mostly explain hybrid or southern varieties of capitalism. Most criticisms addressed the parsimonious structure of the original VoC approach that is limited to two ideal types. In this respect, Andreas Nölke and Arjan Vliegenthart (2009) created a third basic variety of capitalism, Dependent Market Ecomomies (DMEs) in an attempt to apply the VoC model to East Central European (ECE) countries such as the Czech Republic, Hungary, Poland and the Slovak Republic. The distinctive feature of DMEs compared to LMEs and CMEs, is the heavy dependence on foreign capital and extended involvement of TNCs (Trans National Corporations) in ECE. According to Nölke and Vliegenthart (2009), “DMEs have comparative advantages in the assembly and production of relatively complex and durable consumer goods. These comparative advantages are based on institutional complementarities between skilled, but cheap, labor; the transfer of technological innovations within transnational enterprises; and the provision of capital via foreign direct investment (FDI) (p.672). In DMEs, TNCs hierarchically control and finance local subsidiaries from their headquarters instead of relying on international capital markets, domestic banks or local networks of shareholdings. Regarding the industrial relations, TNCs prefer low labor costs, less sophisticated layoff procedures and weak collective agreements to maintain the comparative advantages of their subsidiaries. In addition, TNCs do not implement comprehensive vocational trainings and also make little investments in high-skilled labor. Besides, DMEs are seen as mere assembly and mass production platforms; and TNCs prefer to keep innovation and R&D centers in their headquarters. In DMEs, external dependency on TNCs is a decisive phenomenon that has impacts on each institutional complementarity. East Central European countries and some Latin American countries such as Mexico extensively fit in the ideal type of dependent-market economy (DME).

The marked feature that distinguishes DMEs from liberal and coordinated market economies is its overall dependence on transnational companies (TNCs). In that sense, East Central European (ECE) countries such as Hungary, Poland and the Czech Republic and developing Latin American (LA) countries such as Mexico correspond to dependent market economies; because their domestic markets were pervaded by TNCs. Both in ECE and Mexico, foreign direct investment is the most common investment type. TNCs enter these countries through greenfield investments or mergers and acquisitions. In the 1980s, post-socialist governments of ECE and neoliberal governments of Mexico made large-scale privatizations which facilitated major foreign takeovers of state enterprises. Particularly after the emergence of NAFTA, Mexico turned into a low-cost manufacturing hub for many TNCs. In this regard, TNCs enjoyed the comparative advantages of ECE countries and Mexico which are based on "low labor costs and a skilled population with substantial knowledge of a medium level of technology" (Nölke and Vliegenthart, 2009, p.676). Low labor costs and intermediate technology in Mexico provided favorable conditions for foreign companies to establish plants of standardized production and assembly at lower costs. According to Cypher and Wise (2010), "Mexico's two major export sectors, (1) autos and auto parts and (2) electronics, are based on the advantages of relatively cheap labor along with a generally satisfactory infrastructure supporting export activities" (Cypher and Wise, 2011, p.181). ECE countries also specialize in assembly and production of durable consumer goods, varying from electronic devices to vehicles (2009, p.691). In these countries, TNCs benefit from low labor costs which derive from labor market flexibility and relatively weak collective bargaining power of working class. Fluid labor market and easy layoff practices serve the interests of foreign investors who are not inclined to invest in local R&D and vocational training. Nölke and Vliegenthart underline that "foreign corporations often import new technologies into the region and do their R&D and design elsewhere in the world because they consider ECE economies as a place for production and not for research" (2009, p.688). It is not different in Mexico where largely U.S. based TNCs establish assembly and production plants, known as *maquiladoras* or *maquilas.* Under the NAFTA agreement, U.S. based TNCs established thousands of *maquiladoras* near the U.S. – Mexican border which are producing clothing, electronics, car and aircraft components (Kose, Meredith and Towe, 2004, p.15); the main reason was that there was an abolition of trade tariffs and excess of cheap labor in Mexico (Investopedia, n.d.). Similar to ECE countries, Mexico became an assembly platform for TNCs rather than hosting R&D and innovation centers. Given the low investments of foreign companies in labor skills and innovation, there seems to be a need for public intervention regarding vocational schools and research centers in both ECE countries and Mexico. However, low quality national education and poor research activities only intensify the foreign dependency of these DMEs.

Another hybrid variety of capitalism, namely Hierarchical Market Economies (HMEs), was created by Ben Ross Schneider (2009) to examine the distinctive institutional practices in Latin America. In HMEs, as its name implies, hierarchical relations dominate all institutional spheres. There are four core institutional features in HMEs which are complementary to one another. These features are (1) the presence of diversified business groups, (2) the presence of multi-national corporations (MNCs), (3) atomistic labor relations and (4) low skills. In Latin America, the most common corporate governance form is a family-owned diversified business model. In HMEs, there are private family-owned conglomerates, known as *grupo económico* or *grupo,* which are hierarchically governed by so-called family dynasties and have investments in various sectors. Grupo Carso in Mexico, Odebrecht in Brazil and Techint in Argentina are some examples of major grupos in Latin America. Other dominant form of corporate organization in Latin America is a multi-national corporation (MNCs). MNCs have large amount of greenfield investments in variety of sectors including durable and non-durable manufacturing, electronics and finance in HMEs. In terms of corporate governance, industrial relations and innovation, MNCs act in a hierarchical way which is based on foreign technological transfer, external control of many local subsidies through mergers and acquisitions. In HMEs, industrial relations are coordinated in a top-down fashion via government regulations, while inter-firm relations are oligopolistic and state-controlled in majority of sectors. Regarding labor side, there are atomistic labor relations and weak pro-labor intermediary institutions in HMEs. In other words, trade unions are small and ineffective; and firm-labor relations are fluid, short-term and precarious. Flexible working system and large informal sector uphold unorganized and precarious labor relations. In addition, those *grupos* and MNCs choose not to invest in on-the-job trainings and vocational education of workers due to common fear that skilled workers can be poached by other corporations. Fluid labor market and technology transfer from abroad aggravate underinvestment in vocational training and lack of skill. Schneider explains that "with MNCs dominating higher-technology manufacturing, domestic business groups concentrated in lower-technology commodity sectors and services had fewer incentives to invest in R&D, hire scientists and engineers, or train highly skilled workers" (2009, p.567). Given that public education is also insufficient, there is an enduring education trap in HMEs.

In order to enlarge varieties of capitalism model and to explain diverging institutional path of large emerging economies, namely Brazil, India, China (BICs), a concept of state-permeated market economy (SME) was introduced by Nölke, Brink, Claar, and May (2014). This new hybrid variety of capitalism demonstrates that "state capitalism is not an exclusively Asian phenomenon" (p.4); but it is also present in Latin America. In SMEs, there is a strong state support for and coordination with domestic business firms and associations to enhance national development (p.6). In that sense, SMEs sharply differ from DMEs in which foreign capital and transnational corporations pervade domestic economy. There are exclusive relational and institutional mechanisms in SMEs to solve coordination problems. According to Nölke et. al. (2014), SME is "coordinated by reciprocal mechanisms of loyalty and trust between members of these (competition-driven) state–business coalitions, based on informal personal relations, family ties and shared social backgrounds" (p.6). Regarding corporate governance, leading large firms are owned by national capital in SMEs, either family groups or the state instead of multi-national investors (p.7). In SMEs, there are large domestic markets and dominance of public banks within domestic credit market. These factors reduce financial dependence of SMEs vis-à-vis foreign capital market. As a result, national firms become more immune to external shocks and pressures of international creditors (p.7). On the labor side, there is low-wage regime which is preserved by the state itself in order to enhance the competitive edge of national capital. Employee relations are based on a triple segmentation of workers "into a comparatively highly paid and well protected segment, a less well-paid and unprotected segment, and an informal sector, often in addition to segmentation between regions and industrial sectors (p.7). In terms of technological development and innovation, SMEs have strong state-business cooperation. In order to catch up advanced technological standards, firms apply reverse engineering through weak patent rights and benefit from state-led R&D (p.8). In contrast to other varieties of capitalism, SMEs have large and relatively protected domestic markets. Even though, SMEs are integrated with the global economy, they remain selective in terms of inflow of foreign capital (p.8).

2.2. The Neo-developmentalist Theory

The model of neo-developmentalism will also be employed as a core analytical notion to shed light on the post-millennium economic transformations in Brazil. It basically addresses a set of political and economic strategies which are adopted and implemented by the Workers' Party (PT – Partido dos Trabalhadores) under the rule of the President Luiz Inácio Lula da Silva and the President Dilma Rousseff. Neo-developmentalism needs to be separated from 'old' developmentalism' and 'neoliberal orthodoxy' which were both previously adopted in the history of Brazil until their eventual failures. The term, neo-developmentalism (in Portuguese 'novo desenvolvimentismo') was first used by Brazilian scholar and economist Luiz Carlos Bresser-Pereira in 2003 to bring forward an alternative model to the orthodox market-oriented model (Bresser-Pereira, 2012). After the initial success of the model, an academic meeting was held in 2010, São Paulo to discuss the characteristics of neo-developmentalism. Bresser-Pereira (2012) describes that meeting as such: "A large group of Post Keynesian and structuralist economists joined us, and in 2010 eighty of the world's most eminent development macroeconomists and political economists discussed and approved a document titled 'Ten Theses on New Developmentalism'" (p.2).

In order to understand the basic principles which neo-developmentalism is based on, a theoretical framework drawn by Bresser-Pereira has to be comprehended. According to Bresser-Pereira (2009), neo-developmentalism is "a set of values, ideas, institutions, and economic policies through which, in the early 21st century, middle-income countries seek to catch up with developed countries. It is not an economic theory but a strategy; it is a national development strategy, based mainly on Keynesian macroeconomics and structuralist development macroeconomics" (p.7). By taking into consideration Bresser-Pereira's arguments, neo-developmentalism can be outlined through five pillars: these are (1) macroeconomic stability; (2) growth with domestic savings; (3) export-driven industrial policy; (4) strategic state intervention; (5) redistributive social spending.

First pillar of neo-developmentalism is the macroeconomic stability. Neo-developmentalist policies "are not limited to the narrow neoliberal goal of monetary stability but can be defined by an umbrella term ‘macroeconomic stability’, which includes inflation control, exchange rate and balance of payments stability supported by capital controls, fiscal sustainability, low interest rates and the reduction of uncertainties related to future demand” (Morais and Saad-Filho, 2012, p.790). Bresser-Pereira (2009) asserts that macroeconomic stability and growth cannot be separated in neo-developmentalism:

> “It is difficult to distinguish macroeconomic policies from growth strategies because, in the context of a structuralist development macroeconomics, these two levels are closely intertwined. Growth is impossible without stability. The macroeconomic prices (the profit rate, the interest rate, the wage rate, the inflation rate and the exchange rate) are not just determinants of macroeconomic stability, policies in relation to them are crucial for economic growth” (p.18).

Macroeconomic stability is an integral part of the neo-developmentalism and involves certain policy measures in terms of monetary and fiscal policies. Strict monetary policies regarding interest rates and exchange rates are essential for neo-developmentalism and require a co-operation between the central bank and government to do it. Thus, as Bresser-Pereira (2009) highlights it, the central bank is not fully autonomous. The central bank and the finance ministry have “a triple mandate”: inflation targeting, competitive exchange rate and full employment (p.20).

Unlike old developmentalism, strict inflation targeting has a great value in neo-developmentalism. Inflation targeting is a key measure to maintain a macroeconomic stability. As Bresser-Pereira (2012) puts it, old developmentalism in the 1950s allowed “inflation of up to 20 percent a year” (p.6). There was a lack of interest to control the high inflation rates in most of developing countries; and it was considered as a necessity to keep the overall demand high. As a result, most of Latin American countries suffered from hyper-inflation during the 1980s and it caused high fiscal imbalance (Bresser-Pereira, 2009; 2012). For Bresser-Pereira (2009), pouring large amount of money to economy is not the right way to increase national growth; it rather leads "chronic public deficits". He rejects that the economic populism of old developmentalism was not Keynesian at all; because Keynesian economics does not solely focus on increasing overall demand at the expense of chronic public deficits (p.14-15). He explains that "Keynes always assumed (that) a fiscally balanced national economy might, for a brief while, give up this balance to re-establish employment levels"; but not at the expense of chronic public deficits (Bresser-Pereira, 2009, p.15). Neo-developmentalism therefore rejects the idea of growth through high inflation and chronic public deficits. In order to tame aggressive inflation rates, interest rates are used as a policy tool.

In neo-developmentalism, interest rates can be used as an effective tool to decrease the rising inflation rates. However, it should not exceed moderate levels; otherwise it may cause stagnation in investment rates. Even worse, it may trigger overvaluation of currency due to a massive inflow of foreign investments which is attracted by high interest rates (Bresser-Pereira, 2009; 2012). In fact, as Bresser-Pereira (2012) asserts, populist politicians of developing countries may exploit high inflation rates by raising interest rates above the equilibrium:

> "it is abused as an instrument to control inflation and to oppose the "financial repression" which low interests would represent, and that the exchange rate tends to be cyclically and chronically overvalued due to the Dutch disease and to the excessive capital inflow caused by high interest rates, by the policy of

relying on foreign savings to generate growth, by the use of the exchange rate as an anchor and by exchange rate populism (that is, the practice adopted by many vote-seeking politicians of fixing the exchange rate, which in the short run reduces inflation and artificially increases wages)" (p.5).

Ensuring competitive exchange rate is another key goal of neo-developmentalism. As mentioned above, interest rate policy is closely linked with exchange rates. If a high interest rate policy is adopted by the central bank, it may trigger the high inflow of foreign investment. Persistent high interest rates increase the value of national currency as the foreign exchange reserves increase due to the inflow of foreign investments. Over the years, if it is not fixed by policy makers, it leads the Dutch disease which means a chronic overvaluation of currency. In order to offset the Dutch disease, neo-developmentalism recommends some measures such as "the purchase and sale of reserves, capital controls, and a variable tax on exports of the products which generate the disease" (Bresser-Pereira, 2012, p.8). Neo-developmentalism asserts that a competitive exchange rate must be maintained in order to keep the export-driven sectors more competitive in the global market. A competitive exchange rate raises the aggregate investment rate and as a result, it leads the growth with domestic savings (Bresser-Pereira, 2009; 2012). Compared to old developmentalism and neoliberal orthodoxy, neo-developmentalism has a different monetary policy. Old developmentalism supported the fixed exchange rate as "it was oriented to domestic market and to the growth of manufacturing industries, which were protected from international competition" (Bresser-Pereira, 2012, p.6). Neoliberal orthodoxy, on the other hand, promotes a "free floating" exchange rate due to the premise that the market naturally makes it competitive (p.8). Conversely, neo-developmentalism "rejects the strict 'fix or float' dichotomy and, grounded in the tendency of the exchange rate to cyclical overvaluation, seeks a strongly administered floating exchange rate (p.8).

Second pillar of neo-developmentalism is the increase of economic growth with domestic savings. Bresser-Pereira puts an emphasis on growth with domestic savings within the framework of post-Keynesian and Structuralist School. He explains that in order to have a balanced current account, there must be domestic savings. In contrast to neoliberal orthodoxy which is in favor of growth with foreign savings, neo-developmentalism supports growth with domestic savings. Similar to most of Structuralist scholars, Bresser-Pereira criticizes the growth with foreign savings. The main reason is that "it causes the substitution of foreign for domestic savings rather than the increase of investments… Instead of promoting investment and savings, the increase in foreign indebtedness usually promotes consumption, causes financial fragility, and, eventually, a balance of payment crisis" (Bresser-Pereira, 2009, p.10). The overvalued currency and high interest rate policy are some of the primary factors that lead a growth with foreign-savings. Inflow of foreign direct investments that is caused by high interest rate and underperforming export rates due to uncompetitive exchange rate lead chronic current account deficits (Bresser-Pereira, 2009; 2011; 2012). On the other hand, neo-developmentalism does not absolutely reject the inflow of foreign investments only if it is not the predominant growth strategy. In old developmentalism, strong entry barriers against FDI and forced savings with import restrictions were the prevalent measures taken by developing states against the shortages of dollar reserves. However, neo-developmentalism welcomes foreign capital entries to domestic market; but does not completely depend on it (Bresser-Pereira, 2009, p.20). According to him, "only in special circumstances, when investment opportunities are high, the country is already growing fast, and the marginal propensity falls; it accepts it" (Bresser-Pereira, 2012, p.7). Fiscal discipline is one of the most critical goals in neo-developmentalism; because the role of the state in economy is highly strategic and in order to sustain an economic growth with stability, fiscal discipline needs to be maintained. Overreliance on foreign or domestic creditors can be catastrophic; therefore "its (state) apparatus must be strong, sound and capacious…its finance must be in balance…its debt must be small and long in maturity. The worst thing that can happen to a state as an organization (the state also stands for the rule of law) is to be thrall to creditors, be they domestic or foreign" (Bresser-Pereira, 2009, p.15).

As a third pillar of neo-developmentalism, export-driven industrial policy can be stated. Instead of only focusing on domestic market, the state does promote private companies to compete in global markets. Neo-developmentalism gives priority to export side of the industrial production unlike import substitution industrialization which was the *modus operandi* of old developmentalism in the 1950s. In neo-developmentalism, Bresser-Pereira (2009) highlights "the ability of developing countries to export medium value-added manufactured goods or high value-added primary products" (p.13). In this model, though export-driven policies lead private companies to focus on investing outward; the growing domestic market is equally important. In addition, as rapidly growing Asian countries like Korea and Taiwan successfully applied it, only efficient national corporations were able to benefit from industrial privileges provided by the state such as long-term investment credits with low-interest rates and tax exemptions (Bresser-Pereira, 2009, p.13). It is opposite to old developmentalism in which almost all national companies (whether it is efficient or not) were eligible to receive industrial benefits and privileges from the state. As a result, even though inefficient companies failed to compete globally and made a loss; the state incentives were already taken for granted. Over the years, its accumulated effect leads to increase in public debt ratio and even default on foreign debts as it happened in the 1980s on a global scale.

Strategic state intervention is another pillar of neo-developmentalism. Unlike in old developmentalism, the state has not a monopoly on entire manufacturing sectors in neo-developmentalism. Except a few strategic sectors such as energy and telecommunication, the state is not a sole capital owner and investor in economy. In the 1950s, many Latin American states had a monopolistic role in their domestic economy and attempted to create an economic surplus through forced savings (Bresser-Pereira, 2009, p.14). According to Bresser-Pereira (2009), neo-developmentalism supports the idea that "the state continues to play a key role, but a normative, enabling and encouraging role rather than a direct role in production" (p.14). In contemporary middle-income countries, many private companies have enough resources to finance their domestic and global operations. For this reason, neo-developmentalism views that "in all sectors where reasonable competition exists, the state must not be an investor; instead, it must concentrate on defending and ensuring competition" (Bresser-Pereira, 2009, p.14). Unlike neoliberal orthodoxy, neo-developmentalism does highlight the role of the state in economy as a legal and institutional rule maker to ensure the efficiency and fairness of competition. In contrast to economic doctrines which support the self-regulation of the markets and the minimal role of the state; neo-developmentalism advocates market regulations and strategic intervention of the state.

The final pillar of neo-developmentalism is the pro-poor redistributive stance which favors an increase in social spending and social coverage. In this regard, Bresser-Pereira (2012) asserts that neo-developmentalism is not only about the growth of gross national product; instead, the growth must be inclusive. He views development "to signify not only as increasing economic growth and industrialization, but also a reduction in social inequalities and an improvement in the living standards of the population" (p.3). He underlines the social aspect of neo-developmentalism that "the new developmentalism is usually implemented in new democracies and should also be a 'social' developmentalism – a developmentalism which is also concerned with a more equalitarian distribution of benefits in society" (Bresser-Pereira, 2012, p.8). For Bresser-Pereira (2009), cheap labor supply and the income inequality are two interrelated facts in most of developing countries and thus; the neo-developmentalist state must intervene through several social security programs to avoid it:

> "Since developing countries are dualistic countries that face the problem of an unlimited supply of labor, there is the tendency of wages to increase more slowly than productivity. Thus, there is a tendency to the concentration of income that must be checked by economic policy – particularly by a minimum wage policy and a large program of social expenditures in education, health care, social assistance and social security" (p.22).

3. Brazilian Developmentalism in Historical Perspective

The emergence of "old-developmentalism" or "national developmentalism" dates back to the 1930s which arose and spread in Latin America. Old-developmentalism reached its climax in the 1950s – 60s and towards the 1970s it was replaced with the neoliberal orthodoxy in many Latin American countries. As Bresser-Pereira defines it: "developmentalism was not an economic theory but a national development strategy. It employed economic theories to formulate, for each country in the capitalist periphery, a strategy capable of gradually leading to the development level attained by central countries" (2008, p.146). As a national development strategy, it was based on the Latin American structuralist economic theory and dependence theory. Getúlio Vargas was the political pioneer of old-developmentalism who initiated developmental policies in Brazil during his presidency in 1930 – 45 and 1951 – 54. It was until the 1980s that old-developmentalism was sustained as a national development strategy to transform the Brazilian economy into a developed industrial one. The initial objectives of old-developmentalism were the protection of infant industries and the formation of a national industrial class through import-substitution industrialization (ISI). As structuralist and dependency scholars insistently emphasized that old-developmentalism was not an alternative to the capitalist system altogether but it was an attempt to develop those under-developed peripheral countries via strong state interventionism until they reach to the developed stage of core industrial countries within the capitalist international division of labor. Bresser-Pereira (2008) formulates this mechanism as such: "first, the policy's basic objective was to promote economic development, and, second, in order for this to happen, the nation needed to define the means to reach this objective within the framework of the capitalist system, with the state as the principal collective action instrument"(p.146).

Main ideational tenets of old-developmentalism come from Latin American structuralist economic school and dependency school which are led by structuralist Raúl Prebisch and Celso Furtado and the American Marxists Paul A. Baran and Andre Gunder Frank. The essential arguments of these schools can be described as a re-integration of former colonial peripheral countries into the international division of labor not as raw material suppliers but as industrial, export-competitive and self-sufficient developed economies. These economic schools viewed the global economic structure of the 1950s-60s as extremely uneven and exploitive to undeveloped and developing countries which thus called them as under-developed countries. Andre Gunder Frank (1966) underlines the historical trajectory of underdevelopment by stating that “the now developed countries were never underdeveloped, though they may have been undeveloped…Contemporary underdevelopment is in large part the historical product of past and continuing economic and other relations between the satellite underdeveloped and the now developed metropolitan countries” (p.28). Several structuralist and dependency scholars also emphasize the foreign dependent nature of Brazilian economy since the Portuguese colonial era in terms of its inability to diversify its export items - which are restricted to only agricultural raw materials such as coffee bean. To cope with this economic challenge, Brazilian politicians adopted national developmentalism strategy dating from the 1930s that is based on import-substitution industrialism, infant-industry protection and state interventionism.

From the 1950s onwards, Brazil started to the planned industrialization; and in 1952, the Brazilian Development Bank (BNDES) was founded to lead investments in key industrial sectors, agriculture and infrastructure. However, as some scholars such as Furtado and Bresser-Pereira argue that despite the relatively high annual average growth rates between the 1950s – 70s, the old-developmentalism did not manage to prevail over its structural challenges and eventually failed and was replaced by the neoliberal market orthodoxy. Bresser-Pereira (2008) lists two factors which paved the way for the eventual failure of old-developmentalism: “(1) Industrialization is based on import-substitution, and trade is export-pessimistic; (2) there is complacency towards inflation and fiscal mismanagement” (p.159).

For the first factor, Bresser-Pereira (2008) explains that import-substitution model did not yield preferred results and led Brazil to the balance of payments crisis in the end. He emphasizes the fact that ISI and export pessimism was "one of the great theoretical mistakes of development economics" and "in the late 1960s, Latin American countries should have begun shifting decisively from the import-substitution to the export-led model, as did Korea and Taiwan". He explains two important advantages of the export-led model over the import-led model; first, in the export-led model, "the market available to industries is not constrained to the domestic market". Secondly, in the export-led model, countries implement certain industrial policies in favor of their domestic firms according to the "efficiency criterion; in other words, "only firms that are efficient enough to export will benefit from the industrial policy". However, in the import-led model, many "inefficient firms" can benefit from protection and thus it may lead the entire economy to inefficiency (p.159-160).

Second criticism of Bresser-Pereira (2008) against the old-developmentalism is related to a tendency for inflationary populist policies and fiscal mismanagement in the 1960s' Brazil. He claims that the Brazilian economy became dependent on external and domestic creditors in order to finance ISI policy and demand-side expansionary policies. In addition to fiscal expansionary policies, he advocates the necessity of balanced public budget and fiscal discipline which are also crucial for the Keynesian economics. In this respect, he points to the Keynesian economics that "Keynes pointed out the importance of aggregate demand and legitimized resorting to public deficits in recessive periods, but he never stood for chronic public deficits" (Bresser-Pereira, 2008, p.161).

Albert Fishlow (2000) also puts forward three underlying factors of the failure of import-substitution based old-developmentalism. According to it, (1) the disequilibrium of the balance of payments; (2) growing sectoral imbalance; and (3) the growing rate of inflation undermined the old-developmental model (p.340).

In his first argument, he proposes that the overvaluation of exchange rates put limitations on future exports and export taxes on the agricultural sector caused the stagnation of national exports altogether since the main export items were primary products in Brazil at that time. Besides, he emphasized that “import substitution produced an increased dependence on imports at exactly the same time it discouraged new exports. With increased domestic production of former imports, reliance on the intermediate and capital goods brought from abroad became even greater”(Fishlow, 2000,p.341). As the export incomes began to stagnate, it became difficult to finance imports of intermediate and capital goods for domestic production. Therefore, it led “increased reliance on foreign investment” (p.341). Incoming foreign investments also provided the diversification of domestic industrial production and it led the mass production of consumer durables (p.340-341). In the same respect, Gunder Frank (1984) also states the increasing import dependence of Latin America and particularly of Brazil rather than eliminating root causes of the underdevelopment: “Because the South was dependent on the import of producer goods from the North, however, import substitution really ended up substituting one import for another, instead of eliminating or even reducing the need for imports” (p.91). Also Furtado and Girvan points out that there emerged a de facto division of labor in the domestic market after MNCs stepped in Brazil to complete technical gap: “Considering the industrial system as a whole, we perceive that MNCs control the activities which rely mainly on technical progress, namely, production of durable consumers' goods and equipment in general. The State has an important share in industries producing intermediate products, and local capitalists are very strong in industries producing non-durable consumers' goods" (Furtado and Girvan, p.128).

Secondly, Fishlow (2000) underlines the growing sectoral imbalances because the food production sectors did not catch up with the high rate of urban population rise; and the suppressed price levels of agricultural sector resulted in the rising unemployment in agriculture which in return caused rural migration to urban cities. In addition, the industrial sector "could not absorb the rising urban population as the general population increased and internal migration swelled"(p.342). Also, "the new sector of temporary and part-time workers emerged" when the new and old manufacturing sectors required "improved efficiency" in workplace (Fishlow, 2000, p.342). This unequal and rapid growth increased income concentration and led the way for the constructions of "favela" neighborhoods in urban cities.

As a final factor, Fishlow (2000) points the fiscal imbalances that further deteriorated the old-developmentalism. The stagnating export incomes and rising public expenditures to meet the needs of urban population led the inflation and over-reliance on foreign creditors. Fishlow summarizes the limited ways to overcome imbalance: "increased issue of money, increased sale of internal securities and external finance" (p.342). Gunder Frank (1984) explains the vicious circle of the import-substitution model and its debt-driven mechanism:

"The import-substituting countries pursued two policies in an attempt to maintain this process. One was to get financed by international agencies like the World Bank and by governments such as the U.S. through AID. The other was to welcome the multinational or transnational corporations that sought to invest there to produce for the national and in some cases for the regional market in the South. These corporations brought in their own equipment and technology and thereby permitted the process of import substitution to continue. However, this development happened at very significant cost to national capital"(p.91).

4. Brazil's Integration into the Global Economy

In the 1990s, Brazil entered a neoliberal stage which involves a set of economic liberalization policies including deregulation, privatization, elimination of capital controls and fiscal austerity. Weyland (2004) describes the neoliberal transition that "trade liberalization opened up Latin America's closed, heavily protected economies to stiff foreign competition; the elimination of many restrictions and regulations on foreign direct investment attracted international investors who brought modern technology; and the privatization of public enterprises reversed decades of growing state interventionism and sought to turn the region's coddled private sectors, which had often lived off of public subsidies, into true entrepreneurs and the main engine of economic development" (p.144).

The neoliberal transition of Brazil occurred later than most of Latin American countries, particularly Argentina and Chile. After the military dictatorship ended in 1985, Brazil went through a dark period of economic instability, named as the lost decade, with hyperinflation, high external debt and exchange rate volatility. By having had import-substitution industrialization (ISI) for decades, Brazil had already high foreign indebtedness which eventually resulted in a default during the international debt crisis of 1980. In 1990, the president Fernando Collor de Mello exploited the economic downturn as a window of opportunity to implement orthodox economic reforms. Following the so-called Washington Consensus, Collor and his successor Itamar Franco blamed the interventionist and protectionist state policies for the enduring crisis. In a short Collor era (after serving two years in office, he was forced to resign due to corruption allegations), the Brazilian government significantly reduced import tariffs and implemented the privatization of state-owned enterprises (SOEs) which remained restricted to industries of steel and petrochemicals (Amann and Baer, 2002, p.948). The primary objective of the president Collor was to curb hyperinflation through the Collor Plan; but the plan did not yield positive results (Novelli and Galvao, 2001, p.12). Until Fernando Henrique Cardoso took in full charge of Brazilian economy, neoliberal policies were not truly implemented. As a minister of finance in the 1993 Franco cabinet, Cardoso attempted to ameliorate worsening financial conditions by preparing a major stability plan. Introducing the Plano Real in 1994, Cardoso targeted to mitigate hyperinflation and stabilize the national currency. The Plano Real worked well and it dramatically reduced the annual inflation rate from 2,489.11 percent in 1993 to 21.98 percent in 1995 (Novelli and Galvao, 2001, p.14). In addition, as a part of the Plan, Brazilian national currency, real, was pegged to the US dollar (Amann, 2005).

During the period when the Plano Real came into effect, the current account deficit of Brazil was extremely high and then-president Cardoso attempt to finance it through foreign direct investments. To attract capital inflows, interest rates were kept high. However, high interest rates not only attracted foreign capital; but also led the overvaluation of national currency and rise of unemployment. This, in return, increased the dependence on foreign capital and increased the ratio of foreign debt to GDP (Vernengo, 2003, p.65). The abolition of capital controls in the Collor era; high-interest rate policy and privatizations of SOEs under the Cardoso era attracted high numbers of

FDI inflow. According to Xu (2014), “in the early 1980s, the average FDI inflow was around $1.5 billion with several stagnations around 1983 to 1994. Then the inflow reached $4.4 billion in 1995, rising dramatically to $10.8 billion and $19.0 billion in 1996 and 1997, respectively (p.36). Despite the curbed inflation, the Plano Real generated fiscal and currency costs such as overvalued currency and high foreign indebtedness. In addition, the breakout of the 1997-8 Asian crisis and the 1998 Russian crisis led Brazil to fell into a balance of payments crisis of 1998-99 (Mollo and Saad-Filho, 2006, p.107). Soon after, the Cardoso government resorted IMF bailouts to extricate Brazilian economy from the crisis; accordingly in December 1998, IMF approved a three-year standby credit equivalent to about US$ 18.1 billion (IMF Press Release, 02 December 1998); even worse, in September 2002, IMF approved US$ 30.4 billion standby credit for Brazil which was the largest IMF credit to date (IMF Press Release, 06 September 2002). Privatization of SOEs was also a source of revenue for neoliberal Brazilian governments.

The privatization of SOEs in Brazil can be divided into two stages; first, the limited privatization of the Collor era; second, the more extended privatization of Cardoso era. However, it should be noted that privatization process in Brazil occurred on a more limited scale compared to Argentina, Chile and Mexico where full-blown privatization was made. The marked difference of privatization processes in Brazil that public development banks such as BNDES and pension funds play significant roles in the privatization of SOEs. These banks and institutions either buy privatized enterprises themselves or finance other national groups to own such enterprises (Schneider, 2009). Besides, the federal government may hold stakes or golden shares of privatized Brazilian SOEs which grant the federal government a veto right for the key decisions of such companies. During the Collor period, relatively key public industries such as steel, petrochemicals and fertilizer were privatized which had been regarded as key industries even anti-socialist military governments of the 1970s (Goertzel, 1999, p.131). According to Baer and Fleischer (2011), "33 companies were privatized during the Collor and Franco governments (1990-94), for total revenues of US$8.6 billion, and the transfer to the public sector of US$3.3 billion in debt" (p.264). At the second stage, the Cardoso government extended privatization to public utility firms, railways and banks (Goertzel, 1999, p.131). As a result, Cardoso has ended the state monopoly in infrastructure sectors. As Baer and Fleischer (2011) reveals, "the 80 privatizations in the period 1995-98 provided total revenues of US$ 60.1 billion and transfer of debt to the private sector amounting to US$ 13.3 billion" (p.264). Privatization of SOEs provided a considerable amount of cash to neoliberal governments to finance short-term debts. However, there were also external pressures of international credit organizations on Brazil regarding privatization process. There is a Letter of Intent of the government of Brazil which was written to the managing director of IMF in 1998 before receiving first grand bailout to show the eagerness and determination of the Brazilian government to make privatization. There is a part from the Letter regarding the privatization of Brazilian companies:

> In the past few years the Brazilian Government has undertaken one of the most ambitious privatization programs in the world. It has involved both the federal and subnational governments; has encompassed industries as diverse as telecommunications, energy, ports, railways, mining, steel, urban transportation, and financial institutions, and has been successful in attracting substantial participation by foreign investors. In 1999 the program will focus on the public utilities--which, in many countries, remain in the public domain. The companies to be privatized comprise most state-owned companies in the

> electrical sector--power generation and distribution--some of the remaining state banks, such as Sao Paulo's former state, now federal, Bank Banespa, the IRB Brazil Reinsurance S.A., and some water, gas, and sewerage public utilities. Competition in the recently privatized telecommunications sector will be fostered through concessions to the private sector. Concurrently, the government will continue its review of the regulatory framework for privatized public services and sectors (The Letter of Intent to IMF, 13 November 1998).

Despite implementing intense neoliberal policies, Fernando Cardoso was ironically elected once again to serve his second presidential term in 1998 by receiving votes from middle and working classes. There are three possible reasons: First, after the Plano Real, hyperinflation decreased to the single digits and it had an overwhelming impact on the daily life of population. Since the early 1980s, chronic hyperinflation has been a fact that Brazilian people became inured. Second, the IMF loan may be a factor for the reelection of Fernando Cardoso (Novelli and Galvao, 2001). Even though, the bailout package did not save the Cardoso government from all adverse effects of the crisis, it had a relieving impact on citizens as the government managed to avoid the balance of payments crisis. Third reason could be the overvaluation of currency which was generated by the Plano Real. In this regard, Novelli and Galvao (2001) argue that "the election and reelection of Fernando Henrique Cardoso cannot be understood without considering the (initial) redistributive effects of the Real Plan: the monetary-stabilization policy ballasted by the overvaluation of the currency and the importation of foreign products had repercussions both on the middleclass electorate, attracted by the exchange-rate parity and the availability of imported products, as well as on the low-income population, who benefited from the greater supply of credit and by a significant improvement in income distribution in the first months after the plan was put into effect" (p.21).

During the 1990s, Brazil had a neoliberal transition phase which created both positive and negative consequences. Through the Plano Real, hyperinflation was curbed and import-substitution industrialization was completely abandoned. On the other hand, rising interest rates, overvaluation tendency of national currency and mounting foreign indebtedness resulted in an economic downturn toward the turn of the century. As a result, Fernando Cardoso gradually became unpopular and left his presidential term in 2002.

5. Characteristics of Neo-Developmentalism in Brazil

In terms of corporate and institutional practices, Brazil corresponds to the basic features of hierarchical market economies (HMEs). In the ideal type of HME, diversified business groups and MNCs are main corporate actors which exert influence in all relational spheres in a hierarchical fashion. In Brazil, diversified business groups, also known as *grupo*, are mostly owned by notable families and hierarchically control many local subsidies in several different sectors. Family-owned Brazilian conglomerates such as Globo, Odebrecht, Camargo Corrêa and Votorantim are not just domestic actors; but they have also major outward investments in Latin America and overseas. In this regard, Brazilian *grupos* may resemble Korean *chaebols*; but there is a major difference between them in terms of the type of products that are exported. While Korean *chaebols* like Samsung, Hyundai and LG family groups mostly specialize in exports of electronics and motors; Brazilian *grupos* often benefit from the export of primary commodities. For Schneider (2009), “most of Brazil’s largest firms and earliest entries into global markets have succeeded by leveraging growth in commodities that grew in the 1990s and boomed through the late 2000s” (p.162).

Moreover, like most of HMEs in Latin America, Brazil is an appealing market for foreign MNCs. According to data from the UNCTAD report on Latin America (2012), “in 2011 Brazil was the largest recipient of FDI in the region, followed by Mexico, Chile, Colombia, and Peru”. Brazil’s net FDI inflows significantly increased from $1.9 billion in 1980 to $66 billion in 2011 (Xu, 2014, p.35). Especially after the privatizations of state-owned enterprises (SOEs) in the 1990s, foreign MNCs invested in Brazil through mergers and acquisitions. Unlike in other Latin American countries and East Central European countries, foreign MNCs were not allowed to purchase majority of shares of SOEs in Brazil; because there were selective privatization policy and public protection of key sectors from foreign takeovers in Brazil. In other countries, privatization of large state-owned companies occur via acquisitions by foreign conglomerates; but as Schneider (2009) underscores “the key difference in Brazil was the role of pension funds and the BNDES in facilitating and financing privatization” (p.174). The involvement of public banks and pension funds in privatization processes hindered the foreign takeovers in key national sectors. It is also similar regarding the privatization of national Brazilian banks. In Mexico and Argentina, domestic private banks were mostly purchased by U.S. and Spanish banking groups via acquisitions; however, in Brazil, state regulations were more restrictive regarding foreign takeovers. According to Schneider (2009),“the Brazilian government opened the banking sector to foreign firms, in principle, but in practice government regulators have been selective in approving entry and thus provide protection for the big three” (p.172). By contrast, foreign MNCs were able to pervade domestic economy in dependent-market economies like Mexico and East Central European countries.

On the labor side, atomistic labor relations and low skills are dominant characteristics of HMEs. Although Brazil has a relatively more organized labor movement and formalized contracts vis-à-vis most of Latin American countries, the enforcement of formal contracts and regulations are not perfect. Considering the large number of informal workers and unemployed population in Brazil, firms prefer the flexible working model and temporary job tenures (Cook, 2010). However, compared to other Latin American countries, Brazil's labor regulation is far from flexible; there are constitutionally supported pro-labor laws which regulate minimum working hours, dismissal and compensation procedures (Almeida and Carneiro, 2006). In terms of industrial and labor relations, Brazil had a neo-corporatist regime which denotes a tripartite cooperation including the state, business and labor unions to facilitate interest intermediation. Mahrukh Doctor (2017) states that "one such neo-corporatist arrangement was President Lula's Economic and Social Development Council (CDES), established in 2003…In many ways, the CDES can be seen as a neo-corporatist institution focused on developing consultation mechanisms between the state and civil society" (p.71). In the institutional structure of CDES, labor union and civil society representatives have the half of administrative votes (Doctor, 2007). In other words, in Brazil labor relations are coordinated in a more of a neo-corporatist way rather than atomistic relations of other HMEs. However, Brazil has in common with other HMEs regarding low R&D investments and high numbers of unskilled workers. In this regard, Schneider (2009) describes the quality of outputs and hired workers in commodity industries which have economic dominance in Brazil: "…value added per unit is low, especially by labor, either because there are few workers involved or because they are unskilled…these are old industries that are not innovation intensive and whose research and development (R&D) expenditures are consequently relatively low" (p.162). Given the facts above that the basic features of the HME represent the corporate and industrial relations in Brazil to a large extent. However, the ideal type of HME can be criticized for omitting the dominant role of the state in domestic economy. To shed light on this aspect of the Brazilian economy, another ideal type of southern VoC approach, state-permeated economy can be used.

State-permeated economy (SME) is a hybrid variety of capitalism which is created to examine the BICs (Brazil, India and China) which are neither liberal-market economies (LMEs) nor coordinated-market economies (CMEs). By introducing the ideal type of SME, scholars (see Nölke, A., Brink, T., Claar, S., and May C., 2014) put an emphasis on the distinctive character of large emerging economies. The fundamental feature of SMEs is the strong state-business cooperation which is based on "informal personal relations, family ties and shared social backgrounds" (Nölke et. al., 2014, p.6). In this model, state provides extensive support to national firms to compete in global markets and contribute to national development. Therefore, domestic economy is largely controlled by the state-led organizations and powerful family-owned conglomerates. In Brazil, there are major family-owned business groups and formerly state-owned enterprises which are known 'national champions' benefit from state protection and funding. Casanova and Kassum (2014) confirm the strategic state-business alliance that "the role of government has been instrumental through policies to protect and promote the development 'national champions', along with the use of development loans, by the public development bank BNDES to foster the competitive development of Brazilian companies in strategic sectors and support their international expansion" (p.89). In this regard, two formerly state-owned companies, Embraer and

Vale continued to receive state protection and funding even after being privatized (Schneider, 2009, p.160). Restrictive FDI regulations and strategic public support for national champions hampered foreign takeovers of those profitable national enterprises. Schneider (2009) asserts that "one of the main reasons Embraer has emerged as a national champion is that the government retained a small ownership stake (initially 7 per cent) and a golden share that grants it veto power over major ownership changes" (p.169). In SMEs, most of the major banks are controlled by the state, and those state-owned banks are important sources of funding for national capital. In Brazil, the Brazilian Development Bank (BNDES) funds several national firms through large amounts of investment credits. This, in return, helps national firms to operate their business activities without being contingent on the transnational financial organizations (Nölke et. al., 2014, p.12).

In order to better understand institutional practices and corporate dynamics of Brazil, southern varieties of capitalism, HME and SME, address fruitful insights into the Brazilian economy. The hierarchical and state-driven characteristics of Brazilian economy generate favorable conditions for the emergence of neo-developmentalist growth strategy under the Workers' Party in the 2000s. In this regard, the size of domestic economy and rich natural resources might be significant factors that led the distinctive neo-developmental path of Brazil. As the largest economy of Latin America, Brazil can be considered as a regional rule-maker which follows its own hybrid developmental path.

From the beginning of the presidency of Lula Inacio da Silva in 2003 to the impeachment of Dilma Rousseff at the end of 2015, the Worker's Party ruled the country for four consecutive terms. Under the PT administration, economic outlook of Brazil was improved to a large extent. Several neo-developmentalist policies were implemented and yielded positive results. Until the second term of Rousseff, economic and political indicators looked positive. It will be discussed below that to what extent the Worker's Party in Brazil fit in the Bresser-Pereira's model of neo-developmentalism; and how neo-developmentalist PT prospered during this term. By taking into consideration Bresser-Pereira's theoretical approach, neo-developmentalism can be outlined through six main characteristics: these are (1) macroeconomic stability; (2) growth with domestic savings; (3) export-driven industrial policy; (4) strategic state intervention; and (5) redistributive social spending.

5.1. Macroeconomic Stability

Neo-developmentalism is a hybrid development model which involves an amalgam of monetary and fiscal policies to ensure a sustainable inclusive growth with domestic savings. In this respect, the stability of macroeconomic instruments is essential for a comprehensive social development plan. In other words, "neo-developmentalist policies are not limited to narrow neoliberal goal of monetary stability… Their broader aims are summarized by the umbrella term 'macroeconomic stability'" (Morais and Saad-Filho, 2012, p.790). An economic growth strategy which is adopted at the expense of increasing budget deficits and macroeconomic instability cannot be sustainable in the long term. According to Bresser-Pereira (2009), "growth is impossible without stability. The macroeconomic prices – the profit rate, the interest rate, the wage rate, the inflation rate and the exchange rate – are not just determinants of macroeconomic stability, policies in relation to them are crucial for economic growth" (p.18). In order to foster the macroeconomic stability, there are multiple policy targets at macroeconomic level. The government and the central bank have target levels regarding inflation rate, interest rate, exchange rate and unemployment rate. Their duty is to keep these macroeconomic prices at desired levels.

Inflation targeting is one of the primary policies of neo-developmentalism to sustain the macroeconomic stability. Inflation rate must be held at moderate levels through monetary and fiscal discipline. Controlling inflation rate by means of overvalued exchange rates and high interest rates is detrimental to macroeconomic stability; because it deepens foreign indebtedness and chronic budget deficit in the long term (Bresser-Pereira, 2015; 2016). The monetary discipline with inflation targeting is a common denominator which merges neo-developmentalism with neoliberalism to a certain extent. In neo-developmentalism, there is no room for complacency on inflation unlike the ISI developmentalism of the 1960s.

From the first ruling term of Lula's the Workers' Party, the Brazilian Central Bank (BCB) consistently set inflation targets at moderate levels. Before the Workers' Party (PT) came into power in 2003, there was an anxiety among pro-market actors that Lula's the Workers' Party is likely to follow a populist program with excessive expansionary and inflationary policies (Paiva, 2006). However, during the first term, President Lula da Silva and his ministers decided to continue strict monetary policies which were already initiated by preceding Cardoso government. As an exception to their neo-developmentalist agenda, the first Lula administration used high interest rates to control inflation (Morais and Saad-Filho, 2005). Although the 1994 Plano Real (Real Plan) managed to curb hyper-inflation, a depreciation of the Real by 40 percent between

2000 and 2003 triggered high inflation rates. Until the first year of the Lula Administration, the inflation steadily rose year by year; 7.5% in 2001, 10.2% in 2002; and 12.8 % in 2003 (Flynn, 2005, p.1224). It was a primary responsibility for the neo-developmentalist Lula Administration to fight against the inflation. The traumatic experience of hyper-inflation of the first half of 1990s (2739% in 1990 and 2407% in 1994) lay behind the zero tolerance policy against inflation in the 2000s. After the Central Bank (BCB) raised interest rates in 2004 as a response to rising inflation, the GDP growth slumped in the following year. The short-term economic recession which stemmed from high interest rates and overvalued exchange rate was a side effect of the inflation targeting (Morais and Saad-Filho, 2011, p.34). According to Barbosa-Filho (2008), "the inflation targets were met only when the exchange-rate appreciated in nominal terms" and "the BCB continued to practice high real interest rates in 2004–2006 and this resulted in a gradual appreciation of the Brazilian exchange-rate, in nominal and in real terms" (p.189-191). After the high inflation was tamed through monetary instruments, the Lula Administration started to give priority to fiscal surpluses which "reduce the pressure for politically damaging interest-rate increases" (Morais and Saad-Filho, 2005, p.18). However, in the following administrations of Lula and Rousseff, the inflation targeting was never abandoned. With the words of Cornel Ban (2013), "there is no evidence that policy-makers have been considering a Keynesian tradeoff between inflation and employment. Neither have they embraced the neo-developmentalist emphasis on full employment as the main goal of economic policy" (p.303).

Neo-developmentalist policies which were initiated under the terms of Lula da Silva and Dilma Rousseff "did not replace the previous neoliberal policy framework based on inflation targeting, floating exchange rates and low fiscal deficits" (Morais and Saad-Filho, 2012, p.792). The strict monetary policies which were continued by the neo-developmentalist Lula Government led some scholars to label them as "liberal" (Ban, 2013) "political Schizophrenia" (Morais and Saad-Filho, 2005), "'Leftism' without a Leftist project" (Tavolaro and Tavolaro, 2007), and "Left neoliberal" (Morais and Saad-Filho, 2005) in an oxymoronic fashion. However, those strict monetary policies only stemmed from pragmatic reasons to avoid of currency crisis. Bernardo Appy, an economist in Lula's first administration stated in an interview that "having low inflation, a manageable public debt, fiscal stability and balance in the external accounts does not mean having a particular ideology; these elements are the minimum necessary to have an economy that works properly and a government capable of ruling" (Bruera, 2013).

In the neo-developmentalist model, setting high domestic interest rate to curb inflation or attract foreign capital inflow cannot be justified. Although the interest rate is an effective tool to control inflation, it should not be as high as orthodox market model urges (Bresser-Pereira, 2008, p.167). In order to enable economic growth and competitive exchange rate, the interest rate should be kept at moderate levels.

Over the years, the Lula and Rousseff Administrations followed a consistent path to reduce policy interest rates. High interest rate was a structural challenge that slows down the economic growth in Brazil. Excluding the first term of Lula Administration, from 2006 to 2013, both nominal and real interest rates dropped. Despite having one of the highest real interest rates in the world, Brazil's nominal SELIC interest rates had a downward trend until the year of 2014 ("Interest rates," n.d.). Only during the initial years of the first Lula Administration, nominal interest rates were increased to control inflation. However, increasing interest rates to curb inflation caused different results in Brazil compared to developed countries. As the inflation was not demand-driven in Brazil, increasing interest rates controlled inflation by increasing net capital inflows.

Therefore, it triggered the appreciation of *Real,* and accumulation of foreign reserves rather than increasing unemployment and stagnation (Weisbrot, Johnston and Lefebvre, 2014, p.7). After the year of 2011, President Rousseff continued to the low interest policy. The Central Bank's interest rate reduction in September 2011 illustrated the continuity of this trend. Even though, the Rousseff Administration was accused of being "inflationary", it was a "response to the worsening of the international economic environment caused by the euro crisis and the weak recovery of the US economy (Bresser-Pereira, 2013, p.21).

Another essential feature of the macroeconomic stability is the exchange rate stability. In neo-developmentalism, the exchange rate policy is not protectionist; instead, it should be competitive. For Bresser-Pereira, exchange rate should be "floating but managed…and aims at a competitive exchange rate that corresponds to the industrial equilibrium, i.e., to the rate that makes economically viable and tradable industries utilizing the best technology" (2009, p.11-22). In neo-developmentalism, the finance ministry and the central bank have a duty to keep exchange rate in a competitive level which can be done through buying foreign reserves or to introduce capital inflow controls. In this model, there is no fully free or floating exchange rate regime (Bresser-Pereira, 2008, p.167-168). If the inflation target is set at a very low level, it would cause an appreciation of real exchange rate. In other words, high interest rate attracts capital inflows which lead an increase in international reserves and an exchange rate appreciation. Overvalued exchange rate lowers the competitiveness of national capital and increases consumption. That means, inflation targeting via high interest rates ends up an overvaluation of exchange rate and as a result, current account deficits and financial fragility (Barbosa-Filho, 2008, p.196-197). High interest rates, growth with foreign savings and exchange rate populism may even end up leading to the chronic overvaluation of currency or the Dutch disease (Bresser-Pereira, 2009, p.10). According to Barbosa-Filho (2008), Brazil's recipe to overcome exchange overvaluation challenge is to adopt "inflation targeting with an asymmetric dirty floating" in order to keep an exchange rate stability and competitiveness. In order to fight against appreciation of exchange rate, governments should implement a number of macroeconomic measures such as "buying foreign reserves, increasing imports and reducing domestic interest rates" (p.197).

The Brazilian exchange rate started to appreciate after the first quarter of 2004, except one year depreciation in the post-2008 crisis, and reached its peak value (1.55 per US Dollars) in 2011 ("Historical Rates for the Brazilian Real," 14 August 2017). After 2004, the expanding demand in international commodity markets and inflow of foreign capital led an overvaluation in Brazilian Real. The rising international liquidity, domestic growth and "absence of capital controls" contributed to the upward trend of exchange rate (Nassif, Feijó and Araújo, 2015, p.13,). In 2009, the Finance Ministry attempted to implement capital controls to tame the exchange rate appreciation but the result was a failure. Until the end of second Lula Administration, Brazilian exchange rate continued to surge (Bresser-Pereira, 2013, p.20). Despite a decade-long currency appreciation, certain stability measures such as a reduction of interest rate by the Rousseff Administration coupled with contracting international trade and it led the recovery of exchange rate to desired rates in terms of competitiveness.

For a decade long, neoliberal policies which are based on "growth with foreign savings, high interest rates and overvalued exchange rates" were implemented all around Latin America, and deep balance of payment crises broke out in Mexica (1994), Brazil (1998) and Argentina (2001) which totally melted the national savings in those countries (Bresser-Pereira, 2009, p.1-2). In this respect, if the overvalued currency increases consumption (public, corporate and household), it may have a multiplier effect on public debt and foreign indebtedness. The increasing foreign indebtedness leads the high current account deficit which causes financial fragility and a risk of balance of payment crisis in the medium term (Bresser-Pereira, p.10, 2009).

At the outset of the neo-developmentalist PT (Partido dos Trabalhadores), President Lula adopted a strict monetary and fiscal policy with high domestic interest rates, inflation targeting and high public savings in order to reduce public and foreign debt. The high interest rate and rising international trade and liquidity enabled the Lula Administration to obtain high quantity of foreign reserves (Barbosa-Filho, 2008, p.198). Through the accumulation of foreign reserves, "Brazil repaid ahead of time the US$23.3 billion Cardoso-era International Monetary Fund loan" (Morais and Saad-Filho, 2011, p.35). Under the Lula Administration, current account deficits were reduced by the means of fiscal surpluses. Consolidating the former President Cardoso's fiscal surplus targets, the first Lula Administration increased state revenues and public surpluses (Ban, 2013, p.305). During the Lula Administration, the fiscal surplus to debt ratio was considerably higher than the previous Cardoso era and social expenditures were funded through tax raises rather than public deficits (Onis, 2008, p.119). Barbosa-Filho also highlights tax increases in the first term of Lula: "the increase in the government's primary surplus under Lula was obtained through an increase in tax revenues rather than through a reduction in government expenditures (Barbosa-Filho, 2008a, p.201). In this period, the favorable trade climate, commodities boom, and consequently, rising fiscal surpluses and foreign reserves constituted an optimistic belief that "the foreign disequilibria were being corrected and … (Brazil) was "eliminating" its foreign vulnerability" (Bresser-Pereira, 2016, p.6). However, the appreciation of Real during the second Lula Administration (2007-2011) increased private consumption and current account deficits. According to Bresser-Pereira (2016), in this period, "positive current account balances were then reversed, and the foreign debt's downward path changed, but international reserves continued to grow exponentially (p.6).

5.2. Growth with Domestic Savings

Some quantitative researches (see Houthakker, 1961, 1965; Modigliani, 1970; Carroll and Weil, 1994) illustrate that there is a strong positive correlation between domestic savings and economic growth, other things being equal, in the long run. However, it would be a misleading assumption that there is necessarily a causal relationship between these two variables. The economic growth can be boosted only if domestic savings can be turned into investments which are based on high total factor productivity (TFP). In addition, some researches (see Carroll, Christopher, Overland, and Weil, 2000; Aghion, Comin, Howitt, 2006) attempt to explain why and when there is a significant association between domestic savings and the economic growth in the global economy. According to them, domestic savings rate becomes a significant factor on the economic growth for those countries that lack high technological and innovative capacity; whereas, high domestic savings do not have a serious effect on the growth for those countries which have high technological infrastructure and investments to begin with. The very explanation for this assumption is that technologically advanced countries have already local firms which make investments in innovative projects. Therefore, there will be growth-boosting innovative projects regardless of financing and attracting foreign investors. On the other hand, developing countries can make large investments on innovative sectors through foreign or domestic investments which are financed by local banks and thus domestic savings.

In order to have a long-term sustainable growth and current account surplus, a country should have a high gross domestic savings rate. A growth strategy with overreliance on foreign capital increases the external vulnerability and eventually ends up with a balance of payment crisis. For the neo-developmentalist model (Bresser-Pereira, 2009; 2011), an economic growth must be maintained through domestic savings which is resulted from high TFP, trade surplus, tax increases and competitive exchange rate. In this regard, Bresser-Pereira (2009) states that "new developmentalism believes… it is not only necessary but possible to increase domestic saving, but, for that, the first condition is to have a competitive instead of a chronically overvalued currency that increases artificially wages and consumption" (p.20). In other words, competitive currency also matters regarding the domestic savings; because it can boost the national revenues through high exports.

Neo-developmentalists are also diverging from those neo-liberal thinkers on the basis of saving strategies. Neo-developmentists reject heavy tax-cuts and the reduction of public investment capacity. In this respect, neo-developmentalists are against the sheer substitution of private (domestic or foreign) savings and investment with the public savings and investment. If domestic savings, particularly public savings, begin to shrink for a long time, it may end up a fiscal crisis. The fiscal crisis of the state in Latin America during the 1980s mainly stemmed from "(1) a budget deficit; (2) negative or very small public savings; (3) excessive foreign or domestic debt; (4) poor creditworthiness of the state (lack of confidence in the national money and in the short-term maturity of the domestic debt); and (5) the government's lack of credibility (Bresser-Pereira, Maravall and Przeworski, 1993, p.20-24). The root cause of the Brazilian fiscal crisis was the collapse of public savings which occurred due to high international debt, rising public expenditures and falling taxes (Krieckhaus, 2002, p.1706-7).

An economic growth can be sparked through domestic savings only if such savings are transformed into productive investments (Krieckhaus, 2002; Aghion, Comin and Howitt, 2006). When the public savings are transferred to SOEs and private sector in an efficient way, it will enhance the national investment and thus the economic growth. In this respect, The National Development Bank (BNDES) is a significant tool for allocating resources to both public and private enterprises (Krieckhaus, 2002, p.1705). Given the below table, there is a strong positive correlation (0.83) between gross domestic savings and annual GDP growth in Brazil within the period of 2006 and 2014. For the same time frame, another table illustrates a relatively weak positive correlation between domestic savings and domestic investment. In other words, an increase in domestic savings is associated with an increase in national investments and thus an economic growth ("Gross capital formation," n.d.).

Between 2006 and 2014, during the presidential term of Lula da Silva and the first term of Dilma Rousseff, the gross domestic savings rate is on average 20.0% which is lower than the average GDS rate (2006-2014) of the world (25.1%), Latin America & Caribbean (21.3%) and the European Union (22.1%) ("Gross domestic savings," n.d.). The domestic savings increased after the Workers' Part took office in the 2000s and it fluctuated at around 20% for a decade albeit it is still lower than the world standard. Accordingly, there are some critical researches which put an emphasis on the close link between an exchange rate, interest rate and domestic savings. A research illustrates that over-appreciated real exchange rates tend to reduce domestic savings; because a competitive exchange rate reduces aggregate consumption and boosts national investments and thus, national savings (Araújo, Bresser-Pereira, Gala, 2014). Furthermore, there are deteriorating effects of low domestic savings on a stability of interest rates. A lower domestic savings accounts for the higher interest rates in return. This explains the high interest rates in Brazil compared to the world standard. In a country where the domestic savings rate is low, there is an upward pressure on the interest rates in order to mitigate high inflation and meet rising investment needs (Mendes, 2015). According to Segura-Ubiergo (2012), "…increasing domestic savings would seem to be the single most important factor to reduce real interest rates in Brazil over time" (p.15). Although, Brazilian domestic savings began to recover during the Workers' Party era, it still has a room to grow further. In this respect, Hausmann, Rodrik and Velasco (2006) suggesting a recipe to increase the Brazilian national savings: "it (Brazil) increase national savings by reducing government entitlements and waste. The direct effect would be higher aggregate savings, lower interest rates, better public debt dynamics, and lower intermediation margins, as well as a potentially positive effect on foreign savings" (p.15). Given the fact that, neo-developmentalism does not rely on foreign savings to sustain an economic growth.

TABLE 1:

Year	Gross Domestic Savings (% of GDP)- X	Gross Domestic Investment (% of GDP)- Y
2006	20.5	17.8
2007	21.1	19.8
2008	21.4	21.6
2009	18.3	18.7
2010	20.7	21.8
2011	21.0	21.8
2012	20.0	21.4
2013	19.3	21.6
2014	17.8	20.5

*Dataworldbank.org

COV(x,y): Covariance	0.48
r(x,y): Correlation Coefficient	0.25

TABLE 2:

Year	Gross Domestic Savings (% of GDP)- X	GDP Growth (Annual %) – Y
2006	20.5	3.9
2007	21.1	6.0
2008	21.4	5.0
2009	18.3	-0.1
2010	20.7	7.5
2011	21.0	3.9
2012	20.0	1.9
2013	19.3	3.0
2014	17.8	0.5

*Dataworldbank.org

COV(x,y): Covariance	2.66
r(x,y): Correlation Coefficient	0.83

5.3. Export-driven Industrial Policy

Another primary feature of neo-developmentalism is the export-driven industrial policy. Any country which follows a neo-developmentalist path has to be competitive in regional and international markets. The growth of business and trade can be enhanced only if it is combined with competitive export-oriented policies. This model does not exclude the importance of domestic markets. The public and private companies take advantage of investment opportunities both in domestic and global markets. The strategic role of the State is to ensure that the most efficient and promising private corporations are supported and encouraged to make investments on a global scale. This practice is similar to what East Asian Tigers did in the 1960s: The export-driven State and private sector alliance which is based on the criterion of efficiency. In this respect, South Korea followed the pattern of export-oriented development through the cooperation of State and family-controlled conglomerates, *chaebols*, to compete successfully on a global scale. For Bresser-Pereira (2009), the developing countries must have the capacity to export at least "medium value-added manufactured goods or high value-added primary products" (p.13). However, the ultimate goal is to be able to export high value-added manufactured goods such as electronics and biomedical manufacturing like those economically developed countries export.

During the ruling era of the Workers' Party (PT), Brazil never suffered from trade deficits and its exports consistently increased each year (Morais and Saad-Filho, 2011, p.36). During the Presidency of Lula da Silva (2003 – 2011), trade balance of Brazil never fell below US 10 billion Dollars; and except the year of 2009, Brazilian exports continued to grow to its historic peak in 2011. Although the exports had a persistent downward trend during the office of President Rousseff, trade balance did not turn into a deficit (see The Observatory of Economic Complexity and Central bank of Brazil)[2]. The national export competitiveness and trade surplus also prevented the further expansion of the current account deficit. However, the current account deficit continued to increase rapidly after 2007, due to the imbalance of "the primary income account (profits and dividends, interest payments and salaries)" and "the services account (international travel, transportation, rental of equipment, insurance)" ("Brazil's Current Account," January 27th 2016). The sustained trade surplus which is based on export-oriented manufacturing and agricultural sectors is one of the great achievements of neo-developmentalist Brazil.

In order to boost the exports and to promote the global competitiveness of national corporations, the Brazilian government initiated new industrial reforms in 2003, 2006, and 2008. These reforms supported the technical innovations and the development of high and medium technology sectors (Ban, 2013, p.310-312). During the first term of Rousseff administration, the Bresil Maior Plan (PBM) which was worth 16 billion US dollars was initiated in order to provide vocational trainings, and further R&D investments in various sectors (Ban, 2013, p.312). In collaboration with the Brazilian Development Bank (BNDES), PBM was successfully implemented for the purposes of "(1) expansion and simplification of financing for investments and exports; (2) increase in resources for innovation; (3) stimulus to the growth of micro and small businesses;

[2] Monthly bulletins and Press Notes of the Central Bank of Brazil (http://www.bcb.gov.br) and Ipeadata (http://www.ipeadata.gov.br).

(4) strengthening of commercial defense; and (5) creation of special regimes to add value and technology in production sectors" ("Brasil Maior Plan," 2011).

During the ruling terms of the Workers' Party, the export of the high and middle technology manufactured goods (transportation, machinery and chemical goods) increased in quantity; however, the share of those manufactured goods in total exports diminished due to the dominance of the primary products. The primary products which constitute the largest segments of total exports are mainly soy beans, iron ore, crude oil, and raw sugar (The Observatory of Economic Complexity, n.d.). China and United States are the biggest export markets for Brazilian goods. Since the first presidential term of Lula da Silva, the Brazilian exports to China gradually increased from US 4,533 billion Dollars in 2003 to US 46,026 billion Dollars in 2013 (World Integrated Trade Solution, n.d.). However, the type of goods that China and United States demand from Brazil differs. Although soy beans, iron ore and crude petroleum constitute 75 percent of total exported goods to China in 2015; the top three products that United States demanded in 2015 were planes/helicopters (12%), crude petroleum (10%) and gas turbines (4.4%) (The Observatory of Economic Complexity, n.d.). When it comes to Brazilian export giants, there are two giant conglomerates which boost the Brazilian exports: these are Brazilian Petroleum Corporation (*Petrobras*) and aerospace conglomerate, *Embraer*.

Brazil has Latin America's largest energy corporation, Brazilian Petroleum Corporation or *Petrobras* which operates business all over the world with its high technology deep-water drilling techniques. In 2006, "unexpectedly large oil reserves were discovered in the so-called Pre-Salt levels, transforming the country into a potential major oil exporter" (Schutte, 2013, p.49). This development provided energy independence to Brazil. The Pre-Salt (*Pré-Sal*) layers which "comprise large accumulations of excellent quality, high commercial value light oil" ("Pre-Salt,"n.d.) can only be reached through ultra-deep drilling methods. Because of the innovative drilling techniques and accumulated knowledge, semi-public energy giant *Petrobras* acquired great advantage in global markets.

TABLE 3 Major Exports by Items (%/Total)

	Vegetable Products	Mineral Products	Foodstuffs	Metals	Machines	Transportation
2003	9.5	11	13	11	12	11
2004	9.4	12	12	12	12	13
2005	7.7	15	11	12	13	13
2006	7.6	16	12	12	13	12
2007	8.8	17	11	11	11	12
2008	9.6	20	11	11	10	11
2009	12	19	15	7.9	8.9	8.5
2010	10	26	13	7.3	7.9	8.7
2011	12	28	13	7.8	7.5	7.7
2012	13	25	13	7.2	7.8	8.2
2013	15	22	13	6.4	7.2	11
2014	16	22	12	7.0	7.3	7.5

Source: atlas.media.mit.edu

Another major exporter national corporation is *Embraer* which is the world leader of the regional airlines market. *Embraer* manufactures mostly short-range passenger aircrafts and has a strong competition with Canadian aerospace corporation, *Bombardier*. Brazilian aviation giant also manufactures "turboprops, military aircraft, agricultural aircraft, business aircraft, helicopters and other general aviation aircraft"

(International Trade Administration, 2016 p.1). Each year since 2006, *Embraer* managed to supply more regional jet deliveries than its great competitor *Bombardier* and thus became the global sector leader (International Trade Administration, 2016, p.1). There is a fierce rivalry between *Embraer* and *Bombardier*; and it was heightened when Embraer's Chief Executive and Brazil's Foreign Ministry applied to World Trade Organization (WTO) in 2016 for that *Bombardier* has taken US 5.4 billion Dollars subsidies by the Canadian Federal Government to develop its new airliner program ("Brazil to challenge Canada," 19 December 2016). With its high value-added aviation products and services, *Embraer* has a positive impact on the Brazilian trade surplus. In this respect, "Brazil is a major supplier of aerospace equipment to the United States, but it competes more in sales of final aircraft than in sales of parts and components" (International Trade Administration, 2016, p.2). In 2017, Embraer CEO stated that they will increase deliveries for emerging markets particularly Asia-Pacific region despite the high market uncertainties (Miyamoto, March 9 2017). Although the above table illustrates a downward trend in relative export percentage of transportation products since the 2008 global crisis, these are the most promising national products in the long term because of high value-added technological infrastructures. For neo-developmentalism, high value-added manufacturing has an utmost importance for increasing trade surplus and reducing technological dependency on developed countries.

The table above displays major export items within total exports of Brazil between 2003 and 2014. The data confirms the aforementioned statement that the percentage share of manufactured products in total exports decrease due to a rapid increase in exports of primary products. Although neo-developmentalist industrial program is restructured to diversify export products in favor of high and middle value-added products, latest technological developments also increased the productivity of primary products. After Pre-Salt oil reserves was discovered in 2006, the share of primary mineral products incrementally increased to its peak in 2011 (28 percentage). The exports of vegetable products (mainly soybeans and coffee) had a rising share in total exports after 2011, due to the rising international prices and demand (Ministry of Agriculture, Livestock and Food Supply, 2012). According to another explanation of this upward trend of exported vegetable products, the depreciation of the Brazilian *Real* against the dollar encouraged farmers to produce more for the international markets ("Brazil in recession," 15 December 2015). This partly explains the consistent rise of agricultural exports while there was a sharp cut in exports of mineral products in 2013 due to the global commodity slump.

5.4. Strategic State Intervention

The degree of involvement of the state in economy as a whole is a good indicator of an adopted economic model in a given country. Neo-developmentalism involves a set of principles which defines the role of the state regarding economy. It advocates neither excessive nor limited state intervention. According to the neo-developmental model, the state acts as a regulator and a strategic investor to enhance national development to catch up with advanced economies. Unlike centrally planned economies which had a public ownership of an entire heavy industry in the 1960s' Latin America, the neo-developmental model rejects monopolistic tendencies that leave no rooms for private capital accumulation and business investment. This model also rejects the neoliberal assumption that all public enterprises have to be privatized for creating a more competitive market and well-functioning economy.

The patterns of state intervention have significantly shifted in Brazil over the years. The once strong state which was a prominent capital investor in manufacturing industry in the middle of the 20th Century has evolved into a more of a cooperative body which assists national private capital (Ban, 2013). From the beginning of the 1990s, neoliberal leaders such as Fernando Collor de Mello, Itamar Franco and Fernando Henrique Cardoso initiated large-scale privatizations of capital-intensive public enterprises. After the Lula government took office in 2003, the role of the state in economy was once again turned into an interventionist model. Following the second term of Lula administration, the state accelerated its collaborative policies with national private entrepreneurs to improve technological and innovative capacity of manufacturing sectors. According to Ban (2013), "Lula's innovation policy also included tax incentives, subsidies, coordination with universities and virtuous circles among the state and the innovative core of public and private enterprises"(p.310). The ultimate goal was to create a self-sufficient and competitive export-driven economy.

During the administrations of Lula da Silva and Dilma Rousseff, the strong state continued to retain control over certain strategic sectors such as energy and transportation. The federal government of Brazil has still a great influence on prominent national conglomerates such as *Embraer and Vale.* Even though some of these major conglomerates were privatized in the 1990s, the federal government still holds exclusive corporate rights within those corporations. This enabled the federal government to influence the executive strategies of major national conglomerates. The prominent

Brazilian industrial giants; *Embraer* and *Vale* are perfect examples which are subject to the strategic state intervention during the Workers' Party terms.

With more than 19 thousand employees all around the globe, more than 5 thousand aircraft deliveries in total and with the growing customer base and high technological investments, Embraer is the success story of the Brazilian strategic state intervention ("Embraer in Numbers," n.d.). In 1969, Embraer, Empresa Brasileira de Aeronáutica S.A., was established by the State in order to develop national military and civilian aeronautic vehicles ("Who We Are," n.d.). With the great efforts of the Brazilian government, Sao José dos Campos, a small town, was transformed into an "aeronautical industry's hub" where Embraer was founded; and in order to assist the development of the company, then-government also established "an Aeronautical Technical Center, an Aeronautical Technology Institute and a research & development institute in the same town. When it was founded, the Brazilian government had a corporate right to hold at minimum 51 percent of Embraer's equity. It indeed provided certain state-backed privileges and rich capital resources to Embraer from the beginning (Ghemawat, Herrero, Monteiro, 2009, p.2). Some of the state-backed privileges provided to Embraer were that: (1) "Federal agencies had to purchase from Embraer rather than competitors; (2) Embraer would pay no taxes and duty on imported raw materials, parts and equipment unavailable locally; (3) Brazilian corporations could invest 1% of their federal income tax obligations each year in Embraer's shares" (Ghemawat, Herrero, Monteiro, 2009, p.2). In addition to the substantial state support to Embraer, a significant portion of Embraer's shares were owned by the foreign and national private capital which brought considerable entrepreneurial momentum and competitive edge. In this respect, the half of the board of directors of Embraer was selected from private shareholders and executives. The great leap of the company to a major global success was backed by the so-called "triple alliance" which consists "multinational enterprises, local private companies and SOEs" (Musacchio and Lazzarini, 2014, p.13). The company's growing reputation and innovative capacity were further accelerated after the privatization of Embraer in 1994. Despite the high popular discontent, the privatization of the company became the breaking point that paved the way for the global success and competitive transformation of Embraer. Since the privatization, Embraer firmly accomplished its objectives for becoming a sectoral leader in the world. However, the strategic state intervention in the company's management never ceased to exist. In this respect, "there is a special class of shares (golden shares), held by the Government, that guarantees it veto rights when it comes to certain strategic issues involving the company and the Brazilian State" ("Governance", n.d.). In addition, according to the By-Laws, the number of foreign shareholders was restricted to 40% regarding the voting process at the General Meeting when an executive decision was taken (see "Governance", n.d. and see Monks and Minow, 2011, p.420).

Yet another strategic Brazilian conglomerate is Vale which has a worldwide reputation in mining and logistics sectors. The company is the world's leading producer of iron ore, pellets and nickel and has foreign offices in around 30 countries in the world ("About Vale," n.d.). During the first phase of large-scale privatizations in 1997, the majority of Vale's shares were bought by a special purpose company, Valepar which is currently the controlling shareholder of Vale Corporation with 53,9 percent of shares ("Shareholding Structure," n.d.). Valepar is a special purpose company which is formed by the state development bank, BNDES, and four state pension funds to run the mining giant, Vale as the largest shareholder. Similar to the corporate structure of Embraer, the Brazilian Government also retains 12 golden shares of Vale ("Major Sharholders," 31 December 2014). Given the fact that, the Brazilian government has a veto power upon certain corporate matters: "(1) A change in the company's name; (2) A change in the location of the company's head office; (3) A change in the company's corporate purpose as regards mining activities; (4) Any change in the by-laws relating to the rights afforded to the classes of capital stock issued by us; and (5) Any liquidation of the company" ("Corporate Governance," n.d.). The corporate structure has shown that the Brazilian government holds key veto powers within the company and there is a group of state pension funds and the state development bank (BNDES) which constitute Valepar with the majority of shares of Vale. Similar to other privatized national conglomerates, there is a regulatory state presence within Vale which exerts political influence on some key corporate decisions. In this respect, the political influence on the designation of Vale's chief executive officers confirms the state intervention in private or semi-private companies in Brazil. In 2011, the CEO of Vale SA, Roger Agnelli who passed away in 2016 in a mysterious plane crash was replaced by Murilo Ferreira as a result of high political pressure by then-president, Dilma Rousseff (Ellsworth and Luna, 4 April 2011). Ironically, the contract of Murilo Ferreira, the CEO of Vale, was not renewed in May 2017 and ousted from his position due to the political intervention of the president Michel Temer (Valle and Millard, 25 February 2017). According to another explanation, the dismissal of the former CEO of Vale, Roger Agnelli was the result of a deep-seated conflict between the government and Agnelli regarding the global expansion strategies of the company. The clash of opinions and disagreement between the government and the CEO related to the growth strategies of Vale resulted in the replacement of Vale's CEO (Rodrigues and Dieleman, 2017, p.280-88). As another direct political intervention, Nelson Barbosa, the former executive secretary of the Brazilian finance ministry and advisor of Dilma Rousseff joined the board of directors of Vale in 2011 (Grudgings, 20 April 2011). The state has never left these national conglomerates completely on the hands of private capital; instead, the state strategically controls such conglomerates in cooperation with private shareholders.

5.5. Redistributive Social Spending

Redistributive social policy is one of the pillars of neo-developmentalist model. That is why this economic model is also named "social developmentalism" – a developmentalism which gives priority to social distribution and income equality (Bresser-Pereira, 2012, p.8). In developing middle income countries, while productivity and growth tend to rapidly increase, it does not always lead improvements in wages and livings standards. Consequently, it tends to end up with the concentration of income if it is not fixed through social assistance programs, social security and minimum income policies (Bresser-Pereira, 2009, p.22). In this respect, neo-developmentalism advocates inclusive growth which is based on the equal distribution of wealth. Bresser-Pereira (2012) views development "to signify not only as increasing economic growth and industrialization, but also a reduction in social inequalities and an improvement in the living standards of the population" (p.3). Therefore, neo-developmentalism has a claim to eradicate social inequality by creating a robust economy and social welfare regime. The neo-developmentalist Partido dos Trabalhadores (Workers' Party—PT) administrations in Brazil had a mission to overcome enduring social inequality which dates back to colonial times.

Prior to the electoral victory of Lula da Silva and his party in 2003, there was a popular support for the Workers' Party by an alliance which consists of unionized urban/rural, formal/informal working class, middle/lower sections of public service and also professional middle class. Their support for the Worker's Party stemmed from optimism that Lula and his political cadres were prone to implement expansionary and redistributive policies (Morais and Saad-Filho, 2011, p.32). Lula's commitment to social policies attracted voters who had distrust and frustration toward neoliberal governments. Throughout the ruling terms of PT governments, major social programs were initiated, particularly Bolsa Família and Brasil Sem Miséria; social security coverage was expanded on a large scale; and the minimum wage was consistently increased (Morais and Saad-Filho, 2011, p.35). The poverty rate in Brazil fell from 35.8 in 1996 to 30.3 in 2007; and the extreme poverty rate dropped from 27% in 1996 to 17% (of national population) in 2007 (Kingstone and Ponce, 2010, p.114). In addition the real value of minimum wage in Brazil reached an average annual growth rate of 6.6% under the Lula administration; compared to 2.6% annual rate in the years of Cardoso administration (Kingstone et al., 2010, p.116).

Under the President Lula da Silva and Dilma Rousseff, major social assistance and conditional cash transfer (CCT) programs were introduced in order to improve life standards of citizens and eliminate poverty. Extensive social programs of the PT administrations differ from the preceding Cardoso government's minor legislative reforms. Hunter and Power (2007) assert that "while Cardoso's was a government of reforms, Lula's has been a government of programs…The Lula government's social policy accomplishments are programs controlled by the executive, which do not require legislative wrangling to be enacted" (Hunter and Power, 2007, p.17). Conditional cash transfer (CCT) programs were the most comprehensive ones among those government programs which need to be clarified. Over the years, several large-scale CCTs were initiated in Latin America – the pioneer programs, Oportunidades/Progresa

(Opportunities/Progress) in Mexico in 1997, and Programa de Asignación Familiar (Family Assistance Program) in Honduras in 1998 - which aimed to support those needy households (Burton, 2013, p.200-201). By 2011, CCTs had already spread to 18 countries and included about 129 million beneficiaries throughout Latin America (Stampini and Tornarolli, 2012). Among those CCTs, Bolsa Família (Family Grant) and Brasil Sem Miséria (Brazil without Poverty) were the largest social programs of Brazil in terms of the scope and efficiency which were implemented under the Lula and Rousseff administrations.

Since 2003, Bolsa Família (Family Grant) is the largest CCT program of Latin America and is considered as the centerpiece of President Lula da Silva (Hunter and Power, 2007, p.18). It targeted to end intergenerational poverty of Brazilian households through conditional cash transfers which stipulate certain responsibilities such as "regular school attendance, health check-ups for children, pregnant women and lactating mothers, complete vaccination records, and participation in training sessions focusing on nutrition and health" (Stampini and Tornarolli, 2012, p.2). Those households which earn monthly less than R$120 are deemed eligible for payments. According to classification, those households whose income is between R$60 and R$120 per month are considered "poor" and can earn up to R$73.66; and those households whose income is less than R$60 per month are considered "extremely poor" and are eligible to earn up to R$111.72 (Ministry of Social Development and Fight against Hunger, n.d., p.9). Bolsa Família is by far the largest CCT in Latin America that reached to 14 million beneficiary families as of 2014 (Hellmann, 2015, p.9) The number of beneficiary families rose from 3.6 million in 2013 to 14.1 million in 2014 (Ministry of Social Development and Fight against Hunger, June 2014). The positive impacts of the program on the reduction of income equality and improvement in basic services such as school attendance, healthcare and nutrition are considerably high (see 1. Soares, Ribas and Osório, 2010; 2.Pereira, 2015). Since the outset of the program, the income equality significantly increased. The Brazilian Gini index fell by 11.2 percent from 2003 to 2014 ("GINI index," n.d.). Another positive outcome of the Bolsa Família is the rising empowerment of women. As a part of the program, monthly cash payments are directly transferred to female members (particularly mothers) of registered households. This, in return, increases the economic autonomy and decision making power of women (Khazan, April 8, 2014). Theoretically, transferring the cash to female recipients is likely to cause that the sources will be spent for the benefit of entire family (Bartholo, November 2016, p.1). According to a qualitative research which contains two separate samples, 5414 total households for Sample 1 and 7928 total households for Sample 2, Bolsa Familia program had a positive impact on women's decision-making power. Accordingly, there is a "nearly 10 percentage point increase in women being the sole decision maker regarding contraception use… and weakly significant increases in women's decision-making power regarding purchase of durable goods and children's health expenses" (Brauw, Gilligan, Hoddinott and Roy, 2014). In other words, Bolsa Família's economic and social impacts on poor citizens, especially women and children, are noteworthy. Besides, compared to its counterparts, Bolsa Família had a lower cost (around 0.6% of GDP), greater scope and had serious impacts on the life standards of the poor (Tepperman, 2016; and Wetzel, November 4, 2013).

Another major social plan is the Plano Brasil sem Miséria (PBSM -Brazil without Extreme Poverty) came into effect during the Rousseff administration in 2011 and it targeted more than 15 million extremely poor citizens whose income is less than R$70 per month (Burton, 2013, p.208). The PBSM had mainly three objectives: "(1) to raise the per capita household income of the target population; (2) to expand access to public goods and services; and (2) to provide access to job and income opportunities through productive inclusion initiatives" (Paes-Sousa, August 2013). The PBSM is a hybrid social plan that includes multiple social programs such as Bolsa Familia, Agua para Todos (Water for Everyone), Luz para Todos (Lights for Everyone), Bolsa Verde (Green Grant), Saúde da Família (Family Health) and Mais Educação (More Education) (Burton, 2013, p.208; also Paes-Sousa, August 2013). The PBSM is operationalized through the joint effort of 21 ministries and has a robust institutional structure. The governance of PBSM includes three administrative bodies: the PBSM National Management Committee; the PBSM Executive Board and the Inter-ministerial Monitoring Team. The National Management Committee involves the Minister of Finance, the Head of the Presidential Chief of Staff, the Minister of Planning, and the Minister of Social Development. The Executive Board consists of the deputy ministers of 21 ministries. The Inter-ministerial Monitoring Team comprises representatives of 21 ministries. Despite the high institutional governance, the administrative bodies are criticized due to its bureaucratic inflexibility (Paes-Sousa and Vaitsman, 2014, p.4358). From 2011 to 2014, the PBSM had visible impacts on extremely poor families; among these: "1.2 million enrollments in vocational training courses for lower income citizens (under the Pronatec subprogram); 3.2 million microcredit operations under the Crescer ("Grow") program; 600,000 cisterns installed to provide universal access to water in the semiarid region, under the Água para Todos ("Water for All") program; and 580,000 children from Bolsa Família beneficiary families enrolled in public day care centers, under the Brasil Carinhoso ("Affectionate Brazil") program" ("Brazil lifts 36 million," 23 June 2014).

6. The Decline of Neo-Developmentalism in Brazil

The ruling period under the then-president Lula da Silva can be viewed as the 10-year economic boom in which commodity prices soared, economic and social reforms were implemented at a high pace and successive electoral victories consolidated the credibility of the Workers' Party (PT). In this boom period, the optimistic financial conditions enabled the elites of the PT to adopt an autonomous national development strategy that differs from the orthodox market path of International Monetary Fund (IMF) and the World Bank. Although the PT government carried out monetary and fiscal austerity programs during their first ruling term, their neo-developmental strategy never changed. The economic growth strategy was boosted by the profitability and global expansion of the export-driven national industries. There was also an inclusive aspect of the national growth strategy which is based on the principle that the economic growth can only be sustained through income equality. The budget surplus which was generated by the fiscal austerity and rising commodity prices allowed the government to implement large-scale redistributive policies during the ten-year boom cycle. As a commodity-abundant economy, Brazil has considerably benefitted from the rising oil/non-oil commodity prices and the surging prices helped the viability of the national development program.

After a certain point, the lucrative commodity-dependent export policy began to surpass the manufactory-led export policy. The global demand for commodity goods was on the rise and it was more profitable for the PT government to focus on commodity exports. However, the limits of the commodity-led growth strategy remained obscure during the commodity boom. As the commodity prices continuously increased, market optimism among the PT officials improved further. As a result, the political elites of the PT started to loosen fiscal and monetary measures and tended to neglect long-term structural reforms which signify innovation-driven industrial policies and substantial education policies. As an emerging economy, Brazil has a more limited technological capacity and human capital in comparison to developed economies. In order to improve innovative capacity and human capital of a country, there is a need for long-term plans and dedicated politicians. That is a difficult task for countries where populist governments tend to make mostly short term plans due to recurring electoral campaigns. Although, the PT administrations had a chance to hold political power for an extensive period of time, they failed to implement long-term structural policies. Considering the limited efforts to develop human capital and innovative industries, Brazil became more vulnerable to external dynamics. From the 2012 onward, stagnation of the Chinese economy and the fall of commodity prices hit the Brazilian economy. At this stage, the interplay of proximate and structural factors set the stage for the decline of Brazilian neo-developmentalism.

Before examining the interplay of underlying factors, there is a need to clarify the notion of decline. According to the main hypothesis of this research, the Brazilian economy under the PT government fell into a deep-seated crisis which causes the downfall of the PT government. The political crisis has incapacitated the PT government in such a way that urgent countermeasures could not be taken to overcome one of the worst recessions of Brazil. While the corruption scandals melted the market capitalization of top Brazilian companies, the economy contracted by 3.8 percent in 2015 and the government debt to GDP ratio climbed to 67.5 percent in 2015 (The World

Bank Database). Besides, the mismanagement of the macroeconomic tools and serious corruption allegations led the collapse of the presidential coalition in the Congress. After the presidential coalition was dissolved, the government party became unable to have the majority in the Congress. As a result, legislative proposals of the PT failed to pass. Moreover, the fall of the legislative alliance with the opposition set the stage for the impeachment process of then-president Dilma Rousseff. After the then-president Dilma Rousseff was impeached by the Congress, uncertainties regarding the future of the PT increased. Furthermore, for an almost fifteen years, the ruling PT did not manage to transform the Brazilian economy into a high-technological and innovative one. Developmental programs regarding the science, technology and education could not be truly fulfilled and the triangular relation between university, industry and business remained weak. The locomotive of the economy became low value-added commodity sectors rather than high or medium-value added manufacturing sectors. When all the above-mentioned factors added up, it triggered the demise of the political power of the then-ruling PT and failure of its economic programs.

6.0. The Interplay of Domestic and External Factors

Although the initial years of the Workers' Party seemed to promise high growth rates with social inclusion and integration of the economy with cutting-edge technology and innovative capacity; it did not happen as planned. Due to a set of domestic and external factors, Brazilian economy started to stagnate from the 2014 onward and eventually fell into the worst recession that it experienced within 20 years. According to my hypothesis, the decline of the Brazilian neo-developmental model can be predicated on a number of domestic and external factors. Accordingly, domestic factors can be named as the outbreak of corruption scandals and vulnerabilities generated by deep-seated structural deficiencies. On the other side, external factors involve the emergence of global commodity price shock and the growth slowdown of China.

As a first domestic factor, corruption scandals created significantly detrimental effects on Brazil. After the major corruption scandals broke out, several top-level politicians, legislators and businessmen were convicted of bribery and bid rigging. As a result, several incumbent ministers were forced to resign and then-presidents Lula da Silva and Dilma Rousseff became subject to serious accusations of corruption. Moreover, detainment of politicians and the impeachment of Dilma Rousseff increased political uncertainty and disrupted operational capability of the Workers' Party. On the other hand, criminal conviction of senior executives of Petrobras and Odebrecht generated serious economic costs for Brazil. All in all, neo-developmentalist strategy of the Workers' Party had a sharp setback. From a VoC perspective, Brazil's business-state relations corresponded to the features of state-permeated market economy (SME) which are based on informal personal relations, patronage and family networks. In such a system, private domestic firms heavily depend on the government and public banks in order to receive financial support and to avoid legal barriers. Therefore, the problematical nature of state-business relations can be considered as an important factor for the abuse of political power and emergence of corruption schemes.

When it comes to the second domestic factor, structural deficiencies such as the poor quality of education and insufficient R&D activities had major impacts on the decline of the Brazilian neo-developmentalism. Prior to the ruling term of the Workers'

Party, several factors such as the military intervention, macroeconomic crises and foreign indebtedness accounted for chronic growth slowdown and the underdevelopment of technology-intensive industries. However, from the year onward that the Workers' Party (PT) came into power, there were favorable economic and political conditions to transform national economy by improving technological capacity, human capital and high value-added manufacturing. Low quality of human capital and low R&D investments can be seen as deep-seated challenges that undermined the development strategy of Brazil. Over the years, PT administrations increased investments in R&D and education; however an increase in expenditure was not converted into an increase in quality of human capital and innovative capacity. Except the Brazilian aeronautics company Embraer and state-owned oil company Petrobras, majority of Brazilian companies remained largely reliant on oil/non-oil commodity sectors and low and medium value-added manufacturing sectors. As a result, Brazil excessively depended on the export revenues of commodities which seemed to be a correct strategy until the commodity price boom ended. As the then-ruling administrations of Lula and Rousseff did not manage to make a high-technological and innovative breakthrough, and failed to diversify goods exported, the Brazilian economy remained vulnerable to external crisis and price volatilities. Therefore, when external financial conditions began to deteriorate, the commodity-dependent Brazilian economy was also seriously affected.

Given the above-mentioned domestic weaknesses, Brazilian economy remained unprotected against external risks. When external conditions start to turn against Brazil, it appeared that Brazilian economy was likely to encounter a severe crisis. After commodity prices went downwards and Chinese economy started to stagnate, the neo-developmentalist Brazil began to fall into a severe recession. Considering the profound trade relations between China and Brazil, stagnation of Chinese economy caused a decrease in sales volume of Brazilian commodities and triggered the downward move of global commodity prices. For a commodity-dependent economy like Brazil, it is hard to recover from such an intense commodity shock.

According to our hypothesis, the above-mentioned domestic and external factors might account for the decline of neo-developmentalism in Brazil. In this respect, these root causes are interacted with each other. Proximate and structural domestic factors created political backlash against the Workers' Party and undermined economic resilience of Brazil. The outbreak of corruption scandals and following legal investigations against the leaders of PT incapacitated the then-ruling government to make counter-cyclical policies on time. Moreover, long-standing commodity-dependent export policy and limited diversification of export items increased the likelihood of recession which will be driven by commodity price volatility. For this reason, it is possible to suggest that the recent economic recession of Brazil was aggravated via supporting domestic factors. For instance, the negative impacts of the 2008 financial crisis were more limited in Brazil compared to recent recession; because prior to 2008 depression, Brazil has enjoyed fiscal surpluses driven by commodity boom and had more political leverage to implement wide range of economic reforms. On the other hand, if there was not economic recession which is largely derived from global stagnation, it could be possible that the ruling PT might have continued to mask structural economic weaknesses; however, there were still grand corruption scandals that the PT leaders had to deal with.

Before examining each underlying factor behind the decline of the neo-developmentalist PT, there is a need to clarify further the discrepancy between the official discourse on high-technological export policy and commodity-centered exports in practice. According to official discourse of neo-developmentalist PT, economic growth needs to be driven by export-oriented medium and high value-added manufacturing industries; so that the Brazilian economy ends up having more advantageous position vis-à-vis foreign competitors. Since most of the less developed and developing countries specialize in production and export of either raw materials or low value-added processed products, their technological advancement is hampered. Moreover, those kind of economies are likely to lag behind developed economies in term of manufacturing capacity due to over-reliance on primary and tertiary sectors. Contrary to the official discourse of the PT government, high and medium value-added export items were surpassed by commodity exports. During the first 10-year ruling term of the PT, the rising Brazilian commodity exports were prompted by the soaring commodity prices. Although the Brazilian economy seemed to be excessively dependent on commodity exports, the presence of certain technologically advanced sectors cannot be denied.

It would be a mistake to claim that the official PT discourse on export-driven industrialism totally failed; because certain Brazilian companies utilize high-technological means of production. In this respect, there is a technological dualism in Brazil in which a small number of innovation-oriented companies coexist with a large number of low technological commodity-dependent companies. On the one hand, there are highly innovative and technological companies such as Embraer and Petrobras; on the other hand, there are *grupos* and their subsidiaries that specialize in commodity and tertiary sectors. For instance, Brazilian aeronautics company Embraer is the world leader in regional civil jet manufacturing business and its market share is likely to grow due to its high-competitive business strategies. Also, the oil company Petrobras has a high-technological offshore oil extraction capacity which enabled them to discover large offshore oil reserves in 2006. These innovation-driven companies are equipped with cutting-edge technologies that enable them to compete in global markets. However, the majority of Brazilian companies are far from being technology-intensive and globally competitive. One possible explanation for the limited technological progress of Brazilian companies and deceleration of structural reforms might be the overreliance on commodity revenues in time of commodity boom. The commodity boom might have impeded the implementation of structural reforms as commodity exports were already profitable enough. As commodity prices rose, Brazilian currency appreciated and export competitiveness deteriorated.

6.1. Domestic factors

6.1.1. Outbreak of Corruption Schemes

Since the mid-2000s, Brazil has struggled with grand corruption scandals which involved dozens of outstanding political figures, legislators and businessmen. Federal prosecutors initiated large-scale investigations to unveil clandestine dirty relations between politicians and businessmen. It was revealed that the ruling Workers' Party (PT) bribed oppositional congressmen to receive their supports in the Congress. Moreover, top prosecutors found out that the ruling PT created slush funds to finance its political campaigns and provided public contracts to various Brazilian conglomerates in return for bribes. According to a report of Transparency International, main drivers of corruption in Brazil are political finance, excessive red tape, high degree of decentralization and weak oversight (Martini, 2014). The report illustrates that political parties in Brazil receive donations from private companies to finance election campaigns and if they are elected, they reward those private companies by offering them public contracts. In Brazil, fund-raising of political parties are restricted with an official limit on the basis of a gross income of those donators. In this respect, corporations can donate up to 10 percent of their gross income and individuals can give up to 2 percent. Furthermore, as the report underlines: “once elected, politicians also ask for kickbacks and the use of overpriced contracts for their personal enrichment and to create a slush fund for the next election campaign” (Martini, 2014, p.2-3). Regarding the emergence of corruption schemes, it is possible to address the favorable underlying conditions which are intrinsic to state-permeated market economies.

As a state-permeated market economy (SME), Brazil has some characteristics which increase the likelihood of corruption. As its name implies, the state apparatus has an overwhelming influence over market and society in SMEs. In this model, the proactive state supports and protects domestic capital in order to promote the national development. As Nölke, Brink, Claar, and May highlight (2014), SME is “coordinated by reciprocal mechanisms of loyalty and trust between members of (these) state–business coalitions, based on informal personal relations, family ties and shared social backgrounds” (p.6). In this model, corporate actors rely on informal mechanisms and personal relations to receive support from the state. The state, as a major player of the domestic market, provides subsidies and allocates cheap credits to large domestic companies through public banks such as Brazilian Development Bank (BNDES). However, those economies that heavily rely on informal state-business networks may be exposed to certain risks regarding transparency, accountability and fair competition. For example, state officials may favor certain businessmen on the basis of mutual interest and personal ties instead of efficiency and quality. In other words, cronyism may arise as a threat in SMEs. According to Armijo and Rhodes (2017), cronyism is identified with "business-government relations characterized by friendships among small groups of elites, lack of transparency, nepotism, and oligopoly" (p. 233). Likewise, Li and Wu (2010) point out China where transaction type of corruption, trust-based relations and economic growth coexist. They argue that transaction type of corruption involves "exchanges between private firms and government officials" (p.134). Li and Wu also refer to Chinese *guanxi* culture which denotes "informal social networks based on private relations among people" (p.138). For them, "it (*guanxi)* functions as a relation-based governance system that provides private means to facilitate and protect economic transactions" (p.138). According to their findings, there is a widespread transaction type of corruption in China which involves the corrupt exchanges between government officials and businessmen by means of high trust-based *guanxi* culture (Li and Wu, 2010, p.138). There are similar trust-based informal state-business networks in Brazil which facilitates transaction type of corruption.

Under the ruling terms of PT, there were two grand corruption scandals which had devastating impacts on the incumbent government and Brazilian economy. One was the *Mensalão* affair that is based on cash for policy scheme and the other was the Petrobras affair that exposes the secret mutual transactions between politicians and businessmen. In this respect, it is important to explore the impacts of corruption schemes on the decline of neo-developmentalist PT.

6.1.1.1. Mensalão Affair

Mensalão affair is the first major corruption scandal of the PT administration which broke out in 2005 (the Portuguese word denotes "big monthly stipend"). The scandal stemmed from allegations that the Workers' Party made a scheme to bribe oppositional congressmen to receive their legislative supports. The *Mensalão* affair can be categorized as cash for policy scheme which "subvert the policy process by offering personal rewards to legislators in return for their support of determined policy objectives" (Power and Taylor, 2011, p.7). The corruption affair became publicly known in 2005 after some politicians of allied parties disclosed the details of scheme to media outlets. At that time, the opposition leader of an allied party claimed in an interview that the Workers' Party paid many congressmen R$ 30,000 per month (USD$ 12,000) to buy their legislative votes in the Congress. According to his claim, the bribes were transferred through fake advertising companies as if the state-owned firms made advertising contracts with those companies ("What is Brazil's "mensalão"?," 18 November 2013). In addition, another congressman leaked a surveillance film of a bribe which is given to an official in the Postal Service (*Correios*) and that video footage was broadcasted live on television, generating public resentment (Power and Taylor, 2011, p.20). *Correios* corruption was a follow-up scandal which resulted from allegations that the allied party, PTB, received kickbacks and took control of *Correios*, the National Postal Service (Balán, 2014, p.76). The *Correios* case was also a part of the major *Mensalão* scandal. After the corruption scandal broke out and became publicly known, official investigations were initiated to uncover the corruption. Seven years later, in August 2012, twenty-five politicians and congressmen were convicted on trial and sentenced to prison. In November 2013, the Supreme Court issued an arrest warrant to arrest twelve of twenty-five convicted politicians. Among them, some notable politicians such as Jose Dirceu, Lula's Chief of Staff; Jose Genoino, the former Workers' Party president were arrested while the former chairman of state-owned *Banco do Brasil*, Henrique Pizzolato escaped to Italy ("Q&A: Brazil's 'big monthly' corruption," 2013; "Brazilian 'Mensalao' banker," 2014). The then-president of the Brazilian Supreme Court, Joaquim Barbosa issued a warrant for the high profile resigned politician, Jose Dirceu based on bribery, money-laundering, misuse of public funds and conspiracy ("Jailed at last; Political corruption in Brazil," 23 November 2013, p.39-40.). Despite arrestments of associates from his inner circle, Lula da Silva was not convicted of *Mensalão* case. Although, Lula initially blamed his closest advisors and described his feelings as "betrayed" ("Q&A: Brazil's 'big monthly' corruption," 2013); he also admitted that "the PT did not do anything different from what other parties had done before it and that Brazil's perverse political institutions were ultimately to blame" (Hunter and Power, 2007,p.11).

6.1.1.2. Petrobras Affair

Petrobras affair (*petrolao* or the "big oily") is deemed to be the largest corruption scandal in Brazil which shed light on the dirty clandestine relations between top-ranked politicians and businessmen. Beginning from the Operation Car Wash (*Lava Jato* in Portuguese) which is a large-scale criminal investigation launched in March 2014, dozens of politicians and businessmen became subject to imprisonment. The turning point was the detention of Paulo Roberto Costa, former head of Petrobras from 2004 to 2012, on charges of funneling bribe money into slush funds of ruling political parties (Cooper, 21 May 2017). According to the confession of P. R. Costa, ruling politicians and top executives of Petrobras including himself made inflated contracts with construction firms to create slush funds to finance political campaigns ("Corruption in Brazil, The big oily," 3 January 2015). Most importantly, the entire top executive staff of Petrobras at that time had been appointed by the ruling PT administration and Dilma Rousseff was a chairwoman of Petrobras between 2003 and 2010, during the period that the alleged corruption acts occurred (Ravillard, 2015, p.1). The prosecutors also expanded the scope of the Operation Car Wash by investigating major Brazilian construction companies which are "accused of having formed a cartel to drive up the prices of Petrobras infrastructure projects" and bribing senior executives of Petrobras (Martini, 2014, p.3). Among them, Odebrecht is the largest construction company which deemed to be "a key member of the cartel of construction companies that secretly inflated the cost of Comperj and other big projects (Cooper, 21 May 2017). Under the Operation Car Wash, the Brazilian prosecutors, particularly Deltan Dallagnol and Paulo Galvao, conducted a serious investigation to uncover the corruption scheme. The lead prosecutor of Operation Car Wash, Deltan Dallagnol stated in an interview that the Petrobras affair "is much bigger than the Watergate scandal and the amount of bribes paid go up to about two billion dollars" (Cooper, 21 May 2017). At the end of the investigation, several notable businessmen and politicians were arrested including Marcelo Odebrecht who is the former chief executive of the major construction company, Odebrecht (Fonseca, 8 March 2016). Among politicians, the PT's Treasurer, Joao Vaccari and former Brazilian Finance Minister Antonio Palocci were arrested after being charged with money laundering and bribery (Ravillard, 2015, p.1; "Petrobras scandal: Brazil" 26 September 2016).

6.1.1.3. Impacts of Corruption Schemes:

Grand corruption scandals which have erupted during the terms of PT administrations had serious effects upon the incumbent government and major Brazilian companies. Two main corruption schemes, namely *Mensalão* and Petrobras affairs, are discussed above in a detail. These corruption schemes were put into action during the first ten years of the Workers Party (2002 – 2012) which can be considered as the expansionary phase of Brazilian economy. *Mensalão* affair was unveiled in 2005; but it was not until the year of 2012 that corrupt politicians and businessmen were put on trial and sentenced to prison. Likewise, legal investigations were accelerated to expose the Petrobras affair as of 2014. It is not a coincidence that corruption schemes started to be fully investigated after the year of 2012. From that year onwards, Brazilian economy began to stumble due to the commodity price shock and global contraction of money supply. During the boom cycle of 2000s, widespread corruption has not affected economic growth negatively as it did in 2012. Besides, as long as economic growth and social spending rose, voters continued to support the Workers' Party. This explains the electoral success of Lula in 2006 general election despite the outbreak of the *Mensalão* scandal in 2005. In other words, the Lula government relied on popular support and economic growth to mask the negative effects of corruption on overall economy. However, when the expansionary phase came to an end, corruption allegations began to be questioned by the general public and opposition parties. The public discontent set the stage for further legal investigations against the corruption schemes. Subsequently, the incarceration of many high-level politicians, bureaucrats, and businessmen led concerns about the future of the Workers' Party. The outbreak of corruption schemes caused political backlash and economic instability.

Subsequent to grand corruption probes, the government coalition and the Congress were notably discredited. The anti-corruption stance of mass media raised the public awareness which sparked mass protests against the widespread corruption. During the Lula and Rousseff administrations, corruption allegations have brought several ministers to a resignation. Of those resigned ministers, four ministers were from the Lula's cabinets (2003-2010); and seven ministers were from the Rousseff's cabinets (2011-2013) (Balán, 2014, p.84). The former President Lula da Silva managed to evade the corruption probe during the *Mensalão* affair. However, in the middle of 2017, he was "sentenced to nine years and six months in prison after being found guilty on corruption and money-laundering charges" and pending for the appeal (Phillips, 12 July 2017). Moreover, the outbreak of Petrobras affair during the first Rousseff administration had a negative impact on Dilma Rousseff; but it was not sufficient to convict her of alleged corruption scheme. Instead, Rousseff's leading campaign strategist and organizer João Santana was arrested for allegedly receiving $7.5 million from private companies before the political campaigns of 2010 and 2014 (Smith and Valle, March 11, 2016, p.15-16). The then-president Rousseff was subject to major accusations as she was the chairwoman of Petrobras between 2003 and 2010, the period when alleged corruption took place. Towards the end of her second administration, President Rousseff was impeached by the Congress; not because of above-mentioned grand corruption scandals; but for "allowing creative accounting techniques involving loans from public banks to the treasury that artificially enhanced the budget surplus" (Gallas, 12 May 2016,). The first woman President of Brazil became the second impeached president throughout the post-coup democratic era of Brazil (Romero, 31 August 2016).

Graft probes that targeted high-ranked politicians and bureaucrats strengthened the rule of law and demonstrated that corruption and impunity will no longer coexist in

Brazil. For this reason, Transparency International awarded the Carwash Task Force of Brazil as the winner of the 2016 Anti-Corruption Award (Transparency International Secretariat, 3 December 2016). Nevertheless, resignation of ministers and arrest of notable political advisors and congressmen created a political backlash which escalated the political crisis. The collective involvement of active politicians in corruption schemes deteriorated the legitimacy of the government. From the year of 2013, the PT government began to struggle with the political backlash and legitimacy crisis that pose a threat to their 10-year long ruling. In 2013, mass demonstrations started in major urban cities against the mismanagement and corrupt practices of the ruling PT government. The initial protests were organized against the price increase in bus fares; but eventually it turned into an anti-corruption and anti-government form. Hundreds of thousands people who were discontented with the economic situation and top-down urban policies took to the streets to protest the government (Watts, 21 June 2013). After these incidents happened, 2014 general election was held and Rousseff won the re-election with only a narrow margin. Rousseff's popular vote percentage fell to 51.6 percent in 2014 from 56.1 percent in 2010 (Romero, 26 October 2014). However, the biggest setback of the PT government was the collapse of presidential coalition system after the 2014 national congress election. In 2014, the Workers' Party lost 18 seats in the Chamber of Deputies (88 seats in 2010) and 3 seats in the Senate (15 seats in 2010) (Bernardes, 21 May 2014); and this result reduced the bargaining power of the PT in the Congress. Furthermore, the congress leader of main opposition party PMDB, Eduardo Cunha, started to oppose Dilma Rousseff by targeting worsening economy and corruption allegations (Avritzer, 2017, p.353). According to the presidential system of Brazil, the ruling party is required to form a coalition with other parties to have the majority in the Congress (Bernades, 21 May 2014). Otherwise, it is nearly impossible to pass or amend laws in the Congress. When the second Rousseff Administration lost the coalition support in the Congress, almost all proposals of the ruling government was blocked by the opposition (Avritzer, 2017, p.353). It ended up a political deadlock that incapacitated the Rousseff administration to execute its reforms. Lastly, the political opposition in the Congress initiated the impeachment process against the then-president Rousseff and put an end to the PT government. The political backlash that derived from the outbreak of large scale corruption schemes hampered the medium term political and economic plans of PT government. Until the impeachment came into effect, the then-president Rousseff attempted to stabilize the economy which was in a deep crisis. Nevertheless, the political crisis was seriously heightened that the ruling PT government was unable to enact laws or execute counter-cyclical economic policies (Trinkunas, 21 April 2016). The outbreak of corruption schemes not only created a political backlash and legitimacy crisis; it also had negative economic outcomes at corporate level.

The involvement of the largest Brazilian conglomerates, particularly Petrobras and Odebrecht, in corruption schemes deteriorated corporate reputation of such conglomerates and had negative impacts on the overall performance of Brazilian economy. As a result of the corruption scandals, major Brazilian companies were forced to cancel their mega projects, cut their investments and lay off high number of workers. From the year of 2015, the national oil giant, Petrobras had a sharp financial decline due to the graft probe. Coupling with a slump in world oil prices, the investigation of the Operation Car Wash further deepened the financial loss of Petrobras. According to statistics, "in February 2016 Petrobras' market capitalization touched below $20 billion, less than one-tenth of its mid-2011 value" (Armijo and Rhodes, 2017, p.237). In addition, in February 2016, Standard & Poor's downgraded the foreign currency bond rating of

Petrobras to "B+" from "BB" after the fall in Brazil's sovereign rating and serious corruption allegations (Blount, 18 February 2016). State-run oil company had a record quarterly losses; R$ 36.9 billion loss in 4Q-2015 and R$ 16.5 billion loss in 3Q-2016 (“Holding,” 2017). In order to mitigate financial losses, the company dismissed more than 10,000 workers in 2016 (“Holding,” 2017; Cascione, 2 September 2016). According to statistics, Petrobras reduced its workforce by more than 30 percent since the end of 2013 and several construction and engineering firms had severe financial downfall due to the withdrawal of major Petrobras projects (Girgenti, 2016). One striking example is the construction of Comperj refinery in Rio de Janeiro. The facility had been planned to “transport and process natural gas from the pre-salt reserves in Brazil’s Santos Basin”, but its operations were cancelled before the construction was completed (West, 25 July 2016). According to a news outlet , “Petrobras virtually halted all work at Comperj in late 2014 as an expanding corruption scandal raised concern about overspending and bribery in refining projects and several contractors involved in the project went bankrupt” (Blount and Eisenhammer, 27 August 2015). The cancellation of the Comperj refinery, which was projected to be the biggest refinery of Brazil, costed Petrobras 14.3 billion dollars of loss (Reuters, 7 April 2015).

Petrobras was not the only national conglomerate which got involved in grand corruption schemes. The largest construction company of Latin America, Odebrecht was at the center of serious off-shore money laundering and bribery scheme which has spread to more than 11 countries (Angelico, 12 May 2017). Ángel Rondón, company’s representative in Dominican Republic, was convicted of transferring bribe money to foreign officials and Brazilian politicians by means of off-shore accounts in Antigua-based banks. Rondón was charged with funneling “Odebrecht’s money to officials who, in turn, awarded Odebrecht projects to win contracts to build highways, dams, and other projects" (Fieser, 12 June 2017). When the Panama Papers were leaked in 2015, the illegal money transactions of Odebrecht via Swiss Banks and other offshore havens were also released (Birkett and Fontecilla, 7 July 2017). The corruption scheme of Odebrecht transcends the national borders; the scheme spreads to several Latin American countries such as Argentina, Colombia, the Dominican Republic, Venezuela and Mexico. After Marcelo Odebrecht, the then-chief executive of the company, was arrested in 2015, the construction giant signed a plea deal "with US and Swiss authorities, in which it confessed to corruption and paid $2.6 billion (£2.1 billion) in fines" (Gallas, 7 March 2017). As a part of the plea deal, "the company has also agreed to pay Panama $59 million and Colombia $32 million in reparations for bribes" (Eisenhammer, 13 January 2017). The heavy debt burden and lawsuits imposed serious financial costs for the company. In 2017, Fitch Ratings also downgraded Odebrecht Energy and Construction to CC from B-, highlighting the deep-seated challenges. As a countermeasure, the company "has sold 5 billion reais ($1.6 billion) of the 12 billion reais in assets it put up for sale to ease a cash crunch in 2016, and reduced the size of its workforce by almost 60,000 people to 128,000 in the three years through 2015" (Dezem, 17 January 2017).

The outbreak of grand corruption schemes created a political crisis which brought an end to the Workers' Party era. After the prosecutors completed their investigations, judges convicted several leading political figures and businessmen of fraud and money laundering. When the corruption trials ended, the then-president Dilma Rousseff started to lose its popular support and became subject to accusations in the Congress regarding the corruption scandals. The impeachment of Rousseff was the turning point which ended the 14-year long ruling term of Workers' Party. On the economic side, the eruption of corruption schemes exacerbated the national economy which was already in a severe downturn. Major Brazilian companies suffered the consequences of corruption schemes. It costed those companies billions of dollars plus loss of corporate reputation, taking into account the termination of large-scale contracts, delay of grand infrastructure projects and gigantic fines. All of these negative outcomes partly accounted for the decline of neo-developmentalist government in Brazil.

6.1.2. Structural Deficiencies: Challenge of Education and R&D

In a rapidly changing global economy, innovation is of vital importance for both firms and national economies to boost the total factor productivity (TFP) and national income. For Crépon, Duguet, and Mairesse (1998), there is a significant positive correlation between a higher innovation output and firm productivity. According to the Oslo Manual (2005), innovation is defined as "the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations" (p.46). According to Kannebley, Sekkel, and Araujo (2008), "innovation positively affected manufacturing firm's performance, reflected in terms of increases in employment, net revenue, productivity, and oftentimes, market share, during the 2-year period following innovation" (p.351). Moreover, innovation-driven economies have higher competitive advantages in terms of production and marketing. In other words, those economies which invest in innovative activities are likely to enhance technical change and national income (OECD, 1996). In this respect, it is important to examine the driving forces behind innovation. There is a general consensus that research & development (R&D) and human capital accumulation are significant factors that generate innovation. According to the empirical research of González, Miles-Touya and Pazó (2016), "prior experience in R&D increases the probability of introducing a new product or process and second that, for some smaller firms, investing in workers' skills (via training programs) boosts product innovation even in absence of R&D" (p.695).

Research and development (R&D) is one of the leading factors that foster innovation, especially when it is reinforced by general education and vocational training (González et al., 2016, p.708). As the Frascati Manual indicates (2015), "R&D comprises creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications". In order to be competitive in global markets, it is a necessity to produce, process and commercialize new knowledge as well as acquiring and adapting existing global knowledge (The World Bank, 2010, p.148). According to Cohen and Levinthal (1989), "firms invest in R&D not only to pursue directly new process and product innovation, but also to develop and maintain their broader capabilities to assimilate and exploit externally available information (p.593)". In OECD countries, the main financer of R&D is the business sector (63%) and the rest of the funds comes from the government (30%) and researh institutes, universities and foundations (7%). However, in developing economies, the government would be the largest financier and performer of R&D due to the financial incapability of infant business sector (The World Bank, 2010, p.140-141).

Human capital accumulation is another prerequisite for innovation development. Apart from the production stage, having well-educated and well-trained workers is also essential to utilize new knowledge and technologies. According to González et al. (2016), “human capital is acquired through formal education (mostly general skills) and also through training and experience at the workplace (mostly, but not only, specific skills)” (p.694). In addition, the World Bank report (2010) reveals that: “Skills development, and training are key elements of a knowledge-based, innovation-driven economy and affect the supply of and demand for innovation. Human capital and skilled labor complement technological advances: new technologies cannot be adopted in production without sufficient workforce training and education” (p.166). In this respect, the quality of education and vocational training, and the engagement of qualified workforce in innovation-driven firms and organizations are of prime importance (OECD-Oslo Manual, 2005, p.43). However, compared to developed economies, there is a considerable shortage of human capital in developing countries (The World Bank, 2010, p.169). It is possibly due to insufficient infrastructure, education and lack of cooperation between institutions. According to the Triple Helix thesis which was introduced in the mid-1990s by Henry Etzkowitz and Loet Leydesdorff, the strong cooperation between university, industry and the government is crucial to lead innovation and economic development. In this respect, the production and commercialization of new knowledge is closely related to the division of labor between these three bodies. Smith and Leydesdorff (2014) give an example of patents; they suggest that triple coordination has a decisive impact on every stage of patenting: “(1) wealth generation on the market by industry; (2) legislative control by government; and (3) novelty production in academia” (p.323). There are also scholars who emphasize the dual relationship between university and business on the purpose of innovation. Mihaela-Cornelia Dan (2013) highlights the three aspects of these dual relationship: “the relation between science and economy, the inter-organizational relations between universities and enterprises, and the inter-personal relations between science people and professors and company employees” (p.67). Dan argues that the university is no more the sole producer and promoter of innovative knowledge; it is subject to a challenge by independent research institutes, firm-based research groups and government agencies (p.68). In such an environment where competition for knowledge-generation is higly intense, the university-business relationship becomes significant. According to Dan (2013), "the advantage of the university cooperation is brought by the speed-up of the innovation process, reduction of stages…From the financial point of view, the university cooperation brings a division of costs with research and development…and a diminishing of risk and uncertainty" (p.69). On the other hand, in most developing countries, universities tend to remain rather isolated from the business sectors and public-private research institutes and produce fewer patents compared to relatively high number of scientific publications (The World Bank, 2010, p.156).

Despite being the largest economy of Latin America and one of the leading developing economies of the world, Brazil is not considered as a knowledge-based and innovation-driven economy. Even the large-scale education and industrial policies of the Workers' Party (PT) did not succeed in transforming economy. Although Brazil managed to integrate some parts of its economy (such as aeronautics, natural resource and renewable energy) with innovation and high-technology, it lagged behind its competitors such as China. The failure to transit to innovation-driven economy partly account for the current recession of Brazilian economy. Overreliance on low and medium value-added commodity sectors and delay of structural reforms in education and business-university relationship made Brazilian economy more susceptible to commodity price shocks and liquidity crisis. In this respect, it will be shed light on the structural deficiencies of Brazilian economy with regards to innovation.

As it was discussed above, R&D is an essential factor for creating innovation. According to Kannebley et al. (2008), “Brazilian manufacturing firms suffer from limited technological investment, lack of larger investments in R&D and are extremely centered in the acquisition of embodied technology in machines and equipments” (p.340). Similar to most of developing countries, Brazil suffers from insufficient R&D in terms of both quality and quantity. According to the World Bank, though Brazil’s R&D expenditure (% of GDP) rose slightly to 1.16 percent in 2014 from 0.99 percent in 2003, it remains limited vis-à-vis its big trade partners, namely China and the United States. Interestingly, China has lower R&D expenditure (% of GDP) than Brazil in 2001 (0.93 percent); however, China’s R&D expenditure more than doubled in 2014, reaching to 2.02 percent. On the other hand, the R&D expenditures of United States (2.75%) and South Korea (4.27%) in 2014 surpassed Brazil by two to four times. Brazil is need of R&D investors other than the government (The World Bank Database). The government is the primary financier of the Brazilian R&D with 70 percent whose large part derived from ministries of defense, agriculture, industry, health and the environment (Rodriguez, Dahlman and Salmi, 2008, 130-131). This also confirms the data of the World Bank report (2010) which suggests that the most of developing economies relied on government expenditures regarding R&D. The most innovation-driven and high-technology Petrobras (oil drainage) and Embraer (aeronautics) were once fully state-owned enterprises and are still strongly supported by the government. Since the most of R&D activities in Brazil is conducted within the public universities by engineers and scientists, there is a lack of incentive to exploit R&D outputs for commercial purposes (The World Bank, 2010). There are limited R&D funds and these are not allocated to the promising and profitable sectors. Rodriguez, Dahlman and Salmi (2008) reveals that “there is very little systematic monitoring and evaluation of R&D undertaken by public research labs and universities" (p.131) and "even knowledge that is patented is often not exploited for productive purposes" (p.132). The proportion of R&D activities financed by private firms and research institutions is much lower than R&D proportion of public universities and labs. Despite the shortage of R&D investments of private firms, the majority of Brazilian companies do not tend to cooperate with universities for acquiring new knowledge. Some empirical researches reveal the fact that the number of interactions between industrial sectors and research institutes (including universities) is quite weak and the durability of interactions is temporary (Del-Vecchio, Britto and Oliveira, 2014; Albuquerque, Suzıgan, Cario, Fernandes, Shima, Britto, Barcelos and Rapini, 2008). Moreover, the empirical research of Albuquerque et al. (2008) which contains 2,768 firms and 19,470 research groups from all over Brazil, shows that most common interaction types between research institutions and firms are consultancy, short-term R&D collaborative projects, and training & courses. In order to innovate, there is a need for longstanding collaboration between business, university and research institutions; so that, new ideas and techniques can be created, evaluated and commercialized.

Human capital accumulation is another integral part of innovation process which is complementary to R&D. It is significant to have an educated and skilled workforce for both innovative and non-innovative firms. In this respect, the quality of primary-secondary-higher schools, universities and vocational institutions have to be compatible with global standards. As Gill and Kharas (2007) argued that to increase innovation, there must be "an educated labor force and quality academic institutions, the protection of intellectual property rights, and effective collaboration between research institutions and the private sector" (p.24). In the case of Brazilian education institutions, there is a need for structural reforms to comply with higher standards of advanced economies.

The scarcity of qualified schools and academic institutions hamper the development of innovation-driven economy.

An OECD research (2011) examines the ratio of students to teaching staff in Brazil to measure the efficiency of basic education in classroom. The results reveal that Brazilian public secondary education institutions have on average 21.6 students per teacher; and private secondary education institutions have on average 12.1 students per teacher. On the other hand, the OECD average numbers are 13.7 and 13 for public and private schools, respectively (OECD, 2011, p.404). The findings demonstrate that classrooms of Brazilian public schools are overcrowded.

Furthermore, the selection procedures of teachers in Brazil are not sophisticated and the academic qualities of teacher candidates are low. Empirical researches confirm that "in Brazil, teachers are recruited from the bottom third of students and teaching is a low-status profession that does not attract high academic performers" (Bruns, Evans, and Luque, 2011, p.57). Compared to countries that have developed education systems such as Finland and Singapore, the recruitment procedures of teachers in Brazil remain superficial and less selective. Researchers show that:

> "The highest performing education systems globally always have highly selective teacher recruitment processes, in which the number of places in teacher training programs is limited and there is competition for entry. Singapore accepts only 20 of every 100 teacher education applicants. Finland reports nine applicants for each new opening....Teacher selection in Brazil begins after teachers have graduated. The process is highly decentralized; individual states and municipalities set their own criteria and hiring processes. At the state level and in many municipalities, hiring is based on a written

> examination and a review of formal qualifications, and candidates are ranked. There are typically no interviews or on-task evaluations, such as preparation of a sample lesson plan or teaching a sample class" (Bruns, et al., 2011, p.58).

Furthermore, in 2009-10, Minas Gerais, Pernambuco and Rio de Janeiro municipality, a group of expert observers conducted systematic classroom observations by applying standardized OECD procedures. The main purpose of the observers was to obtain reliable classroom-level findings regarding the in-class performance of teachers and latest educational trends. The final results of the research highlighted three negative trends in classrooms. First, researchers found that a high share of classroom time is lost. According to that, there is a common norm for teachers in OECD countries to spend "at least 85 percent of class time on instruction, no more than 15 percent on classroom administration (taking attendance, collective homework); and no time on nonacademic activities (chatting with students, leaving the classroom)" (Bruns, et al., 2011, p.68). By contrast, in Brazilian classrooms, instruction time is below 66 percent; time spent for classroom administration is around 25-30 percent; non-academic activities take 7 to 12 percent of class time; and teachers are out of classroom for 3 to 8 percent of time, either arriving late or finishing early (Bruns, et al., 2011, p.68). Secondly, traditional teaching methods dominate during the classes. Accordingly, "books are used less than 20 percent of the time; the blackboard is the principal teaching method used 25 percent to 34 percent of the time; and between 8 percent and 21 percent of the time no materials are used" (Bruns, et al., 2011, p.69). Thirdly, students are not engaged in the class. Observers explain that "between 43 percent and 64 percent of the time, a small or large group of students – six or more – is visibly off-task (chatting, texting, sleeping). The OECD benchmark is 6 percent or less" (Bruns, et al., 2011, p.69).

In addition to in-class researches, there is another trusted method to test the skills and knowledge of 15-year-old students. This test is known as the Programme for International Student Assessment (PISA). According to the 2015 PISA results, "the average performance of students in Brazil is significantly below the OECD average in science (401 points, compared to the average of 493 points), reading (407 points, compared to the average of 493 points) and mathematics (377 points, compared to the average of 490 points)" (OECD, 2016, 1-13). Since the year of 2006, Brazil's average performance in science is stable. The statistics demonstrates that Brazil's education expenditures per student are still low; "the cumulative expenditure per student between the ages of 6 and 15 in Brazil (USD 38,190) corresponds to 42% of the average spending per student across OECD countries (USD 90,294)" (OECD, 2016, 1-13). Despite the spending on education in Brazil grew steadily from the 2012 on, there is a challenge to convert such expenditure into positive results. By contrast, other similar countries such as Colombia, Mexico and Uruguay which spend lower than Brazil on education perform better in science (OECD, 2016). According to the findings of the OECD research, possible factors that lower the science scores of Brazilian students are: "(1) Low opportunity to learn science at school; in Brazil, 8% of students are not required to attend any science lessons; (2) ineffective resource allocation; in Brazil, principals of disadvantaged schools are more concerned about the material resources in their school than principals of advantaged schools; and (3) wrong teaching strategies; in Brazil, less than one in two students reported that their teachers explain scientific ideas in many or all lessons and only 44% of students say that their teachers adapt most or every lesson to the class's needs and knowledge" (OECD, 2016, 1-13).

The quality of university education is another challenging issue of Brazil. Although Brazil has six elite universities which ranked within the top 500 universities of the world, they suffer from certain deficiencies. Language barriers and internationalization challenges have deteriorating effects on the quality of universities. Those universities that attempt to hire from abroad cannot easily find academicians who know Portuguese. Considering the fewer courses are held in English, it becomes difficult for Brazilian universities to recruit foreign academicians (Downie, 2010; Knobel, 2011). Internationalization is another challenge for Brazilian universities. The exchange of international students and academic staff is quite rare in Brazil. Few Brazilian students decide to go abroad for education purposes. This, in return, hampers the technological absorption and acquisition of new knowledge (Rodriguez et al., 2008, p.135). On the other hand, Brazil is not a favorite place for international students or academics due to high red tape and language barriers. For international students and academicians, there are complex and time-consuming bureaucratic procedures such as getting visa, opening bank account, renting an apartment and registering at school (Downie, 2010; Knobel, 2011). In an interview, Matias Spektor, one of the top executives of Getulio Vargas Foundation, states that "established professors who have tenure and a solid academic reputation do not want to work in Brazil, because they think it is an academic wasteland…and for an academic that is competitive internationally, young, and ambitious, coming to Brazil is death unless you are studying Brazilian music or tropical diseases or something distinctively Brazilian" (Downie, 2010).

Despite the considerable increase in primary school attainment and expanding education funds, there is a still weak coordination between schools, universities, research institutions and business enterprises. The broken link between these institutions forestalls the innovation-driven technological breakthrough of Brazil to become a competitive high-income economy like East Asian economies. According to the Global Innovation Index, in 2015 Brazil ranked 84th within total 123 countries (score

37.43/100) regarding the university/industry research collaboration; and ranked 67th out of 108 countries with 21.63 percent employment in knowledge-intensive services within total Brazilian workforce (Cornell University, INSEAD, WIPO, 2017). The number of patents granted yearly indicates the absorption of knowledge and progress of innovations in a country. The total number of patents granted was 180 in 2003 and it only increased to 381 in 2015. By contrast, Brazil was outnumbered by East Asian economies regarding to the number of yearly patents granted. In 2015, Japan, South Korea, and Taiwan had respectively 54422, 20201 and 12575 patents (U.S. Patent and Trademark Office, 2015). Underinvestment in human capital and R&D is a significant obstacle that impedes innovation and economic productivity.

Due to low quality education system, insufficient human capital accumulation, shortage of R&D and weak university-business cooperation, Brazil's high-technology, innovation-driven exports remained limited. According to the statistics, the percentage of high-tech net exports of Brazil in 2015 within the total trade is only 4.06 (Cornell University et al., 2017). According to Canuto, Cavallari and Reis (2013) "there is a clear reduction in the share of high-technology products in recent years. At the same time, primary and resources-based products gained significant importance between 2000 and 2010" (p.11). The high-tech export items are only restricted to the aeronautics and automotive sectors. Even though, the Brazilian aviation company, *Embraer* leads to private and business jet market in the world; and, the national energy company, *Petrobras* is one of the world leaders at deep under-water drilling technology; these are not sufficient to transform Brazilian economy. Apart from these innovation-driven companies, Brazil could not overcome the over-reliance on commodity exports.

In this respect, “the growth of primary exports has far surpassed that for manufactures, leading to a marked rise of the share of the former within total values, from 47.4% in 2002 to 63.6% in 2010” (Ebenau and Liberatore, 2013, p.114). The top four exported products of Brazil in 2015 are respectively soya beans (US$ 20.9 bn.), petroleum oils (US$ 11.7 bn.), iron ores (US$ 10.3 bn.), and raw cane sugar (US$ 5.9 bn) (World Integrated Trade Solution, n.d.). The data clearly displays the inability of Brazil to increase “exports of higher-skill and higher technology products, such as computers, office products, and communication equipment” (Gill and Kharas, 2007, p.19). The failure to transform Brazilian economy into high-income economy was a result of decades-long economic instability and ineffective educational and industrial policies up until 2003. In the early 1980s, Brazil and South Korea were equal to each other in terms of national income; towards the 1990s, South Korea made a breakthrough in high-tech production and started to surpass Brazil. Despite the era of the Workers’ Party has begun with a high enthusiasm and expectations; the economic transformation remained incomplete. Inability to avoid the dependence on non-innovative commodity exports increased the external vulnerability of Brazil against global commodity shocks and liquidity crises. In order to avoid commodity price shocks and foreign-exchange bottleneck, Brazilian economy has to be integrated with innovation-driven and knowledge-based fields. According to Rodriguez et al. (2008), innovative firms that do R&D are more likely to be competitive, and hence more likely to export. But involvement in export means that firms have to be more innovative because keeping up with foreign competitors means keeping up with their advances” (p.133).

6.2. External Factors

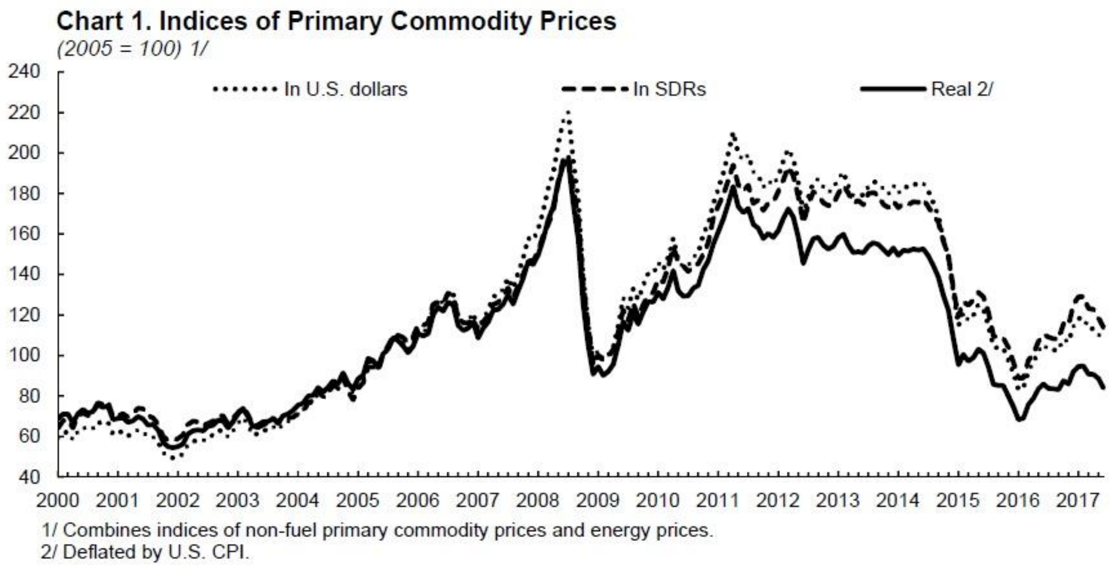
Since the year of 2014, Brazil suffers a historic recession that its economy contracted by 3.8 percent in 2015. Brazil has not gone through this sort of deep recession ever since 1990; not even during the Great Recession of 2008 ("GDP growth," n.d.). The global slump in commodity prices hit the Brazilian economy due to the Brazil's over-reliance on the commodity exports. The limited high value-added export products within the total export items and dependence on commodity exports made the Brazilian economy more vulnerable to the instabilities in global commodity prices. UNDP puts an emphasis on such vulnerability: "from the perspective of developing countries, especially those whose principal means of foreign exchange earnings come from the exports of primary commodities; unstable commodity prices create macro-economic instabilities and complicate macroeconomic management. The more commodity-dependent an economy—that is, the higher the share of primary goods in a country's exports—the more likely it is to be vulnerable to commodity price shocks" (United Nations Development Programme, 2011, p.58).

The short and medium term upward trends in commodity prices (as it happened during the period between 2003 and 2008) do not mean that commodity-exporting economies will be better off in the long term; because there is a downward price tendency of non-oil commodities in the long-term that gradually melts the revenues of producers. In return, those commodity-exporters produce larger volumes of non-oil commodities to compensate their loss which further reduces the commodity prices (United Nations Development Programme, 2011, p.59). Therefore, those commodity-dependent countries need to diversify their export items and integrate high value-added final products with the economies of scale to end the vicious cycle of commodity shocks.

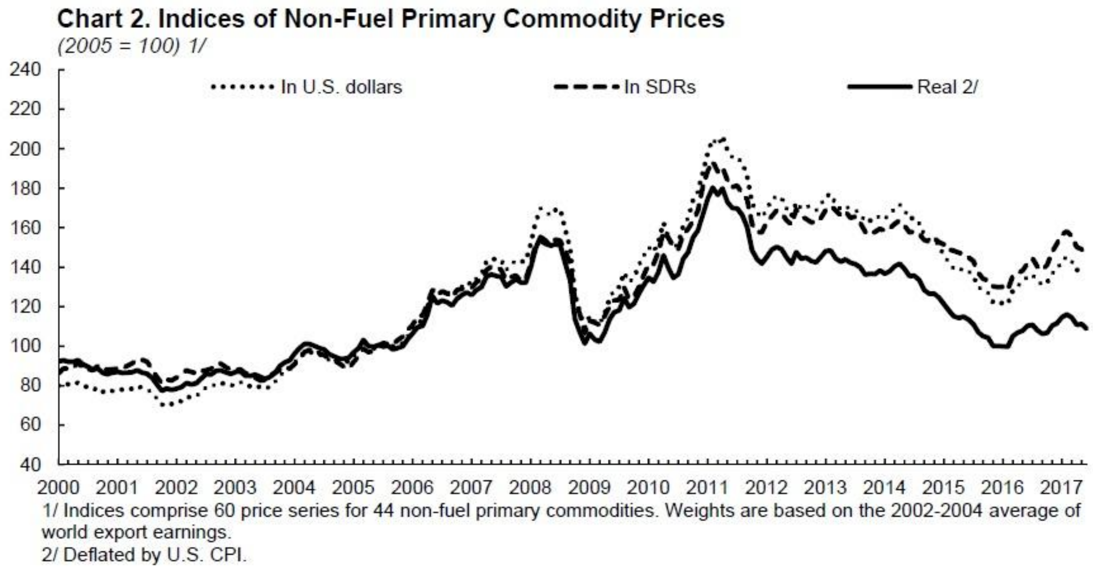
UNCTAD underlines the significance of industrial transformations to avoid the commodity-based recessions: "diversification and industrialization remain the best means in the long run for countries to reduce their vulnerability to the adverse growth effects of commodity price volatility and unfavourable price trends. Diversification and industrialization are complex processes achieved over a long period of time, as they require a stable macroeconomic policy environment that supports capital formation and skill acquisition, where macroeconomic policy support itself depends heavily on stable earnings from primary commodity exports" (United Nations Conference on Trade and Development, 30 April 2012, p.43). During a cross-section research, ten most common export commodities of Latin America were analyzed on a country-by-country basis for the period between 1995 and 2005, and results show that "their export composition has not changed over time. Rather, most of these economies have intensified their commodity export specialization" (Caldentey and Vernengo, 2010, p.633). Also, Bichara, Silva, Cunha, and Lélis reveal that "since the early eighties, Brazil has experienced a regressive pattern of specialization, where productive and trade structures have become increasingly dependent on the natural resources intensive sectors, such as minerals, fuels and agricultural products" (p.40).

In 2006, Brazil gained its energy independence and became an oil exporter country after the exploration of large off-shore oil reserves named as Pre-Salt Layer. Even though, this exploration was the direct result of the high-technology extraction process executed by the national oil conglomerate, Petrobras, the vast amount of oil reserves made the Brazilian economy over-relied on the oil export. Besides, non-oil commodities, foods and minerals, compose the large proportion of Brazilian exports. The PT administrations took the advantage of the upward trend of global commodity prices for a decade long. In this respect, "supported by positive terms of trade effects, Brazil's annual GDP growth rate averaged 3.1% over this period. Since the fall in commodity prices in 2011, these terms of trade effects have reversed…(and) GDP growth has been consistently lower than predicted, while structural weaknesses underlying the economy have resurfaced" (ECB Economic Bulletin, , 2016). The sharp decline in both oil and non-oil commodity prices aggravated economic stagnation of Brazil. Due to the stagnation and price slump in commodity market, Brazil's public debt has soared. Brazil's public debt-to-GDP ratio sharply increased from 57.2% in 2013 to 67.4% in 2015 ("Central government debt," n.d.). According to Paul Temperton, Brazil suffers from "three types of recession at once". Accordingly, Brazilian Central Bank increased the policy interest rates excessively to curb rising inflation rate; however, it created a stagflation rather than just controlling high inflation. Secondly, after the Great Recession, the rising household and public debt in Brazil were coupled with the high interest rates, and in return national debt was multiplied. Thirdly, following to global price slump of commodities, Brazil's trade revenues sharply decreased (Temperton, 15 March 2016). In addition to the sharp fall in commodity prices, the stagnation of Chinese economy is another negative factor that accounts for the economic downturn of Brazil. Since China is the biggest trade partner of Brazil, a growth slowdown in Chinese economy signals an economic contraction in Brazil.

There is a strong economic partnership between Brazil and China which is mostly based on trade of commodities such as oil, soybeans and iron ore. In 2013, Brazil's 74% of total soybean exports, 48% of total iron exports and 31% of total crude petroleum exports headed for China. These three commodities constitute 80.7% of total Chinese imports from Brazil in 2013 (The Observatory of Economic Complexity, n.d.). As a rapidly urbanizing and developing economy, China needs to import large amount of commodities to manufacture value-added products and to meet rising consumption needs in Chinese domestic market. According to the President of the Central Bank of Brazil, Ilan Goldfajn, “domestic consumption of soybeans in China jumped by 116%, while steel production rose by 298% between 2000 and 2008. The stimuli to global demand pushed up international commodity prices, which climbed by 227% in the period” (Goldfajn, 21 Jan 2015). However, after China fell into an economic slowdown, Brazil’s severe recession was triggered. According to Peter Kingstone, “as Chinese growth rates have begun to slow and global commodity prices start to fall globally, so have the volume and value of Brazilian exports to China. Depending on how severe China’s slowdown is, Brazil’s overemphasis on commodities could prove dangerous not just to the country’s short-term fiscal health, but also to its long-term prospects for economic stability and development” (Kingstone, 2012). The tables below also demonstrate the downward trend of commodity prices and Brazilian exports to China after 2011. It is a fact that the Brazilian neo-developmentalism fell into a deep crisis. Commodity price shock and diminishing returns of exports hit the PT government and accelerated the decline of the neo-developmentalist PT.



Source: International Monetary Fund, Indices of Primary Commodity Prices, Index charts, 2000-2017



Source: International Monetary Fund, Market Prices for Non-Fuel Commodities, Index charts, 2000-2017

TABLE 4- Total Brazilian Exports to all countries and China (billion US dollars)

Year	Total National Exports	Exports to China
2011	261	44.5
2012	248	41.5
2013	247	46.1
2014	228	40.9
2015	196	35.9

Source: The Observatory of Economic Complexity, atlas.media.mit.edu

TABLE 5 - Actual Market Prices for Non-Fuel and Fuel Commodities, 2014-2017

Commodities	Units	2014	2015	2016	2016Q3	2016Q4	2017Q1	2017Q2
Soybeans	$/MT	457.8	347.4	362.7	372.2	367.3	375.5	345.9
Spot Crude Oil 2	$/bbl	96.2	50.8	42.8	44.7	49.1	53.0	49.4
Iron Ore	$/MT	97.4	56.1	58.6	58.6	70.8	85.6	63.3

Source: International Monetary Fund, Market Prices for Non-Fuel and Fuel Commodities, 2014-2017

7. Regional Perspectives: The Decline of the Pink Tide?

Since the outset of the 21th Century, a variety of leftist type of political parties seized the ruling positions in majority of Latin American countries. There were hardline leftist, institutional center-left and populist type of governments in Latin America that created an anti-neoliberal alliance. Because this leftist alliance included multiple types of leftist movements and parties, it was entitled the Pink Tide. For Weyland, Madrid and Hunter (2010), contemporary Latin American parties and governments can be divided into two main categories: Contestatory pole and moderate pole. On the contestatory pole, there is the United Socialist Party of Venezuela which was founded by Hugo Chavez and currently led by Nicolas Maduro. With its nationalist, statist and heterodox policy orientation, Chavismo became an inspirational model for Bolivia's Morales and Ecuador's Correa. On the opposite pole, the Chilean Concertacion and Brazilian Workers' Party constitute the moderate leftist model which has robust institutional and organizational roots (Weyland, Madrid and Hunter, 2010). However, according to Levitsky and Roberts (2011), two-sided dichotomies (such as contestatory versus moderate) do not reflect the true portrait of Latin American left. For this reason, they created a typology with regards to intra-party structure and institutional rootedness (below shown in the table). In terms of intra-party structure, they divide it into "dispersed" and "concentrated" authority. These categories represent the way of governance that parties adopted. In other words, it describes whether the power is shared among a party cadres and constituencies or held by only a charismatic single leader. Secondly, institutional rootedness displays how deep a party is established in terms of a durability of political tradition and a scale of social networks. A party might have a prolonged history of electoral and political struggle or it might be a new political movement. According to these typologies, authors classify Latin American countries as such: PSCh in Chile and PT in Brazil are institutionalized partisan left that has dispersed authority and an established party organization; MAS in Bolivia is a movement left that has dispersed authority and a new political movement structure; Peronism under Kirchner is a populist machine that has concentrated authority and an established party organization; Chavez in Venezuela and Correa in Ecuador are considered as populist left that has concentrated authority and a fresh political structure. Chile's PSCh and Brazil's PT became more professionalized and preferred mass electoral popularity to popular grassroots movements. On the other hand, Peronist Kirchner government became institutionalized through patronage linkages and they have "a personalistic leadership patterns and pragmatic policy orientations" (p.14). However, Chavez in Venezuela and Correa in Ecuador represent less organized, more top-down and authoritarian style of parties. Bolivia's MAS under Evo Morales, on the other hand, is a bottom-up social movement which consists of autonomous social mobilization outside the electoral arena (Levitsky and Roberts, 2011, p.7-16).

TABLE 6: A Typology of Governing Left Parties in Latin America

	Established Party Organization	**New Political Movement**
Dispersed Athority	**Institutionalized partisan Left** Electoral-professional Left (PSCh in Chile; PT in Brazil) Mass-organic Left (Broad Front in Uruguay)	**Movement Left** (MAS in Bolivia)
Concentrated Authority	**Populist machine** (Peronism under Kirchner; FSLN in Nicaragua)	**Populist Left** (Chávez in Venezuela; Correa in Ecuador)

Source: Levitsky and Roberts (2011)

The turn to the left in Latin America was a reflection of general discontent with the former neoliberal regimes that implemented large-scale privatizations and austerity programs under the so-called Washington Consensus. The former neoliberal governments were identified with the impoverishment and financial crises of the 1990s. This, in return paved the way for the rise of leftist leaders and parties in the region. Leftist leaders were seen as new alternatives by contrast with the motto of neoliberalism, TINA (There is no alternative). In general, those leftist governments performed well and made remarkable social improvements in their own countries. Leftist governments also took advantage of the commodity price boom during the first decade of the century and this indeed helped them to increase public revenues. Until the year of 2014, leftist governments benefited from favorable global liquidity and accelerated the social spending to mitigate social injustice and gain popular support.

However, since then, many leftist governments in Latin America fell into political and economic decline. The cyclical economic downturn and other domestic challenges hit the leftist and populist leaders. According to the former Mexican foreign minister, Jorge G. Castañeda, it was the failure of the Pink Tide and the death of the Latin American left. For him, Latin American leftist leaders lavishly spent the commodity revenues during the commodity boom and could not avoid the endemic corruption. Castañeda states that "the causes of corruption across the region — a lack of accountability, a culture of lawlessness, weak institutions and civil society — can affect politicians of the right and left alike" (2016). In addition, the over-reliance on commodities and inability to export high-tech products posed a financial risk to many Latin American countries. Daniela Blei (2016) puts an emphasis on the excessive reliance on commodity exports:

> "Once commodity prices fell and China's economy cooled, the region found itself with little to sell on global markets. Venezuela produces virtually nothing but oil, iron, and aluminum, relying on raw materials for 98 percent of total exports. In Ecuador, commodities and agricultural goods account for 86 percent of exports, the bulk of which are oil, bananas, and flowers. In Bolivia, 72 percent of exports are oil, copper, and zinc. In Argentina, nearly 70 percent of export income is derived from commodities, mostly soybeans".

Moreover, according to Caldentey and Vernengo (2010), those Latin American countries which excessively export oil and gas commodities are more susceptible to commodity shocks and cyclical recessions. In this regard, many countries in Latin America heavily depend on exports of energy resources. They demonstrate that "in the case of Venezuela, a country mainly specialized in petroleum products, petroleum products and natural gas exports account for more than 90 percent of the leading export products. For Ecuador, petroleum products account for half of its main exports. In the cases of Bolivia, Colombia, and Argentina, petroleum products and natural gas exports represent roughly between 30 percent and 40 percent of all leading export products" (Caldentey and Vernengo, 2010, p.633). Countries that export high amount of oil and non-oil commodities are likely to encounter two challenges. First, if the commodity prices increase, commodity-exporting countries would experience overvaluation of currency which can diminish their export competitiveness. In extreme cases, it turns into the Dutch disease, in other words, a chronic overvaluation of national currency. Second, if commodity prices go downwards, then, commodity-exporting countries would go through an economic slump due to diminishing export revenues. Therefore, there are double threats if a country continues to rely on commodity revenues instead of specializing in high-tech manufactured products. From 2010 onwards, it is the case that most of Latin American countries suffered from.

When the commodity boom came to an end, several Latin American countries fell into stagnation. Likewise, those leftist leaders ran short of commodity revenues and inflow of foreign funds. It was not good news for particularly populist leftists such as Kirchner's Peronism in Argentina, Chavismo in Venezuela and Correa in Ecuador as there were limited funds remained for populist distribution and social programs. An IMF report also highlights the downward trend of commodity-reliant economies: "Economic growth in Latin America and the Caribbean in 2016 was the third-lowest in some 30 years, contracting by 1 percent in 2016 after stagnating in 2015…Over the medium term, however, external demand is likely to be lower than its historical standard, particularly given China's transition to a more sustainable growth pattern that is less reliant on investment and commodity imports" (International Monetary Fund, April 2017, p.17-18). Economic downturn triggers a political shift or public insurgence in some Latin

American countries. In 2015, the center-right Mauricio Macri defeated 12-year long populist Kirchner ruling in Argentina. As a result of the commodity slump, economy of Argentine deteriorated and the president Macri started to implement pro-investor policies to gain the support of foreign investors and creditors (Bremmer, 3 April 2017). In Ecuador, after the leftist president Rafael Correa's term came to an end, former vice president Lenín Moreno was elected by a small margin. The diminishing popular support to the ruling party and an increasing debt are negative outcomes of the commodity slump in Ecuador (Bremmer, 3 April 2017). In Bolivia, the first indigenous president of the country, Evo Morales lost a referendum in February 2017 which would have enabled him to continue his fourth presidential term. However, the decreasing natural gas prices and deep growth slowdown threaten the continuity of the popular support. As a worst case, Venezuela struggled with the economic depression and violent protests after Hugo Chávez died in 2013; the successor of Chavez, Nicolás Maduro seemed to be incapable of overcoming endemic challenges. The commodity slump and international sanctions posed serious challenges to the ruling party in Venezuela. As a result of the deep recession, inflation rate skyrocketed and the Central Bank stopped publishing inflation data as of December 2015. As a result of the severe contraction of economy, the government also stopped releasing the GDP numbers in February 2016 (Bremmer, 3 April 2017). In sum, the governing left parties in Latin America have gone through a deep-rooted recession and political decline. Ruling parties have begun to lose votes due to widespread corruption affairs and negative impacts of recession on citizens. In this regard, it is a fact that ruling leftist parties need to overcome structural challenges such as commodity-dependence and corruption in order to become immune to political and financial crises.

8. Conclusion

Beginning from the Vargas Era in the 1930s, Brazilian politicians and economists have long endeavored to develop Brazilian economy through large-scale industrialization and national development programs. Back in the early 1950s, two Brazilian scholars from Structuralist Development School, Fernando Henrique Cardoso and Celso Furtado pioneered the theory of national developmentalism in Brazil. Then, the successor of these two theorists, Luiz Carlos Bresser-Pereira adapted the structural theory to the political-economy of the twenty-first century. As a result, the model of neo-developmentalism has appeared as a modified version of the "old" national developmentalism. In the late 2002, a pro-labor political party, the Workers' Party, came to power in Brazil. It was the first time that a pro-labor party came to power in Brazil since the 1964 coup d'état. The political and economic agenda of the Workers' Party was a perfect fit for the Bresser-Pereira's neo-developmentalism. Given the favorable global financial environment, it was a great opportunity to develop Brazilian economy into a high-income economy. During the first ten years of the Workers' Party, it seemed that macroeconomic indices were improved and income inequality was significantly diminished. Brazil even managed to cope with the negative impacts of the 2008 financial crisis due to its prudent macroeconomic policy and excess of foreign exchange reserves.

Historically, Brazil differs from other Latin American countries on the basis of the legacy of strong state tradition against advocates of neoliberalism. Unlike the most of Latin American countries, Brazil did not implement radical neoliberal policies, even in the heydays of neoliberalism. At the beginning of the 2000s, the elected Workers' Party (PT) adopted a hybrid economic development program instead of complying with the Washington Consensus. The distinctive stance was derived from the relative power of

Brazil as a regional rule maker and the large domestic market that it owns. For instance, in comparison with Mexico, Brazil has a broad regional size with extensive natural resources and large domestic market. Therefore, it possesses the power to choose its own economic path and to resist neoliberal pressures from outside. Considering these advantages, Brazil had a significant chance to transform its economy into an innovation-driven high-income economy. However, the Workers' Party could not sustain the momentum of promising economic performance and overlooked widespread corruption among party members and bureaucrats. The structural reforms in education, finance and industry were not implemented at the right time; and Brazilian economy became susceptible to external shocks. After the global commodity prices started to plummet and Chinese economy slowed down, Brazilian economy began to go downwards.

In this research, we attempt to examine underlying factors behind the decline of neo-developmentalist PT. The interplay of domestic and external factors triggered political and economic crises in Brazil which ended the ruling era of PT. The outbreak of grand corruption scandals and the cumulative effects of the structural deficiencies such as the low quality education and the scarcity of human capital are considered as domestic factors which account for the demise of the PT. In addition, external factors that involve stagnation of Chinese economy and the global commodity price shock had also fatal impacts on the then-ruling PT. Through the interaction of these factors, Brazil fell into a serious economic recession and became incapacitated to deal with it due to the domestic political deadlock. Moreover, the structural deficiencies aggravated the effects of economic recession by increasing the vulnerability of Brazil. It is difficult to single out any of these factors as the sole underlying cause for this outcome. Each factor partly accounts for the decline of the PT.

The decline of Brazilian neo-developmentalism is explained on the basis of the interplay of domestic and external factors. In this respect, it is possible to reclassify underlying factors as proximate and structural factors. Political backlash which was driven by corruption scandals and economic recession that was derived from commodity price shock and Chinese stagnation can be considered as proximate factors; because these factors had immediate impacts on the administration of PT. On the other hand, there are also structural factors which contain long-standing education challenge, lack of human capital accumulation and inability to create an innovation-driven economy. There is a consensus in the long-term economic program and developmentalist party rhetoric to overcome structural challenges. It was obvious that structural deficiencies were major barriers to success of neo-developmentalism. In addition, longtime neglected structural deficiencies undermined the resilience of Brazilian economy against future financial crises. However, when it comes to reforms, it seemed that the Workers' Party did not take required steps to develop the innovative and technological capacity of Brazilian economy. In this dissertation, there is an attempt to highlight the significance of structural reforms regarding education, R&D, and export-driven manufacturing. Therefore, the major contribution of our research derives from the emphasis given to the structural aspects of the recent crisis.

At this stage, it seems relatively difficult for political elites of the Workers' Party to recover from the economic downturn and political turbulence that they went through. After the then-president Dilma Rousseff was impeached by the decision of the Congress, the then-vice president Michel Temer took over the presidency and signaled that he will adopt a more orthodox economic stance. Meanwhile, the former President and the leader of the PT, Lula da Silva was convicted of corruption and sentenced to nine and a half years of imprisonment. If Lula da Silva appeals the court's decision and is acquitted on charges, he may attempt to run for presidency in the 2018 autumn. If this scenario happens, Lula da Silva can be a strong candidate for the next presidential election. However, even if Lula da Silva is once again elected as president, it will not be easy for him to surmount the deep recession and continue his neo-developmentalist program. As it is discussed above, the decline of neo-developmetalist PT did not happen suddenly; instead, a number of deep seated factors combined and gradually set the stage for the decline. In this regard, whoever becomes the next president, there is an imperative to eliminate widespread political corruption and to make structural reforms to create an innovation-driven and knowledge-based economy.

After the incumbent President Dilma Rousseff was impeached by the Congress in 2016 due to her fraudulent administrative act, the then-vice President Michel Temer took over the presidential position. Considering the intensity of economic recession, it is not easy to fully recover within a short span of time. Although, the President Temer attempted to take austerity measures such as raising retirement age or cutting public spending to overcome the recession, his ruling term is limited up to the next presidential election in 2018. There is a need for a new political leader who is able to get large popular support and to form a broad alliance with other parties in order to implement counter-cyclical policies and structural reforms. After the election of a new president, Brazil will be able to deal with the recession in a more effective way. However, when it comes to the political chances of the former PT leaders, it is quite difficult for them to rebuild their political reputation and to form a presidential coalition. From the perspectives of left-leaning PT, there is a political "coup" against their administrations and it will be extended further when the presidential candidate Lula da Silva is restrained from running in the upcoming presidential election (Watson, 11 August 2017). If the leftist scenario occurs and the Workers' Party comes to power once again, the first task of the PT would be to make urgent fiscal and monetary reforms to recover economy from the recession. In the long term, the major target can be to restructure education and industrial policies in line with principles of innovation and global competition. However, if the second scenario happens and a pro-market party comes to power, it is possible to expect radical austerity measures in the short-run and the reversal of all pro-social laws and policies in the long run. In this respect, the future of neo-developmentalism in Brazil is closely tied to the election ban of former president Lula da Silva. If he is allowed to run for presidency, there is a still high chance for the PT to win the election as most of urban and rural poor citizens continue to support the pro-social PT.

Furthermore, considering Brazil as a state-permeated economy, there is a need to reorganize state-business relations on the basis of formality, transparency and efficiency. Compared to Russia and China, Brazil has a more established democratic system, stronger civil society and independent judiciary. General elections are consistently held in every four years with a minimum turnout of 75 percent. As a country which underwent 20 years of military rule, organized labor movement and civil society are still stronger than many of its neighboring countries. Also, the independent judiciary can be seen as a key institution which ensures the continuity of the well-functioning democracy. In that sense, there is a solid separation of powers in Brazil and each branch is clearly restricted within its own domain of power by the constitution. If these institutional advantages are preserved, it would be easier for Brazil to sustain its economic progress in the long run. During the Workers' Party era, the government acted in a paternalistic way by exerting heavy influence over business groups and civil society. Paternalistic attitude of the ruling PT led the rise of clientelistic practices which are based on informal contracting and favoritism. To decrease widespread corruption, it is of high importance to reorganize bureaucracy-business relations on the basis of transparency and efficiency. In this respect, Brazilian democracy still has a room to improve further.

After the outbreak of grand corruption scandals, political credibility and reputation of the Workers' Party were considerably tarnished. Even though, poor segments of urban and rural populations of Brazil still support the Workers' Party, the political capability of the PT to form a legislative coalition and to pass a major law was considerably weakened. The mechanism of checks and balances is still strong in Brazilian presidential system which stipulates the ruling party to cooperate with opposing parties within the Congress. The impeachment of then-President Dilma Rousseff revealed that the Workers' Party lost its legislative support in the Congress. In the absence of legislative support, it is barely possible to make extensive structural reforms and recover from the economic recession. If there will be a new candidate from the Workers' Party for the next presidential election, it is necessary for them to receive support from all segments of society and to form a legislative coalition in order to provide the short-term stability. The neo-developmentalist program of the PT was an important model for other Latin American countries as it proposed a heterodox economic recipe against neoliberal market orthodoxy. Considering the regional influence of Brazil, it is possible to suggest that the future of neo-developmentalism in Latin America will be shaped by political dynamics of Brazil.

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