

Brazil Emerging Market: Service Sector

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*This thesis and Master Degree is dedicated to my grandparents, mother, and my little brother
Diego who always supported me from the very beginning.*

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Brazil Emerging Market through the service sector

Brazil is considered one of the fastest-growing economies in the last few decades. Even though they are not considered a developed country, Brazil has been on the list of the countries with the biggest potential to become a developed country. Brazil has been able to use its resources such as commodities and advanced industry to grow its economy throughout the time. Based on the recent GDP's, Brazil has become mainly dependent on their service sector with almost producing 61% of their economy. Brazil is very interesting to analyze since it is the main Latin American country with the opportunity of becoming a developed country. Brazil becoming a developed country can mean the way to lead other Latin American countries to improve their economy and maybe become a developed country as well. Even though Brazil has many rich resources and strategic geography, they still face many similar problems that other Latin American countries face. In order to understand the growth of the service sector, we first need to understand Brazil's past economy and its growth in industrialization. Also, an important crisis point that shaped and changed their economy. The World Bank Group stated in their article "Agriculture Productivity Growth in Brazil": "During the past three decades, Brazil's agriculture sector has grown at an impressive rate. Brazil has become the world's largest producer of sugarcane, coffee, tropical fruits, frozen concentrated orange juice, and it supports the world's largest commercial cattle herd at 210 million head. Brazil is also an important producer of

soybeans, corn, cotton, cocoa, tobacco, and forest products. Production increases have resulted in reductions in domestic real food prices between 1975 and 2000, in particular for items such as sugar, rice, banana, potatoes, coffee, beans, oranges, tomatoes, carrots, and lettuce (Barros, 2002). This reduction in food prices has also been accompanied by a reduction in food price volatility, not only benefiting the rural population but large urban centers as seen in Figure 4 for the case of prices of the basic food basket in the Municipality of São Paulo. Furthermore, Brazil's agriculture growth has buffered the country against large economic contractions".

One of the main reasons Brazil has the ability to offer so many unique commodities is thanks to their possession of amazon. In Amazon, there are unique fruits such as guarana, acai, and bacuri. These fruits grow mainly there because of their soil and environment. The acai is an acid fruit with many benefits that are mainly grown in the city of Para, Brasil around the rainforest of the Amazon. Acai's high in nutrients, it's an antioxidant that is great for avoiding illness such as cancer, helps regulate cholesterol levels, and it boosts brain functions. Brazil's uniqueness of having amazon gives them the advantage to have more production and a bigger variety of commodities to export in different markets and countries. During the 1999s the international prices of commodities such as soybeans increased very drastically. Brazil on the other hand was able to have explosive growth in the agricultural sector since they were able to produce more soybeans for a lower price than their competitors which came as a result of the high demand for the commodity. This event caused Brazil to encourage its growth in agriculture and multiply its production. The Brazilian author Antonio Salazar Pessoa wrote in his article "Crescimento Agricola No Periodo 1999/2004": " The recent cricket crop in Brazil is characterized by a strong expansion of the whole plant rye, grafted with an Agricola crescent crop in which the cress crop is very numerous, during the whole decade in 1990. This is a special note on the soybean case,

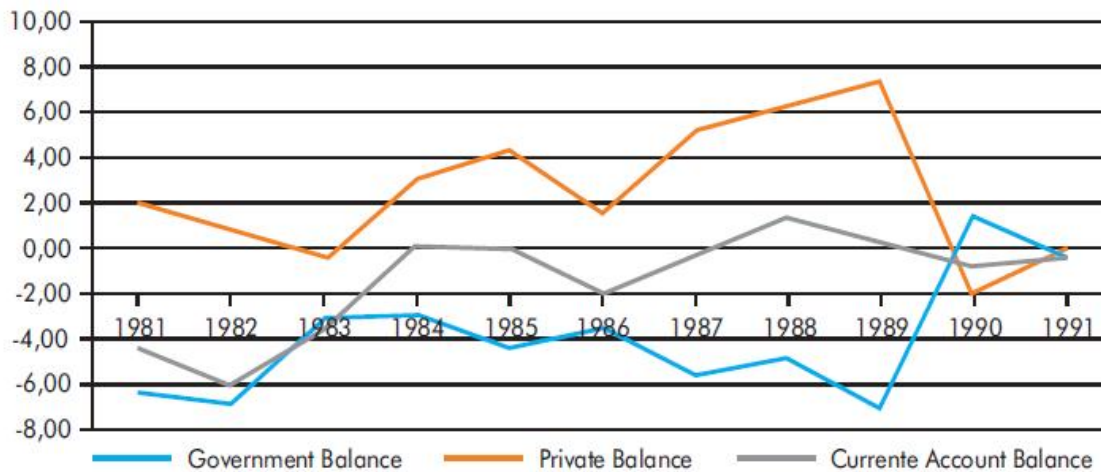
which is registered at the rate of 3.6% annual plant growth rate per the year 1990 / 91- 2000/01 for more than 13.8% between 2000/01 and 2003/04, conforming to Figure 4. Entertaining, the annual media crop rate of total plantation with “gray outs” (minus to soybeans can be used, passing from -3.5% to -0.7% compared to two periods. However, the aggregate of the total area planted with all crops (except soybeans) has practically not changed its behavior in the period. The growth and improvements are some of the main reasons that have allowed Brazil to keep growing in different markets and be reaching the infrastructure of a developed country.

Brazil Economic Crisis & High Inflation

It's very important to understand how Brazil became the biggest economy of latin america and the struggles they have encountered throughout the time. Brazil grew its economy thanks to their rich sources of agricultural and manufacturing. Throughout the time Brazil was able to become strong financially and build a whole empire. The issue came that this happened through a time of dictatorship that even though there was a lot of internal conflict they were able to raise Brazil's economy and infrastructure. In the long term this dictatorship encountered the problem of high debt due to all the money they used in order to create all the infrastructure. The country found itself in a high inflation for many years. Brazil's economy was doing properly until it hit the 1980's debt crisis which affected most latin american countries. The U.S. The Library of Congress stated in their article “ The 1981-1984 Period”: “ In 1979 a second oil shock nearly doubled the price of imported oil to Brazil and lowered the terms of trade further. The rise in world interest rates increased sharply Brazil's balance of payments problem and the size of the foreign debt. Nevertheless, the government continued borrowing, mainly to face an increasing debt burden, while it tried vainly to maintain the high-growth strategy. At the beginning of the

1980s, however, the foreign-debt problem became acute, leading to the introduction of a program to generate growing trade surpluses in order to service the foreign debt. The program was achieved by reducing growth and, with it, imports, and by expanding exports. As a result, in 1981 real GDP declined by 4.4 percent. The 1982 Mexican debt crisis ended Brazil's access to international financial markets, increasing the pressure for economic adjustment. Inflation accelerated as a result of a combination of factors: the exchange-rate devaluations of the austerity program, a growing public deficit, and an increasing indexation of financial balances, wages, and other values for inflation. The first two factors are classical causes of inflation; the last became an important mechanism for propagating inflation and in preventing the usual instruments of inflation control from operating.” The high inflation and the increase in interest rates just caused the debt to double, requiring more help to bail them out from the IMF and World bank. The IMF reports that presently, Brazil holds approximately 111 billion dollars in foreign debt, which constitutes 9.6 percent of the entire 1.15 trillion dollar Third World debt. Brazil was forced to turn to the IMF for capital lending when commercial banking institutions from Western Europe and the United States discontinued their lending to Brazil in early 1983. Moreover, the inability of the indebted developing countries [i.e. Brazil] to make decreasing export revenues meet rising debt obligations led to balance of payments deficits for the indebted Third World nationstates. Consequently, the IMF took hold of the pivotal role as "short term capital lender" and coordinator of debt renegotiations with commercial banks on behalf of the indebted countries.^{10 5} Above all, in return for capital funding and facilitating debt restructuring negotiations with the private banking institutions of the North, the IMF demanded the indebted Third World countries to adopt stringent "austerity programs" which were governed by the IMF's traditional conditionality

requirements. Consequently, Brazil received financial assistance from the IMF in early 1983, and the IMF instituted rigid austerity programs for Brazil.



The chart on top represents how the government and private debt behaved during the crisis of the 1980's and how the debt was increasing throughout the year. Even though the crisis has led Brazil's economy to increase in unemployment and poverty rate, some Brazilian economists have argued that the hyperinflation of Brazil has actually caused a few positive things. Many economists argue that when there is recession in a country is when there is more opportunity for improvement and opportunities. In the case of Brazil, economists argue that due to the hyperinflation Brazil has been able to become a pioneer of new banking methods, for example online banking. Another good side of the hyperinflation was that Brazil was able to learn with the time how to deal with certain economic problems and how to create new reforms that actually will help respond better to the situation. A group of Brazilian economists stated that the main issue of hyperinflation came from the government spending will double and triple per year without no limits causing the debt to become unaffordable. Also, another reason the cause of the crisis was that many people in the government were committing corruption by taking millions of dollars to personal accounts. The author James Davidson stated in his article "Brazil is the new

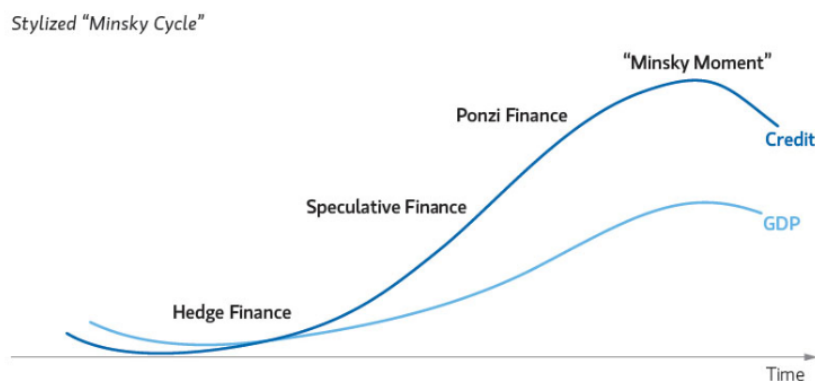
america”: “ Economists at Brazil ’ s largest private bank, Bradesco, looking over a longer period, asserted that accumulated inflation in Brazil between 1961 and 2006 was 14.2 quadrillion percent. That is 14,200,000,000,000 percent — the highest in the world over that 45-year span. Decades of hyperinflation provided Brazil with an expensive tutorial. This led Brazil to realize at least two distinct advantages: 1. Hyperinflation spurred Brazil to pioneer advanced online banking. With the value of money declining at a 2,000 percent annual rate, everyone wanted to get rid of cash as quickly as possible. Consequently, the lackadaisical check clearance characteristic of the United States would have been intolerable for Brazilians whose checks clear within 24 hours. As a result, Brazil pioneered Internet home banking and electronic funds transfer. As Virginia Philip, an analyst at Tower Group, Needham, Massachusetts, specializing in financial services and technology says, “ I definitely would put the major Brazilian banks in the very elite in the world of online banking. Banks across the world look to them as models. ” 2. Hyperinflation not only gave Brazilians cutting-edge banking technology, it taught them that financial crises were not just theoretical possibilities or footnotes from the past, but vivid realities. Consequently, Brazilian leaders somehow found the stomach to impose highly conservative regulation that reduced leverage for banks to protect depositors and prevent the banking system from becoming an accomplice to quantitative easing.” What helped Brazil to equilibrate the inflation for a period of time was the Real stabilization that happened in the 1990’s. The Brazilian government was able to add value to their new currency and even decided to peg the US dollar until the end of 1999. Thanks to the introduction of the real, Brazil was able to decrease their inflation from 40% to 4% in just half a year. Another thing the government decided to do was to buy enterprises that were on the edge of bankruptcy or that were high in debt, with the purpose of getting rid of their debt and selling those entities to international

financial institutions like J.P. Morgan. With the help of regulating inflation and with its new currency, Brazil was able to become a more attractive opportunity for investment to foreign investors. The author Edmud Amaan wrote in his article “Brazil as an emerging economy”: “The spectacular success of the Real stabilisation plan (introduced in 1993-4) was in part connected with the appreciation of Brazil's currency, which was due to high interest rates that were important stabilisation instruments that were used at the time (Baer, 2008, ch. 7). These high base interest rates (varying between 7% and 10% in real terms) attracted a substantial amount of capital which appreciated the currency and thus facilitated the stabilisation efforts. For a while this came to be known as a policy of controlling inflation via an exchange rate anchor (Amann & Baer, 2003). Although this policy was discontinued at the turn of the century and a policy of "inflation targeting" was introduced there was a continued emphasis on the use of high interest rates to underpin price stability. Since that time Brazil's interest rates have been among the highest in the world and have attracted substantial portfolio inflows (some speculative in nature) which in turn have led Brazil to have one of the most appreciated currencies in the emerging world.”

Hyman Minsky Theory and Ideologies

Minsky theory can be applied to what happened to Brazil during the debt crisis in the 1980's because it shows the pattern of stages where Brazil was having a strong economy and then they became confident until they had a big account deficit and couldn't get themselves out of it. The American Economist Hyman Minsky came up with a hypothesis of what causes and how we should approach financial instability and poverty. Latin American countries can prevent constant financial instability by responding against the causes of the Minsky financial instability

hypothesis. Minsky realized the capitalist economic system was structured in a way that has different stages of behavior that led to a crisis. Minsky believes financial instability happens after what he called the hedging stage, the Instability stage, and the Ponzi stage occurs. After a crisis, Minsky could see how financial institutions were very careful in terms of lending and borrowing due to the recent crisis, this is the stage that Minsky calls hedging. In the Hedging stage, the main purpose of financial institutions is to lend money carefully to only very qualified investors in order to minimize the risk. The second stage is the instability stage where Minsky believes that financial institutions start gaining more confidence and are more open to lending money with more flexibility. This stage is when things are usually going very well and booming, therefore financial institutions are willing to take more risk since they believe that everything is going to keep doing well. This is the best stage that shows what Minsky quotes “Stability leads to instability. The more stable things become and the longer things are stable, the more unstable they will be when the crisis hits.” The quote means that when we act that we are stable and all things will keep going stable is the cause of the instability. The last stage is the Ponzi stage, where Minsky describes financial institutions as institutions willing to lend and take almost any type of risk. The Ponzi stage is the last stage that will lead the economy to a fall and cause a recession.

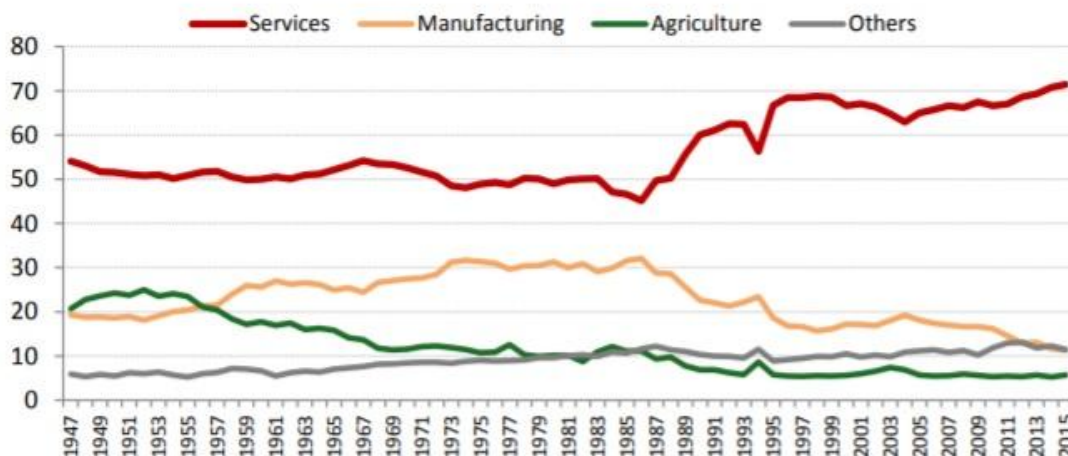


The service sector has always been the most affected sector when this kind of event happens and therefore it shows the importance of Brazil finding new methods to diversify the balance between sectors and how to improve the service sector with different mechanisms and reforms.

The Minsky moment was named by multiple post-Minsky economists who attributed the Minsky financial instability hypothesis to be correct. The Minsky moment is the moment when financial institutions have arrived at a point where they know their debt is not going to be able to be fixed and therefore it pops the bubble causing a crisis. Like a domino effect of the results from financial institutions being in a deep hole, individual investors decide to get rid of their assets causing the economy to even go lower. We can argue that Brazil 1980's crisis is the Minsky moment since the country reached a level of debt where they need help from world banks and foreign institutions in order to get out of it. The article *Journal of Economics* written by the American economic association says the following: " The Brazilian economy experienced slackening rates of industrial and aggregate output growth. At the same time price inflation accelerated toward an annual growth rate of 100 percent, while exports and the supply of imports stagnated. Numerous observers in Brazil and the United States interpreted these events as signaling the end of Brazil's economic development, which had proceeded at a rapid pace during earlier decades. These commentators cited structural conditions within Brazil and/ or within the international economy as the cause of Brazil's economic ills. We can appreciate in this quote the minsky moment and how the economy was ill by the high debt, causing high inflation and affecting the whole nation.

One of the main issues is that the country has become very developed in just a few parts of the country such as Sao Paulo, Rio De Janeiro, and Brasilia but still lack to grow in most other areas. It is important to understand how Sao Paulo became a very industrialized city and the main financial city of Brazil. Sao Paulo Industrialization gave the expansion to grow in other markets. Today Sao Paulo is a financial leader and headquarters for banking throughout all Latin America. With the Covid-19 pandemic the world economy has declined and has been affected significantly. Some countries have been more affected than others. Countries that were prepared with a plan of how to fight the pandemic are the ones that have been able to keep their economy running as usual, an example is New Zealand who reports very few cases in the country. In the case of Brazil it has been the total opposite of the situation. Brazil is the second country with most cases and death due to the coronavirus after the U.S. This has affected Brazil's economy dramatically and it has opened the position and thought of what are their new routes to first recover from their economic declines and second how they should approach in order to keep growing as an emerging economy to become a developed country. The pandemic has drastically affected the service sector which accounts to most of Brazil's GDP, that being said the country has seen themselves in a position to look for other options to maintain their GDP. Brazil's economic growth as an emerging market needs a new market approach because of the dramatic impact of the pandemic in the service sector.

-Brazil Service Sector Through The Years



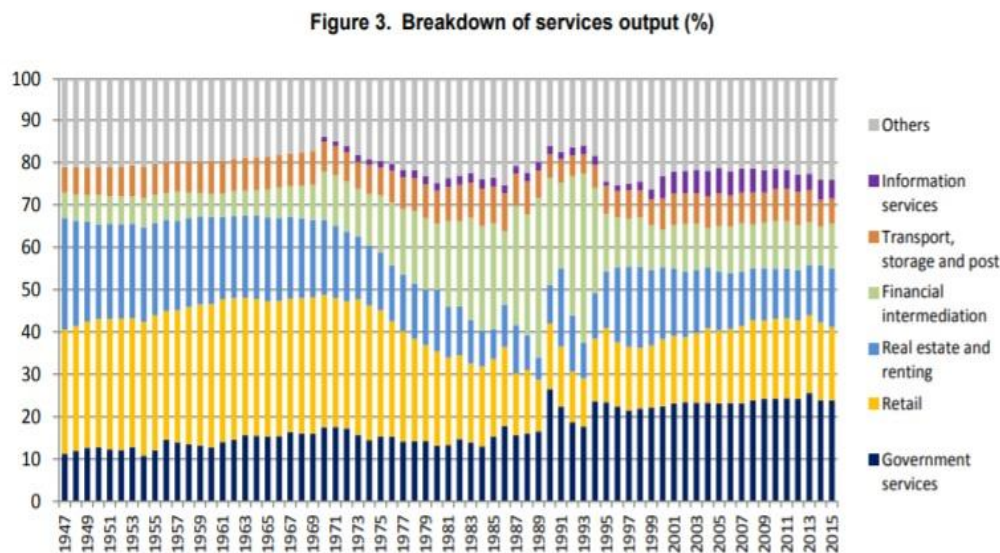
Brazil's economy it's currently driven by services, manufacturing, and agriculture. The agricultural sector focuses on all the commodities produced for exportation. The service sector has gained more dominance throughout the year. The graph on yo shows how there was a smaller gap between the different sectors during the years of 1973 to 1987. After 1987 Brazil's economy became more and more dependent on the service sector creating a very wide gap between the service sector and other sectors. Service sector has grown significantly thanks to the ability of Brazil to enter into new markets and offer new services. An example of this is the aviation company Embraer who offers aviation manufacturing and services worldwide. Petrobras is another company that offers their services worldwide. The diversification of industry has impacted Brazil economy growth and has allowed them to enter new markets by offering new services. The report offered by the OECD "Services and Performance Of The Brazilian Economy: Analysis and Policy Options" explained: " Services are the first sources of activity and jobs in Brazil. Services sectors are oriented towards a large domestic market and attract almost half of incoming foreign investments, but their export performance remains bleak. Brazilian services suffer from structural weaknesses, chief among which are low productivity

and high inflation. With a high contribution of intermediate services to manufacturing value-added, the lack of productivity in services spills over to curtail manufacturing competitiveness. Services are the main contributors to Brazil's GDP. The service sector remained relatively stable at around 50% of GDP until the mid-1980s; at the same time the growth of the manufacturing industry was accompanied by an almost symmetrical decline of agriculture (Figure 1). The industry share of total output peaked in the mid-1980s, at 32%. The economic structure then underwent profound changes as the services share grew rapidly at the expense of manufacturing, to reach 71% in 2015." In this article we can appreciate one of the main issues of the service sector and that even today Brazil is suffering from it. Brazil's service sector has grown as a large sector but is very weak in terms of vulnerability due to the country's economic recession with a high inflation. This occurs because their exportation services are remaining low and more focused in a domestic market, that being said this causes for the foreign investment attraction to decrease. In conjunction with the high inflation and slow exportation in the service sector, it's a matter of importance for Brazil to not depend so much on it and not allow it to become a bigger issue. The pandemic of Covid-19 demonstrated how vulnerable the sector is and what it can imply to the future of Brazil.

The service sector is broken down in different types of industries and we need to analyze and separate the job importance in the service sector. For example, the impact of high-level jobs in the GDP doesn't have the same effect of low-level jobs that also are in the service sector. High-level jobs are such as financial services which have a high impact on the GDP. While low-level jobs are such as someone who works as a front desk in a massage center. Even though the service sector signifies more than 60% of the GDP economy, it can't be weighted as the same. If the financial sectors were not changed in performance even during the pandemic then that big

percentage that represents the service sector would be able to keep performing and help maintain the numbers. Also, Brazil has been able to increase their services markets thanks to the country's tourism. When the country hosts a world event such as the world cup or the olympics, it allows the world to see what Brazil can offer, opening the door to bring more foreign investment. Brazil welcomed 6.4 million international tourists in 2014, up 10.6% on the previous year. Total revenue from international tourists visiting Brazil amounted to USD 6.8 billion in 2014, an increase of 2% over 2013, which is a new record for the country. The main source markets were Argentina with 1.7 million visitors (27.1% of the total), followed by the United States (10.2%), Chile (5.2%), Paraguay and France. Employment in activities that make up the tourism sector amounted to just over 2 million jobs in total in 2014, compared to 1.9 million in 2013. The report offered by the OECD "Services and Performance Of The Brazilian Economy: Analysis and Policy Options" explained: " The breakdown of services output over time shows several medium- and long-term trends. First, the share of public administration and public services such as health and education grew significantly in the past decades. Second, while the contribution of retail remains high, the sector has lost in relative importance over time. Third, other services including business services gained in participation. Fourth, information services showed significant growth since the mid-1990s, which is related to technological innovation and technological changes. Fifth, the share of financial intermediation grew from the late 1960s to the mid-1990s, which probably reflects the effects of the reform of the national financial system in the late 1960s as well as the "inflation tax" accruing to the sector in the form of high interest rates during the high-inflation era; it has declined since but remains high at 10% of total services. The government has come up with different solutions to incentivize the production. It can be

shown that Brazil is a country that their households like to highly spend on different types of services.



The Brazilian government has realized the main issues with the service sector underperforming especially in the exportation. We can see that the United Nations Conference on Trade and Development agrees with the OECD article on what are some of the main issues that Brazil's service sector faces. The United Nations Conference on Trade and Development stated in their article “ Overview of the services sector of Brazil”: “ One of the major obstacles to the development of public policies to boost foreign trade in services used to be the lack of detailed information on the sector and its trade performance. Furthermore, considering that foreign trade in services is an unambiguous measure of the competitiveness of the Brazilian tertiary sector, the usefulness and the importance of reliable data go beyond foreign trade issues and becomes a tool to support the formulation of policies aimed at the entire industry and not only to the exporting sector. In order to tackle this problem, SCS and the Brazilian Federal Revenue Office (RFB) implemented, in August 2012, the Brazilian Integrated System of Foreign Trade in Services and Intangibles (Siscoserv). Siscoserv complies with the guidelines of the General Agreement on

Trade in Services (GATS) of the World Trade Organization (WTO). The target audiences of Siscoserv are natural and legal persons resident and domiciled in Brazil that perform operations involving services and intangibles with natural and legal persons resident or domiciled abroad.” This was a crucial step to see some opportunities of growth in the service sector and try to find a better outcome to the sector issue of lack of trading and its competitiveness compared to other countries.

Another issue the service sector has a constant problem it's their infrastructure all over the country. The country has been able to develop very fast in only a very short period of time for the cities like Sao Paulo but leaving a very big gap in the other parts of the cities demonstrating a lack of capability and being able to maximize their productivity. The other main issue with the infrastructure is that actually Brazil has very fast infrastructure in cities like Sao Paulo and Rio De Janeiro due to the high debt they got themselves into in order to be able to create all this project expenses. The government of Brazil has created multiple programs that have helped battle the infrastructure and logistics problems the service sector and others lack of. When a country has a main gap of development between one city and the rest of the country it usually causes the lack of diversification on the different types of sectors. One of the projects the government decided to create to battle was the Growth Acceleration Program. The United Nations Conference on Trade and Development stated in their article “ Overview of the services sector of Brazil”: Created in 2007, the Growth Acceleration Program (PAC) consists of two parts: (i) investment in infrastructure and (ii) institutional measures. The first part is subdivided in logistics, energy, and social and urban development. The institutional measures are geared towards the relief and improvement of the tax system, encouraging credit and financing, improvement of the investment environment and long-term fiscal measures. A second phase of

the Program was launched in March 2010. In August 2012, the Brazilian government launched the Logistics Investment Program (PIL). The goal of the program was to increase the range of public and private investment in transportation infrastructure and to promote the integration of roads, railways, ports and airports, reducing costs and increasing transportation capacity, and promote efficiency and increase the country's competitiveness. In the Brazilian government administration, different ministries and agencies act directly in regulating the services sector, in line with the guidelines of the Presidency. MDIC, within its competences, maintains a constant liaison with other government agencies and entities, helping to identify the infrastructure and logistics needs to leverage trade and the competitiveness of the Brazilian productive sector. However, it does not act directly in the development of policies and regulatory guidelines for this sector. Despite the unfavorable economic situation in Brazil and the consequent adjustments made to adapt the federal budget to the new tax environment, the program has achieved some degree of progress in recent years.”

Another remarkable situation is that Brazil's service sector has changed its path due to the economic crisis that occurred in Mexico during the 1980's. Analytics have shown that the Mexican Crisis caused an immediate effect on other Latin American countries like Brazil, Argentina, and Ecuador. The crisis didn't only affect the service sector but one of the worst recessions in Brazil. The crisis caused another High Inflation wave where unemployment skyrocketed and poverty increased dramatically all over the country. Due to the crisis the service sector has a high impact due to the situation that most jobs are in that sector in a mix of high-income jobs and low income jobs. An increase in unemployment rate has a default increase in

crime rate causing Brazil to be one of the main reasons why they are not able to give that final step of becoming a developed country.

Table 2: Industrial Employment (% of total employment)

<i>Região</i>	1960	1970	1980	1990	1998
Sub-Sahara Africa	4,4	4,8	6,2	5,5	5,5
Latin America and the Caribbean	15,4	16,3	16,5	16,8	14,2
Brazil and Southern Cone	17,4	17,2	16,2	16,6	11,8
West Ásia and Northern Africa	7,9	10,7	12,9	15,1	15,3
South Asia	8,7	9,2	10,7	13	13,9
East Ásia (except China e Japan)	10	10,4	15,8	16,6	14,9
NIES	10,5	12,9	18,5	21	16,1
China	10,9	11,5	10,3	13,5	12,3
Developing World	10,2	10,8	11,5	13,6	12,5
Developed World	26,5	26,8	24,1	20,1	17,3

Source: Palma (2005), weighted averages.

The author Gabriel Porcile stated in his article “ Structural Change and the Service Sector in Brazil” the impact of Mexico crisis in the Brazilian economy and unemployment as the following: “ In the eighties industry in Brazil suffered a significant contraction in terms of its share in total employment, which was not fully reverted subsequently. This contraction was a consequence of the external debt crisis that followed the Mexican default in 1982. Table 2 compares the eighties with the previous decades in several countries, including Brazil and the Southern Cone of Latin America (Argentina, Chile and Uruguay). Two points should be stressed in Table 2. First, the fact that in the Asian countries (and in the New Industrializing Countries, NIES, in general) the share of industrial employment in total employment increased. Secondly, in the case of Latin America the observed trend was the opposite, i.e. this share decreased. As observed by Cimoli et al (2005), the full impact of the debt crisis in the eighties - that seriously compromised investment rates and capital accumulation - and the unilateral liberalization policies associated with currency overvaluation of the seventies (Southern Cone) and nineties (Brazil and the Southern Cone), combined to produce this declination of industry in the

economies of the region.” Mr. Porcile believes that the Asian countries had the advantage of rapid growth in technology while at the same time the Latin American countries were running through a very big debt crisis. Having both events happening at the same time, the Asian technology growth and Latin American crisis, caused a gap between the two continents and gave an opportunity to the Asian countries to have bigger investments and authority in different markets. Here Mr. Porcile shows one of the reasons Brazil's service sector has lacked over the years and being able to compete with other countries when it comes to exports and trading. The importance of Brazil and Latin American countries investing in their country's technology and education is what they can do to increase their competitiveness. Mr. Porcile calls Latin America in the eighties as an era of deindustrialization. He said, “If we define deindustrialization as a persistent reduction in the industrial share of total employment, then we can conclude that deindustrialization did happen in Brazil and several Latin American countries in the last twenty years. Moreover, the evidence presented above points out that this was not a virtuous process based on rapid productivity growth and in the emergence of more dynamic sectors. Rather, they reflect the effects of certain types of policies that deeply affected technological learning and the international competitiveness of the industry. Between 1986-2006 have shown the lack of productivity in the service sector. It has been shown that even though the industrial sector has grown at a much lower rate than the service sector, the years that the economy was having a stronger GDP was the period the industrial sector was having a major boom. Mr. Porcile believes this is due again to the lack of technology the service sector has compared to the industrial sector. Even though the industrial sector is not as advanced as other technological countries, it was providing a strong production and increase in the Brazilian economy. The author Gabriel Porcile stated in his article “The industrial sector, in turn, is not homogenous from the point of view of

technological learning and externalities. Some branches of industry are more technology-intensive than others. We used the typology suggested by Lall (2000) who divided the industrial sector in four groups: (i) intensive in natural resources; (ii) low-technology; (iii) medium-technology; (iv) high-technology. While industry as a whole lost about one point in total employment between 1985 and 2005, the sector intensive in natural resources slightly increased its participation. Clearly, there has been a change within the industry as regards the distribution of employment, which moved against technology-intensive activities. This finding is confirmed in a more precise for by using a shift-share decomposition of the factors that explained labor productivity growth in this period.”

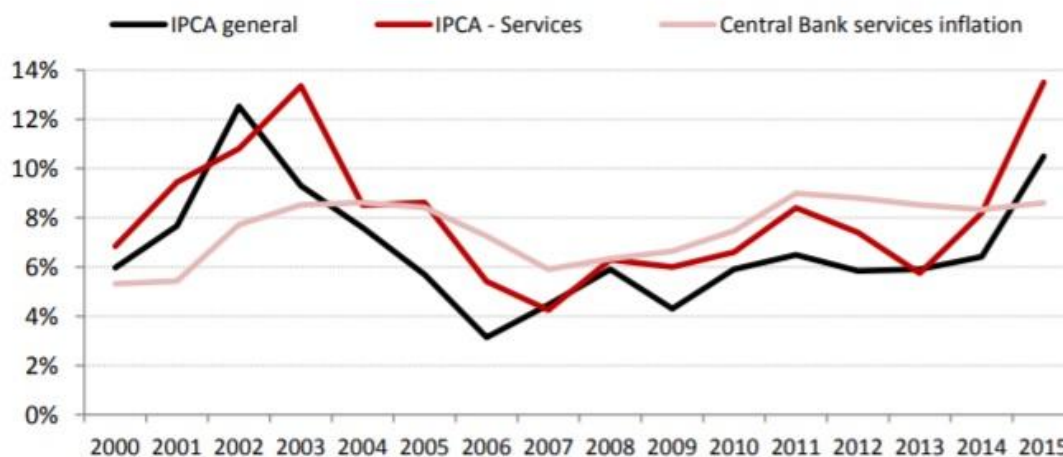
Brazil Economy and Service Sector During the Pandemic

During this period of the world pandemic Covid-19, Brazil has been affected negatively in the economy and humanitarian. In the last few months Brazil represents the most dead people per country. Based on news from every three people dying from Covid-19, one is Brazilian. The service sector declined 4.7% during the year of 2020 and it culminates a whole decade of decline. This shows how the service sector has lost strength throughout the last decade and why it is important for the Brazilian economy to have a less dependent economy on the service sector, if they want to be able to grow their economy again. Jamie McGeever wrote in his article “Brazil GDP drops 4.1% in 2020, COVID-19 surge erodes rebound”: “ Brazil’s economy shrank by 4.1% last year due to the coronavirus pandemic, its worst drop in decades, data showed on Wednesday, as a devastating second wave of COVID-19 threatens to cut short a stronger-than-expected rebound at the end of 2020. Latin America’s largest economy grew

by 3.2% in the fourth quarter, according to official statistics agency IBGE, more than the 2.8% median estimate in a Reuters poll of economists. However, that recovery, based on consumption by households receiving emergency government cash transfers, may be eroded by a resurgent outbreak now killing record numbers of Brazilians and adding to fears of another downturn early this year. The full-year 2020 drop was the worst since the current IBGE series began in 1996. The 2020 plunge was also the worst since a 4.35% fall in GDP recorded in 1990, according to central bank data going back to 1962, and the third-steepest in that series. Among the gloomiest forecasts at the onset of the pandemic, the World Bank and International Monetary Fund estimated that Brazil's 2020 GDP would shrink by 8% and 9.1%, respectively." The article can show us how the world bank has a negative forecast for Brazil in the long run, even though the economy has made some progress during 2021, it's more like a short run economy boost as a domino effect of the government providing stimulus checks to the society since many were forced to stop working. In the long run Brazil is facing the same issues of inflation and an economy that is declining for the upcoming years.

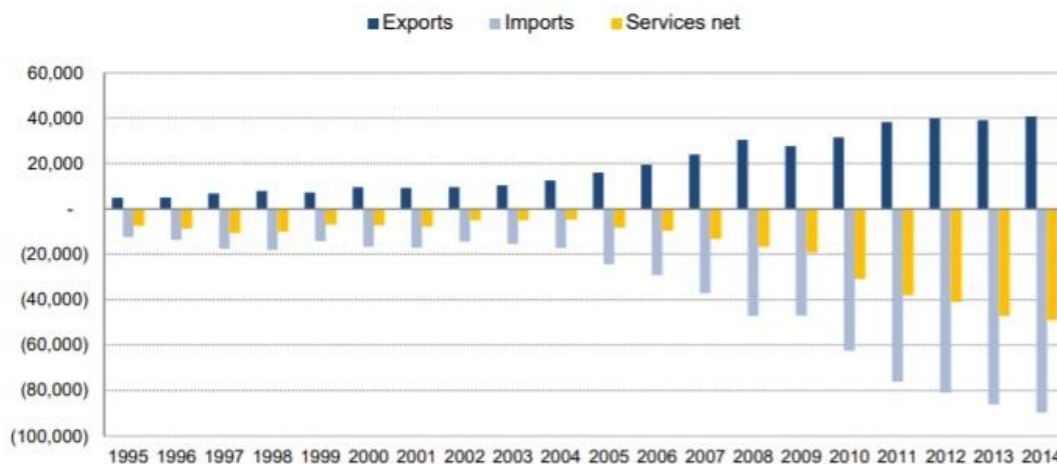
Another thing to have in consideration when we are talking about the service sector it's how it is broken down and the impact it has on its GDP during the pandemic. If we take into account the service sector is broken down into different categories. Some are in high income jobs that can relate and involve financial institutions, aviation, medicine, engineering, and others. High income jobs in the service sector are jobs that actually have a big impact on the economy GDP while low income jobs not as much. It's important because high income jobs actually were not as affected during the recession and pandemic like low income jobs that actually put a lot of people unemployed.

Figure 6. Services inflation rate (in %), 2000-2015



The OECD wrote in their article “SERVICES AND PERFORMANCE OF THE BRAZILIAN ECONOMY: ANALYSIS AND POLICY OPTIONS”: “Yet services are not competitively priced compared to the rest of the economy. Figure 6 plots services inflation against overall CPI inflation (IPCA) in the period 2000-2015. The IPCA-services components inflation and the Central Bank services inflation rates were substantially higher than the headline index, adding up to services prices hikes of about 60 percentage points above general inflation over 15 years. Low services performance acts as a constraint to the dynamism of the whole Brazilian economy. In order to bolster industrial competitiveness, attract foreign investment and participate in global value chains, Brazil’s economy requires quality services at competitive prices.” The article also talks about how the service sector has a very high burden on taxes compared to the other service sector. The article states that 24% of the total revenue made by the service sector will go to taxes in comparison to other sectors which is much lower. In the end this backlash to Brazil's economy by limiting the capabilities of quality in the service sector since owners in the service sector have less revenue to invest in technology and upgrade their services and operations.

Figure 8. Brazilian services trade flows in USD million, 1995-2014



Source: Central Bank of Brazil, Balance of Payments, BPM5.

The graph is able to demonstrate how the deficit has grown over the years along with a negative growth in the service sector as well. The trade deficit symbolizes the lack of the service sector in growing their operations in foreign exports. Brazil has lost field and competition in the foreign market and its GDP has been affected by it. The OECD wrote in their article “SERVICES AND PERFORMANCE OF THE BRAZILIAN ECONOMY: ANALYSIS AND POLICY OPTIONS”: Brazil’s services trade has increased substantially over the last two decades, particularly since the mid-2000s. Between 2005 and 2014, exports of services increased by an average 11% per annum, while imports of services grew at an annual average of nearly 16% (Figure 8). These trends have contributed to a widening services trade deficit and, in recent years, an increasing trade deficit, exacerbated by the global commodity slump and a slowdown in Brazil’s main trading partners. Brazil’s recent currency depreciation may temporarily help improve the overall trade position¹², but reviving the international competitiveness of Brazilian services in the long term will require tackling its structural determinants.

Implications & Future Solutions

After talking about different issues the Brazilian economy and service sector faces, we can say that certain things need to be changed with the purpose of Brazil giving a turn to its declining economy and to also have an opportunity to move forward in becoming the first latin american country that is considered a developed country. The issues the service sector has implies that it actually has slowed down Brazil's economic growth and it only has created a bigger deficit contribution to the economy. Also, it implies that Brazil should be less dependent on their service sectors and be open to increase their productivity in other sectors. Brazil's economy has suffered for a long time and creating new methods to increase their productivity it's the best way to come out of it. The government should not only concentrate on increasing the productivity of other sectors but also come up with solutions with the current problems of the service sector.

One thing the service sector can do based on the issue of lacking productivity is investing in services that add value through differentiation, customisation and innovation, such as R&D, design engineering or IT services that are associated with substantive productivity. This was said by the OECD who refers to Brazil's service sector a lack in technology compared to other international competitors. This is something excellent because it not will only help to increase productivity and foreign presence, but also it means the service sector will have a more advanced field causing the service sector to be less impacted when big catastrophes like the pandemic happens. A more technological sector means more high income jobs are available and the low income job will decrease.

Another thing they can do is to invest in more service projects that lower production costs. This can be seen as not only increasing productivity but also lowering the costs of

production with the purpose of being able to invest more in service quality. Also, when there is an increase in quality it also means that there will be interest and attraction from foreign customers to want more of your services. In the long run an increase in demand will help to stabilize more inflation.

Losing presence in the foreign market is one of the main reasons the Brazilian economy hasn't been able to progress. Something they can try to do to increase their foreign presence is to make new free trade agreements with other countries in exchange for other benefits. An example is Brazil and China who have made new free trade agreements.

Last, one of the main things Brazil can take advantage of to grow their economy is their possession of the Amazon. The Amazon holds a lot of unique resources such as fruits and different minerals. All this means that there is opportunity for the country to enter new markets and opportunities to offer foreign investors. The governor Flávio Dino stated in his article “*Governo Flávio Dino: The Amazon Is Brazil's Future*”: “The Amazon is Brazil's path forward. In spite of the immense potential the Amazon's resources offer, its population registers the lowest human development indicators in Brazil. It has the highest unemployment, the least education and the least access to health care. The COVID-19 pandemic pushed the region over the brink in terms of health care and food access, exposing the Amazon's endemic inequalities.

Yet we see the Amazon as an opportunity for national development. The region's strategic resources stand to make it one of the planet's wealthiest – if there is a thoughtful, planned and coordinated strategy. To help overcome these challenges, the Amazon Interstate Consortium for Sustainable Development, led by the region's nine governors, has developed a plan. Called the Green Recovery Plan for the Amazon (GRP, or PRV in Portuguese), it offers a comprehensive approach to the region's economic and environmental problems. It also reinforces the consensus

calling for a regional, green economy.” As the governor said there are high obstacles that Brazil needs to address before being able to take good advantage of the Amazon and at the same time protect it, but it’s the future of Brazil and it shows a bright path.

In conclusion

In conclusion Brazil's service sector has shown a lot of growth during many decades but at the same time with many flaws that has slowed down Brazil growth and presence all over the world. It’s important for the Brazilian government to take this pandemic as an opportunity to open the eye and look for other opportunities and solutions instead of relying on the service sector. A good advantage Brazil has is that there is a lot of room for improvement and actually become the first developed country of Latin America. Brazil eventually can be the lider nation to show the path for other latin american countries.

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