SÃO PAULO STATE UNIVERSITY "JÚLIO DE MESQUITA FILHO"
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JAPAN'S BET: INFLATION AND GDP AFTER THE ABENOMICS' THREE ARROWS

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This paper was submitted to the Economics Department of the College of Letters and Sciences of São Paulo State University/Araraquara, as a request to achieve a bachelor's degree in economics.

Academic Adviser: Dr. Elton Eustáquio Casagrande, PhD

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AKNOWLEDGMENT

This paper acknowledges the former Prime Minister of Japan, Shinzo Abe, the longest-serving prime minister Japan ever had, responsible for promoting deep technical and structural changes in Japan. His legacy shall remain as a symbol of a remarkable politician who has inspired the world.

ABSTRACT

The Japanese economy has presented an unprecedented status since it has been stagnated for 30 years, with a deflation process. Under these conditions the economy could not return to the economic growth path. This economic characteristic has been called “Japanization”. During these 30 years, policies tried to regain dynamism to the economy. The latest policies are known as “Abenomics” since the prime minister Shinzo Abe launched them. These policies are still in effect even though Abe left cabinet in late 2020. The “Abenomics” aim to end the deflation process and the stagnation using three main policies called “The Three Arrows”. This paper explains the theoretical framework regarding the “Japanization” process, the “Three Arrows” of “Abenomics”. Moreover, the discussions are conducted to understand the effectiveness of the proposals related to their objectives.

Keywords: Abenomics, Japanese Economy, Inflation Target, Quantitative Easing, Monetary Policy, Political Economy.

RESUMO

A economia japonesa apresentou uma condição inédita por ter estado estagnada por 30 anos, somado a um processo deflacionário. Sob essas condições a economia não conseguiria retornar ao caminho do crescimento econômico. Essas características econômicas foram chamadas de "Japanização". Durante esses 30 anos, diversas políticas tentaram dinamizar a economia. As últimas políticas são conhecidas por "Abenomics", dado que o Primeiro-Ministro Shinzo Abe as lançou. Essas políticas ainda estão em curso, apesar de o Shinzo Abe ter deixado o gabinete ao final de 2020. O "Abenomics" almeja o fim do processo deflacionário e da estagnação utilizando três políticas principais, chamadas de " As Três Flechas". Esse trabalho explica através de revisão bibliográfica acerca do processo de "Japanização", "As Três Flechas" do "Abenomics". Para tanto, o trabalho é conduzido de forma a compreender a efetividade das propostas quanto aos seus objetivos.

Palavras-chave: Abenomics, Economia Japonesa, Inflação-alvo, expansão Monetária, Política Monetária, Economia Política.

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Introduction

Monetary and fiscal policies are measures **to maneuver economic activity**. It's not unusual to observe a country taking one of the policies mentioned to step-up its economy (SHIBATA, 2017). A decision by using **both policies** in their conventional "Mainstream" status happens to occur in a very worrisome economic scenario, caused by a crisis or a strong attempt to enhance economic development. However, a series of unconventional policies have been taken by some countries in recent days due to the harsh crisis they've experienced[1] (FERREIRA-LOPES *et al*., 2021).

These decisions usually happen in a desperate movement to increase the output and employment of the economy. In this paper, the object of study is Japan, a country which experienced, among others, unconventional policies to boost its economy[2].

The objective of this paper is to discuss inflation and growth after the beginning of the Abenomics' economic policies.

After 1990 Japan's economy was struggling to improve economic activity, and therefore policy makers engaged in a series of monetary and fiscal policies combined in an unconventional practice. Although cutting taxes and improving public spending do have significant stimulative multiplier effects on the economy, the maneuvers were insufficient back in the 1990s. (KUTTNER; POSEN, 2002).

Milton Friedman analyzed Japan policies in the paper: "Japan resorted repeatedly to large doses of fiscal stimulus in the form of extra government spending… The result: stagnation at best, depression at worst for most of the last decade" (FRIEDMAN, 2001). Friedman observed a scenario where the fiscal stimulus happening in Japan would perhaps be relevant in the long term. But it was not when it was needed the most- in the short term as a cyclical measure, and monetary policies would still be needed (FRIEDMAN, 2001).

A strong intervention of the Central Bank of Japan (BoJ) increased the purchase of Japanese Government Bonds to reduce the impacts from the late 1990s, the stagnation and deflation (KUTNER AND POSEN, 2002).

[1] Unconventional Policies are those which transfers incomes, provides easy funding to companies and customers, resigns fiscal incomes, enhance public expenditure to reduce the impacts of a recession.
[2] Other examples of countries that applied unconventional policies like Japan were: The United States of America, Euro Zone, United Kingdom, Brazil, Argentina.

The mistaken fiscal policies and the insufficient monetary actions happened repeatedly (SHIBATA, 2017). In august 2000, BoJ increased the interest rates among a scenario of deflation, and this went to the public outside the forward guidance. Nevertheless, even with the BoJ focusing on improving its rhetoric from 2003, it was clear that the monetary authority failed to manage observers' expectations; therefore, it failed to change the inflation expectation (ITO AND MISHKIN, 2006).

Posen (2002) remarked that the excessive fiscal tightening from early 2000s and the repeatedly insufficient monetary stimulus (HAUSMAN AND WIELAND, 2015) led to another lost decade. After 20 years of stagnation and deflation, since 1998, a series of theories surrounding Japan's economic situation has arisen.

After the 2008 crisis, the developed countries faced a scenario that Japan had been going through. The term "Japanization" emerged to exemplify the conditions that Japan had been in from the 1990s until 2012. Therefore, a series of policies, named "Abenomics", was proposed by the elected Prime Minister Shinzo Abe in late 2012. The economic program was launched as a new alternative to stimulate the economy of Japan.

To reach the objective in this review, bibliographic contributions were collected, all of which related to the Abenomics and the reflects on the Japanese economy. In this paper, a special analysis is made to connect the Abenomics to GDP and Inflation in Japan.

This paper is also expected to contribute to the macroeconomics knowledge in order to stimulate the discussion regarding opportunity for undergraduate researchers. This paper is structured into three sections besides the introduction. The second contains the rationality and goals intended to be achieved by "Abenomics" policies. The third provides a historical framework of the Japanese economy. And the fourth contains a Literature Review with comparisons between the selected theoretical framework of assessments of Abenomics through time since Abenomics is still in effect.

1. Historical Analysis leading to “Abenomics”

“Japanization” is a nickname referring to the Japanese economics’ status after 1990s. A correct definition of the name itself has not been achieved among the academy and it is paramount to be aware that it may cover several aspects besides the economic environment.

Once the idea was enlightened, the name became noteworthy among economists through a paper from Asian Development Bank Institution (KAWAI AND MORGAN, 2013). Also, a Tokyo-based journalist from Bloomberg, William Pesek, published a book - “Japanization: What the World Can Learn from Japan’s Lost Decades” (2014) -, mentioning the status of the Japanese economy along the 30 years of stagnation.

Later the nickname appeared in several papers about the Japanese economy and the phenomenon gained stylized facts to its meaning among economists.

The National Bureau of Economic Research published a paper regarding the economic characteristics of “Japanization”. A list of four topics concerning some aspects to offer a rationale for the policy practice (ITO, 2016).

The first one is the *Stagnant Growth.* A sustained period in which the real economic growth rate is consistently below the potential growth rate. This phenomenon is associated with a lack of aggregate demand, which can be explained by the ideas of Keynes (KEYNES, 1936).

The second is the *Secular Stagnation,* whose some of the main characteristics could enlighten the causes of a prolonged stagnant growth. The emphasis on the *secular* idea is that it shall happen once the aggregate demand is below the aggregate supply forced by a real interest higher than the natural real rate of interest. “Secular stagnation can be defined as the natural real rate of interest becoming negative, while the actual rate stays above the natural rate.” (ITO, 2016, p.6).

Nominal Zero Bound is the third characteristic of Japanization. The policy rate is lowered to almost zero. The Central Banks respond to stagnation lowering the policy rate in an attempt to enhance economic activity. Meanwhile, the nominal interest rate shall not be lower than zero. Therefore, this path culminates in the last maneuver a central bank can perform with conventional monetary policy. “The ZIRP [Zero Interest Rate Policy] seems to show that the conventional tool alone cannot lift the economy out of secular stagnation.” (ITO, 2016, p.7).

The final element, the fourth one, contributes to a Deflation. Even though deflation in Japan had had a lower impact since 1998 compared to the period immediately after the Great

Depression (1929), it lasted for more than a decade when price levels were measured by CPI or GDP deflator, as the analysis showed.

Ito's comprehension states that "Japanization" is a state of the economy that satisfies all of the above (1)-(4) [Characteristics mentioned above]" (ITO, 2016 p.7). A deflationary trap in which the economy happens to be in a chronic underperforming economy at the same time that there is no conventional monetary policy which could stimulate the demand.

In order to change the Japanese path which was merged into the stagnation and deflation for several years, the year of 2012 was quite an inflexion point to the expectations among the *Nippon's* economic future. Shinzo Abe was elected to be prime minister late that year. Mr. Abe was once the chief of the Japanese government, between autumn 2006 and autumn 2007, and his return to lead the politics of Japan was made possible and played an important role in reactivating the economy.

A series of fiscal and monetary policies was proposed in early 2013. The government engaged changes in fiscal policy and planned structural reforms.

Alongside the Bank of Japan's aggressive monetary easing, this policy package is known as "Abenomics." (HAUSMAN AND WIELAND, 2014).

A preliminary analysis was made in 2014 to visualize the effects of the short-term consequences of "Abenomics". The first data confirmed the end of deflation in 2013 and an increase in further inflation's expectation.

The policies caused a positive effect on consumption and showed a positive perspective in the near future of an economy that had grown 0.8% between 1993 and 2012. In this period the price levels fluctuated around negative rates from 1998.

"Abenomics" has been known as the nickname to the radical economic program of changes in the Japanese economy made by Mr. Abe[3]. The proposal, despite being presented by the government, required the Bank of Japan (BoJ) to accept the new program, since the central bank had become independent in 1998.

The economic program which boosted the Government election had been settled on three fronts: 1) Monetary expansion; 2) Fiscal stimulus and 3) Structural reforms. These three aspects began to be referred to as the "Three Arrows".

The first arrow known in Abenomics is a monetary policy unprecedentedly directed to pull up demand and force the economy away from the 15 years of deflation.

[3] Shinzo Abe, two times prime minister of Japan. From September 26, 2006, to September 2007, and from December 26, 2012 to September 16, 2020.

The prime minister, once his cabinet was formed, pressured the BoJ to agree to an inflation-targeting framework committing to adopt an inflation-target of 2% (Bank of Japan, 2013a). After spending the campaign blaming the precedent government and the current BoJ head (appointed by that government) as the responsible for the Japanese economic stagnation, Abe appointed Haruhiko Kuroda to be the new governor of the Japanese central bank, aligned to the Abenomics.

The second Abenomics arrow was flexibility to fiscal policies. A fiscal stimulus equivalent to 2% of the current GDP or around 10 trillion yen was approved by the Diet (Japanese Parliament) in early 2013, complementing the one year before supplementary budget was approved by the Diet (ITO, 2013). Although the stimulus had been dwarfed by tax increases, the consumption taxes rose from 5% to 8 % in the spring of 2014.

Ultimately, the structural reforms, the last arrow, consisted of measures to increase the Japanese potential output growth. The most subjective of the three arrows, it was proposed to lighten labor market rigidities, improve utility deregulation, and reduce protection to the agriculture. On the other hand, the aggressive monetary policy was the clearest arrow in Abenomics proposals. Although this had not been the first attempt of an unconventional monetary policy, this was by far the most aggressive (BANK OF JAPAN, 2013).

After Abenomics completed one year from their start, it was clear that the government was fighting to increase the inflation expectations with the first two arrows, as it happened a few years after the Subprime Crisis, and Europe was facing problems similar to those of Japan.

Once the unconventional policies of Abenomics gave positive results, it could give Europe and USA a monetary perception of its experience (HAUSMAN AND WIELAND, 2014).

Bernanke commented on the Hausman and Wieland preliminary analysis of Abenomics (HAUSMAN AND WIELAND, 2014) that the triumph of Abenomics was created by the government and not by BoJ.

The government showed concrete decisions to make policies reach the goals. Some of them were the possibility to change the status of independence of BoJ and the 2% inflation target. These decisions were aligned with its commitment against the rhetorical ideas that the Japanese inflation was not a monetary phenomenon.

Mishkin (2004) commented that changing expectations take some time and for it the central banks must earn credibility to achieve it.

According to what Paul Volcker experienced, when he was FED’s Central Banker, inflations expectations do not change suddenly, even though he accomplished it a few years later by doubling the Interest Rate. The great challenge was for BoJ to change inflation expectations with interest rates at zero lower bound, appointed Donald Kohn (HAUSMAN AND WIELAND, 2014).

Even though the inflation expectations rose, forecasts remained below the 2% target and, once again, it is difficult to change the expectations, and the Japanese observers doubted the effectiveness of quantitative easing and its effects on inflation and GDP output (HAUSMAN AND WIELAND, 2015).

Abenomics' consequences are yet to be totally seen. The Covid-19 pandemic and the step down of Shinzo Abe as prime minister creates doubt about whether his politics will fulfill its objectives. However, by the end of 2020 Abenomics managed the expectations, and the inflation went to the path of the target and the aggregated demand, declined the unemployment, and turned the GDP output positive implying excess demand (ITO, 2021).

Observing everything that was exposed, the subject of this paper is precisely referenced to Macroeconomics approaching economic policies, either monetary or fiscal policies, the bases of the mainstream economic policies. Aiming to comprehend whether the Abenomics improved economic activity in Japan, among the theoretical framework reviewed, it is paramount to have an overview of the Japanese economy years before the Abenomics - the years that led to Abenomics policies. Even though Abenomics performed its maneuvers explicitly, the main point is the real consequences of the policies proposed by the Japanese cabinet in late 2012.

Therefore, the choice of a selected literature makes it feasible to understand the Abenomics proposals and its consequences.

2. Assessment Regarding the Literature

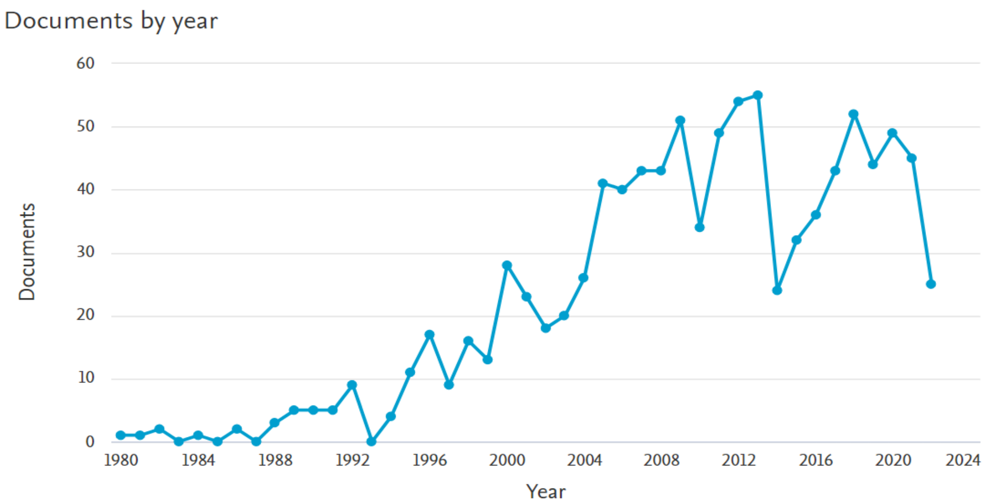
Japan´s economic development in the sixties and seventies brought a great amount of attention to its dynamism, so much so that the economy of Japan used to be a chapter in every book of macroeconomics. After its economic crisis and the rise of China, Japan’s impetus began to be overshadowed by its neighbor. Since the Japanese economy had been stagnated for the last two and a half decades, among a persistent deflation process, publications related to the Japanese economy that were once in every macroeconomics manual book as a great example of economic growth gave space to articles that meant to warn the Japanese authorities to surpass the deflation process and reinstate economic growth.

Despite its public debt beyond 200% of GDP, population shrinking and the stagnation and deflation process, Japan is still the third major economy in the world, and no other economy seems to threaten its current position.

To investigate the literature, we used the Scopus Database to identify the material that will be deeply analyzed.

According to Scopus database, after the 1997 crisis, disseminations of Japan’s economy began to rise.

Figure 1 - Publications Regarding “Japanese Economy” in Scopus by Year

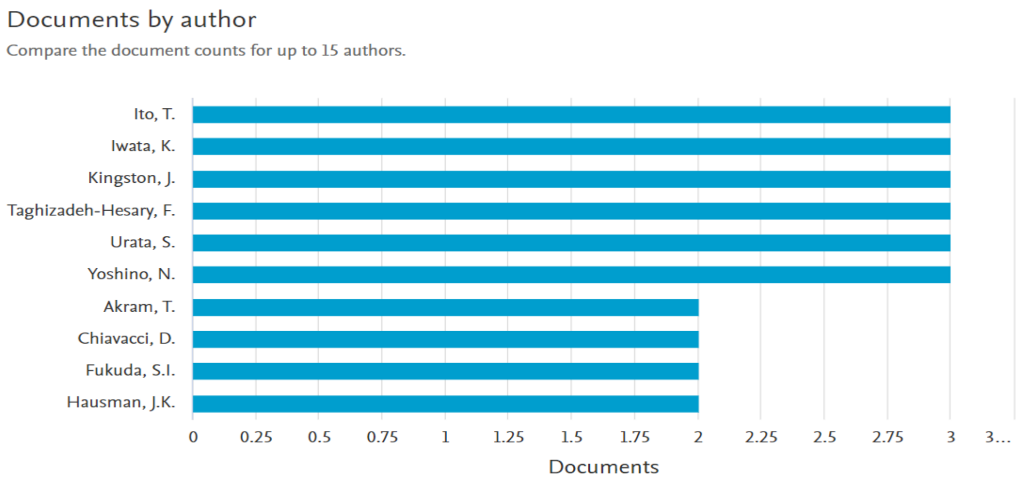


Source: Scopus 2022

Although the disseminations of the Japanese Economy had a great number of publications, as it can be observed in figure 1, documents published regarding Abenomics did not achieve the same path, mainly because the policies were promoted less than a decade ago. Therefore, reviews and recent publications are yet to recall the major impacts of Abenomics.

There are not many publications regarding Abenomics impacts, and most studies are published by the Japanese or the Americans. Most of the affiliations publishing documents of Abenomics are in The University of Tokyo and Keio University. The authors Takatoshi Ito and J. K. Hausman became a great inspiration to write about this subject, alongside a great opportunity to acquire knowledge of Japan's economic status nowadays.

Figure 2 – Publications regarding "Abenomics" as Subject in the Scopus by Year

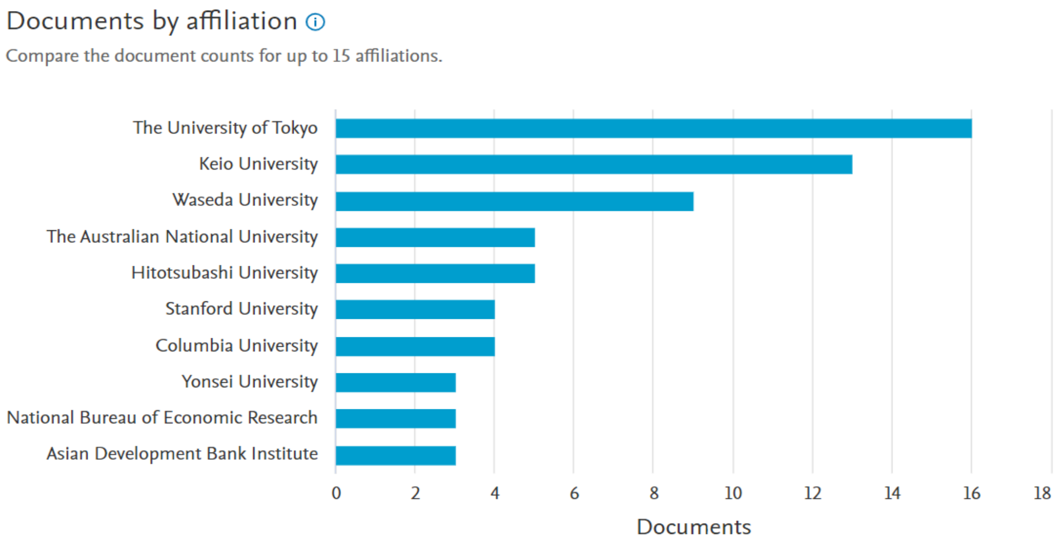


Source: Scopus 2022

The figure above presents a horizontal bar chart with the authors who have published more than two documents regarding "Abenomics" and its assessment. Takatoshi Ito displays among the top publishers regarding the policies of the former PM Shinzo Abe. Joshua K Hausman figures among the non-Japanese publishers that writes the most to the academy regarding "Abenomics".

The figure 3 shows a horizontal bar chart the institutions that published more than two documents regarding the "Abenomics" policies. University of Tokyo, Keio University and Waseda University are the institutions that have published the greatest number of documents. The Australian National University, Stanford University, Columbia University and Yonsei University are the universities outside Japan that contributed the most with articles about the "Abenomics" in the academy.

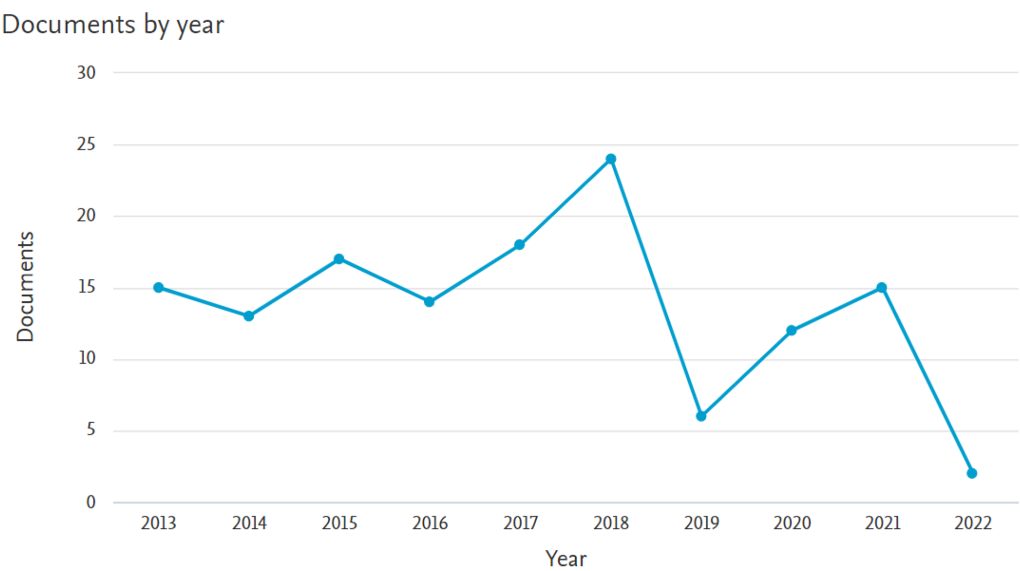
Figure 3 – Published Documents Regarding "Abenomics" by Institution– Top 15



Source: Scopus 2022

Figure 4 presents a historical line chart containing the evolution of publications year by year regarding "Abenomics" subject. Since the first complete year after the "Abenomics" more than 10 documents have been published per year, except for the year of 2019 that was only higher than 5.

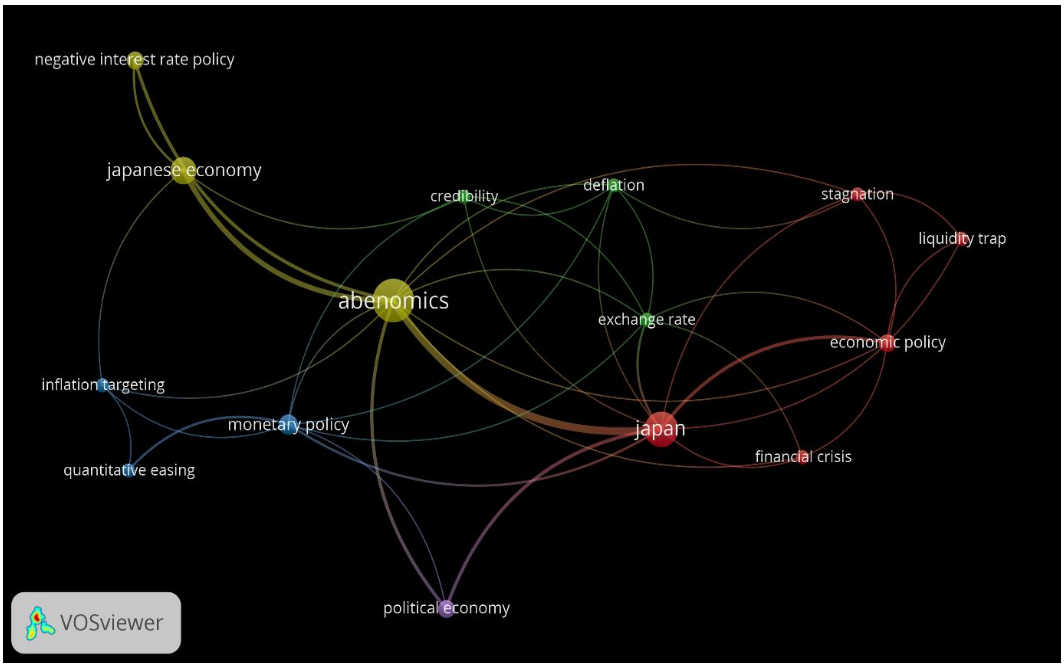
Figure 4 – Published Documents Regarding "Abenomics" by year – Top 15



Source: Scopus 2022

The figure 5 displays a word map containing the keywords regarding the "Abenomics" computed by an algorithm via VOSViewer Software combining the documents about "Abenomics" from the Scopus databases.

Figure 5 – Keywords Map



Source: Author's Elaboration assisted by VOSViewer software 2022 using Scopus data

Table 1 - Summary

AUTHOR	ARTICLE	OBJECTIVE	CONCLUSION
(SHIBATA, 2017)	Re-packaging old policies? 'Abenomics' and the lack of an alternative growth model for Japan's political economy.	This article intends to evaluate the outputs promoted by the Abenomics policies, its goals, achievements, and mistakes.	The controversial arrows contributed to shift up the economy in the short-middle term, however, did not solve the weak demand and lack of private consumption problem nor the long-term solid economic growth.

AUTHOR	ARTICLE	OBJECTIVE	CONCLUSION
(ITO, 2016)	JAPANIZATION: IS IT ENDEMIC OR EPIDEMIC?	The article's objective is to present a definition comparing the causes and consequences of the current Japanese economic scenario called "Japanization" and comparing it to the UK, the US, and the Euro Zone.	Japanization occurred because of large financial shocks combined with a particular set of policies. If it is important to avoid Japanization, there are sets of policies toward the objective. So far, the US and the UK seem to have escaped Japanization. As of this writing, the Euro Zone economy seems to be still at risk.
(ITO, 2021)	An Assessment of Abenomics: Evolution and Achievements.	This article tries to evaluate the performance and consequences of the two first arrows of Abenomics policies.	Ito's paper affirms that the first two arrows managed to stimulate de aggregated demand, even though less than expected. For the third arrow, it was not completely executed, keeping the supply standing still.
(MIYAZAKI, 2019)	A ECONOMIA POLÍTICA DA POLÍTICA COMERCIAL JAPONESA: DAS PROPOSTAS DE INTEGRAÇÃO ECONÔMICA AO TRATADO DE PARCERIA DO PACÍFICO (TPP).	This paper evaluates the Japanese commercial policies regarding the Transpacific Partnership Agreement and the Japanese inflexible points to protect the national agriculture while the Abenomics third arrow tries to promote a liberalization in the domestic market.	Even though Japan was the latest nation to join the TPP discussion, once the USA stepped out, Japan became the leader of the negotiation, in an attempt to promote its economic growth and enforce its economic dominance in the region in the face of the Chinese growing dominance.

AUTHOR	ARTICLE	OBJECTIVE	CONCLUSION
(WIELAND AND HAUSMAN, 2014)	Abenomics: Preliminary Analysis and Outlook	The objective of this paper is to provide a preliminary evaluation on the first year of the Abenomics policies implemented in Japan, focusing on the first two arrows, aiming to increase inflation and economic growth.	Abenomics, and expansionary monetary policy, continued to weaken the yen and raise stock prices. It also continued to generate positive inflation, though neither actual nor expected inflation is yet 2 percent. The real effects of Abenomics have been modest.
(WIELAND AND HAUSMAN, 2015)	Overcoming the Lost Decades? Abenomics after Three Years	This paper evaluates Abenomics consequences three years after its beginning. The performance regarding increasing aggregated demand, inflation expectations, reduction of the output gap and economic growth, considering what was written in 2014.	Focusing on the first two arrows, since the third one was not implemented by the time this paper was released, the Abenomics effects were smaller than they were expected to be. Since 2013 the growth forecasts have declined and the inflation expectation has gone up just a little, far away from the 2% target from BoJ.
(DE MICHELIS AND IACOLIELLO, 2016)	Raising an Inflation Target: The Japanese Experience with Abenomics	This paper objective is to comprehend the effects of the increase of inflation target during a liquidity trap assessing the policies brought by the Japanese government called Abenomics.	To succeed achieving the inflation target, the inflation expectations among the agents must increase. The main point observed by this paper is that credibility by the monetary authority is paramount to reach the objective, assessing the steps the authorities are taking to determine the inflation target.

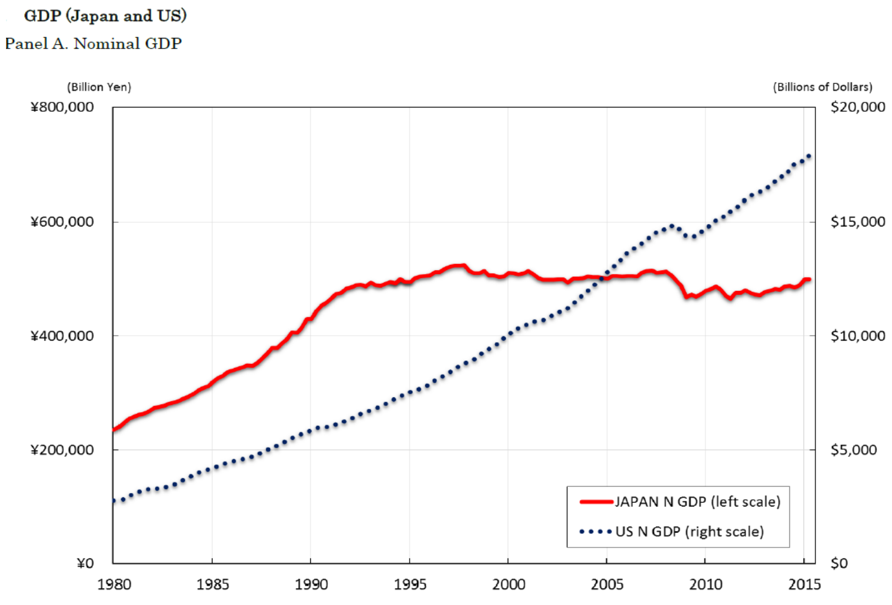
AUTHOR	ARTICLE	OBJECTIVE	CONCLUSION
(ANAND et al, 2019)	Achieving the Bank of Japan's Inflation Target	This paper assesses via scenarios made by FPSA (Forecasting and Policy Analysis System) the likelihood of Japan achieving its 2% inflation target and evaluates why it is a hard assessment.	The paper analyzed that only the monetary policy is not sufficient to boost aggregated demand and generate price pressure having the output gap. Coordination between policies packages and credibility on the monetary authority are needed to increase the likelihood of reaching the inflation target.
(FUKUDA, 2015)	Abenomics: Why was it so successful in changing market expectations?	The purpose of this paper is to investigate why the markets reacted to the new regime so favorably. Unlike orthodox arguments, we focus on asymmetric behavior between local and foreign investors after December 2012.	Abenomics had a significant effect only on nighttime changes even if they were revealed in daytime. Noting that foreign investors tend to trade in Japan nighttime, it suggests that the dramatic market responses under Abenomics happened only in time zones when foreign investors were active. Overconfidence among foreign investors and pessimistic views among local investors may explain the asymmetry. Although we need further data and evidence, it will be an important research agenda to see why foreign investors reacted to Abenomics so favorably.
(SU et al, 2018)	TOO MUCH OR LESS? MONEY SUPPLY IN JAPAN	This paper objective is to assesses the efficiency regarding the Japanese monetary policies via Quantitative Easing	By using the recursive unit root tests, the paper concluded that the Japanese economy do not possess excessive liquidity nor the potential to produce severe inflation. Nevertheless, there is no monetary bubble, and it is still possible to stimulate the economy via increasing the money supply.

3. Abenomics at a Glance

Japan has been in the vanguard of the macroeconomics challenges among the developed countries. Since the end of the 1990s the western country is struggling to return to the economic growth path. The Japanese economic case is known for the "two lost decades", from 1992 to 2012. The GDP of the period remined stagnated and from 1998 to 2012 the country fell into a deflationary status. The conventional monetary policy, according to the neo classical theory to reduce economic activity and inflation in the beginning of the 1990 by increasing the interest rate, turned to the unconventional monetary policy at the end of the 1990s, just after the bank crisis in Japan (1997 and 1998) erupted and Japan began the ZIRP (Zero Interest Rate Policy), bringing its interest rate to zero to stimulate the aggregated demand. (ITO, 2016).

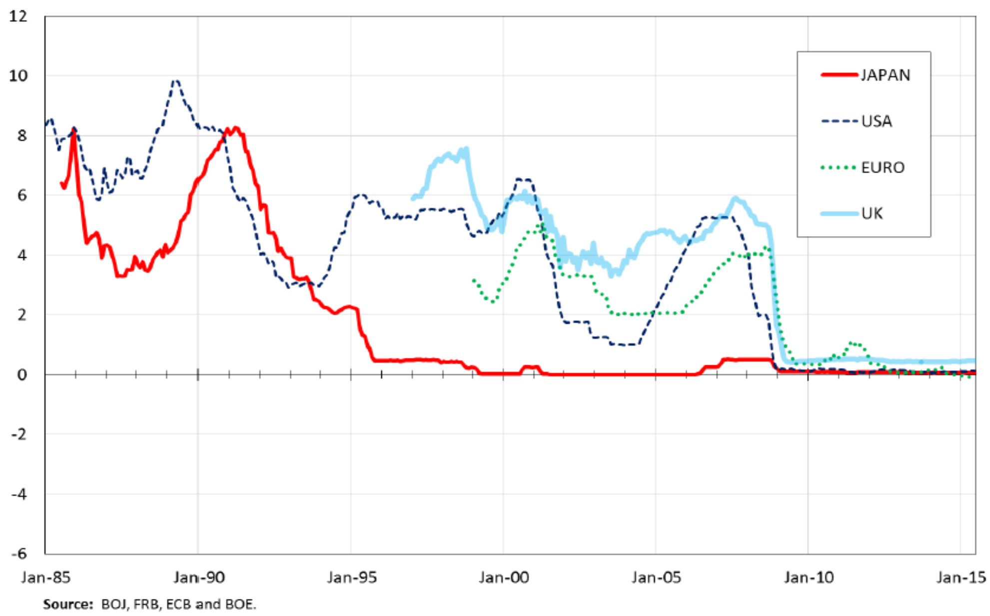
Since the characteristics appeared all together in Japan and created a unique scenario for the macroeconomics analysis, Takatoshi Ito simplified it calling this phenomenon "Japanization". Via a quantitative and qualitative analysis from data obtained from Bank of Japan (BoJ), Bank of England (BoE), Federal Reserve (FED) and European Central Bank (ECB), he defined exactly what Japanization is in four main characteristics and compared with other developed countries analyzing whether one of them could potentially be "turning Japanese" developing the characteristics to face Japanization.

Figure 6 - Japan and US Nominal GDP



Source: (ITO, Takatoshi. Japanization Is It Endemic or Epidemic, 2016)

Figure 7 - Nominal Short-term Interest Rate (1985-2015. US, UK, Japan and Euro Zone)



Source: (ITO, Takatoshi. Japanization Is It Endemic or Epidemic, 2016)

The Bank Crisis from 1997-1998 in Japan, promoted by the burst of the asset bubble, shrank the economic activities, impacting the aggregated demand and supply. As consequences, the economic growth remained below the potential growth culminating in stagnant growth, the first definer of “Japanization”.

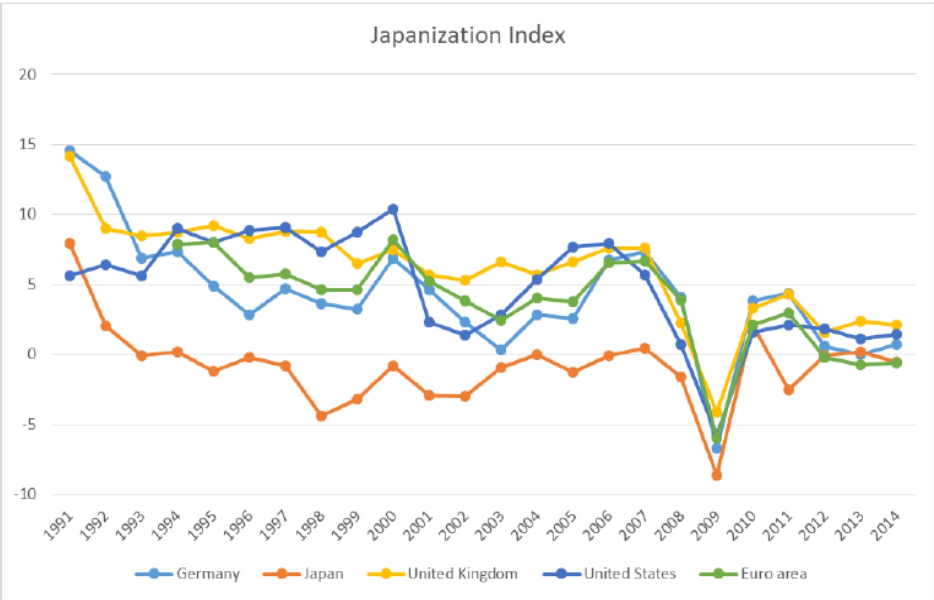
From 1992 the Japan economy became stagnated. Beyond the stagnant growth, the aggregated demand was below the aggregated supply because the real interest rate was high. Even though the nominal interest rate was Zero, the country was facing a deflation scenario and the natural real rate of interest was below the actual one. The agents did not have any reason to change their expectations, simply because the real interest rate would be continuing to rise. Therefore, the stagnation advanced through time, becoming the Secular Stagnation, the second definer of “Japanization”.

The third main topic to determine “Japanization” is the Zero Interest Rate Policy (ZIRP), in which the central banks define the nominal interest rate at or near zero, executing the ultimate conventional monetary policy tool in terms of easing interest rates. Ito emphasizes that Japan was the vanguard on ZIRP back in the 1990s, once the G7 countries would implement it only in 2008 after the Subprime Crisis.

Deflation is the last item to define the “Japanization” status. All these characteristics together promote a continuously underperforming economy and chronic deflation, which according to Ito there is no conventional monetary policy that can stimulate the demand and change the inflation expectations from the agents.

Ito in his paper from 2016 "Japanization is it endemic or epidemic" showed what was called the "Japanization Index". A formula that calculates the sum of the GDP gap, inflation rate and the nominal short-term interest rate. The lower the result, the nearer the country may be to the Japanization. Once the index is negative the country is in Japanization or in the deflationary trap. Ito presented the calculation to Japan, Germany, the UK, the US, and the Euro Area. Back in 2015, the Euro Area was the closest one to achieve the Japanization Status, according to the Japanization Index.

Figure 8 - Japanization Index



Source: (ITO, Takatoshi. Japanization Is It Endemic or Epidemic, 2016)

Takatoshi Ito concludes that the Japanization happens after several financial shocks and a particular set of policies. The bank crisis, the Subprime crisis and the Tohoku Tsunami and Earthquake, alongside the lack of coordination between policies drove Japan to remain in the stagnation status. It was also noted that after 2008 until 2015 Japan, the Euro Area, the US, and the UK remained with the ZIRP and kept reducing the Japanization Index. Therefore, the conventional monetary policy that took place in the advanced world was not able to stimulate the economy to step out of the stagnation.

Ito sees the Abenomics as the set of policies that can in fact push the Japanese economy back to the economic growth path again, since the conventional monetary policies were not able to lift the economy out of the secular stagnation by themselves. The unconventional policies or neo-Keynesian policies to stimulate demand called the Quantitative and Qualitative Easing and the inflation target defined, alongside the structural reforms promoted by Shinzo Abe, should stimulate aggregated demand and supply sides.

4. Assessments of Abenomics

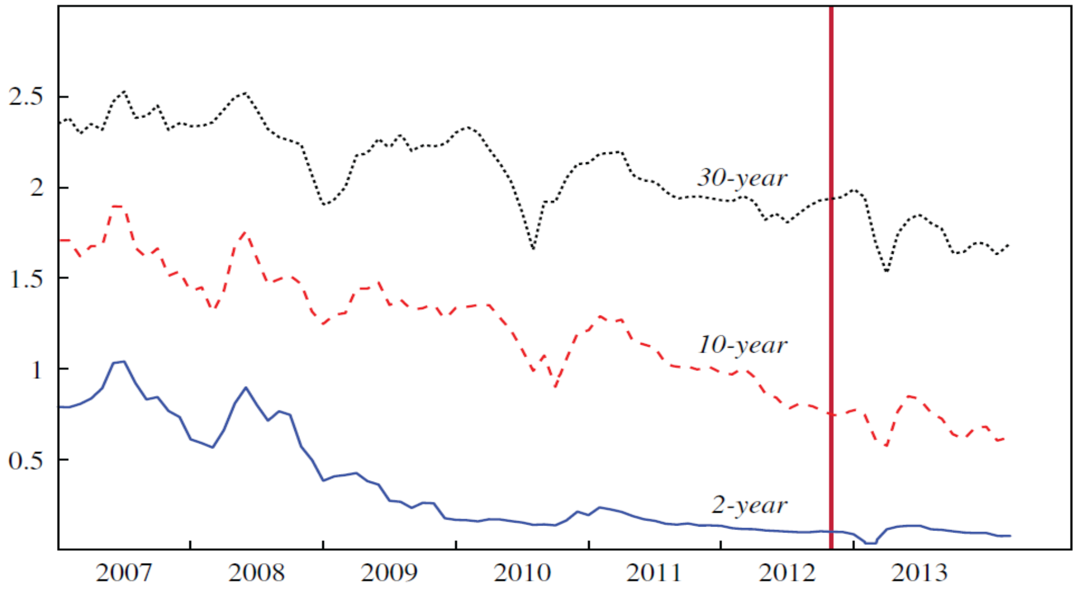
Shinzo Abe was elected Prime Minister (PM) in December 2012 promising an aggressive change to the economic scenario in Japan. The election was based on measures the cabinet would pursue to reinstate the economic growth and the end of deflation. It was called the “three arrows” of Abenomics.

The first arrow is a form of quantitative and qualitative easing (QQE). The BoJ release in January 2013 introduced the “Price Stability” Target and the “Open-Ended Asset Purchasing Method”. The monetary authority pushed by the government set a price stability target at 2 percent annual of the consumer price index (CPI). In order to achieve the target set, the bank decided to thrive the monetary easing by: (i) buying a certain amount of financial assets every month without an end date in a way that the monetary base should increase up to 60 trillion yen per year; (ii) increase the annual purchase of Japanese Government Bonds up to 50 trillion yen intending to decline the interest rates across the yield curve; and (iii) increase the purchase of ETFs to an annual pace of 1 trillion yen and Japan real estate investments trusts (J-REITs) to an annual pace of 30 billion yen to lower the risk premia of the assets prices. (BoJ, 2013a and b). The forward guidance of the BoJ was that the bank would continue with the qualitative and quantitative easing for as long as needed to achieve the two percent inflation target.

By the spring of 2014 Joshua K. Hausman and Johannes F. Wieland published what was considered the first assessment of Abenomics, even though it was a preliminary analysis, called “Abenomics: Preliminary Analysis and Outlook”. As it was published in the early 2014, the data evaluate the impact of the Abenomics within its first year, analyzing data of interest rate, inflation, financial market indexes, output, its expectations and forecasts. The paper’s main contribution presents the reactions provoked by the beginning of Abenomics.

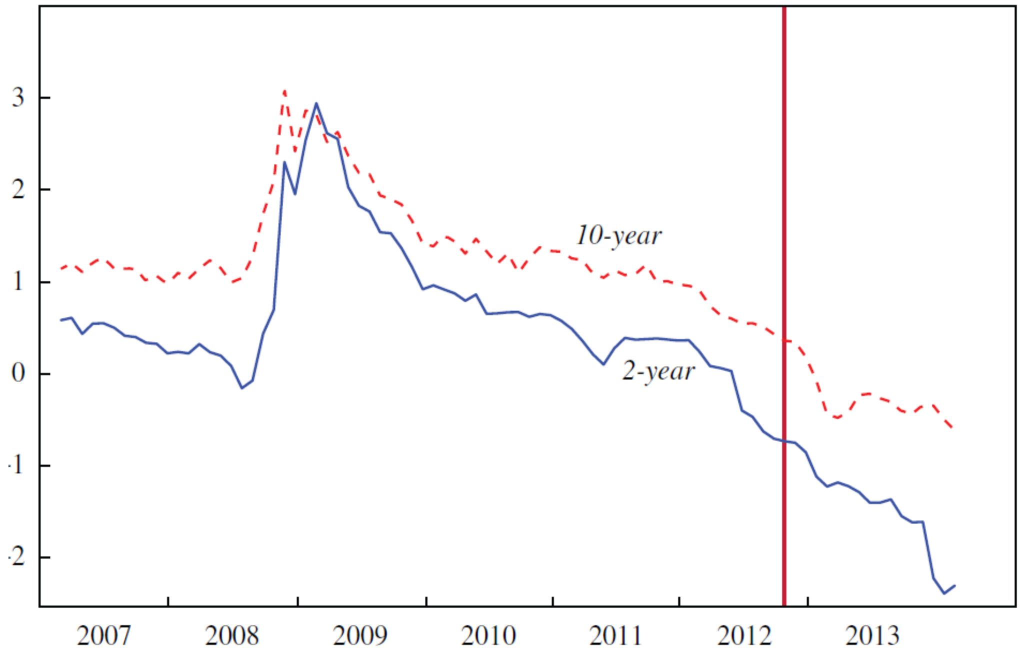
The measures taken by Abenomics impact directly the Financial Markets perceptions and its expectations. The JGB purchase announced by the BoJ in 2013 pressed their yields downwards. Although the two-years government bond suffered a little change, the long-term yields, those of 10-years and 30-years yield from 2012 to 2014, had a significant fall. The 10-years bond dropped 21 basis points.

Figure 9 - Japanese Government Bond Yield – Nominal Yields Percent



Source: (WIELAND AND HAUSMANN, Abenomics Preliminary Analysis and Outlook, 2014).[4]

Figure 10 - Japanese Real Bonds Yield in percent



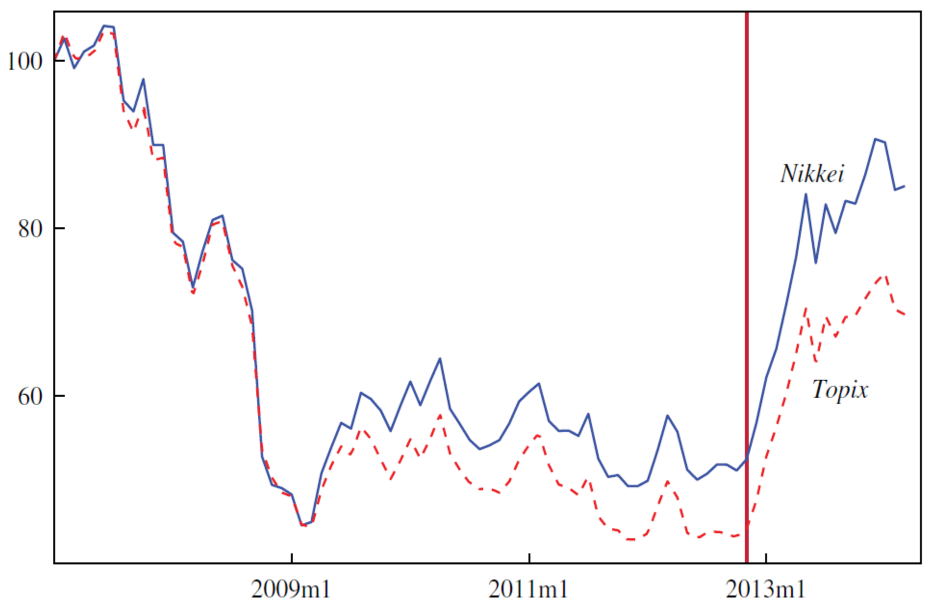
Source:(WIELAND AND HAUSMANN, Abenomics Preliminary Analysis and Outlook, 2014).[5]

Following the fall of the JGB yields, the inflation expectation measured by the interest rate of parity grew from 0,8 percent in late 2012 to 1,9 percent in early 2014. The authors

[4] Note: the vertical red line begins in November 2012, period of the Abenomics beginning.
[5] Note: the vertical red line begins in November 2012, period of the Abenomics beginning.

confirmed their primary expectations: that despite the growth of the long-term inflation expectations it only grew 1 percentage point. Alongside the low nominal interest rate and rise of expected inflation, the quantitative easing moved the exchange rate, depreciating the yen against the dollar. Between January 2012 and October 2012, the average exchange rate was 79 yen per dollar. In May 2013 the exchange rate increased to 103 yen per dollar. Along with the depreciation of the yen, the stock market reacted promptly to the announcement made by the BoJ. Looking through the same period of the exchange rate showed above, the Nikkei 225 (Japanese stock market index) rose 65 percent and the Topix (index of the first section of the Japanese companies from the Tokyo exchange market) rose 63 percent.

Figure 11 - Japanese Stock Market. Index (January 2007 = 100)



Source:(WIELAND AND HAUSMANN, Abenomics Preliminary Analysis and Outlook, 2014).[6]

Despite all the changes that happened in the very beginning of Abenomics, the comment on credibility of the Bank of Japan was jeopardized by the former policies that kept Japan stagnated for a long time. In early 1999 the BoJ started the ZIRP and stated in their forward guidance that the policy should remain the same until deflation was turned around. However, in the middle 2000 the interest rate was elevated to 0,25%, and in the same year the inflation dropped 0,7 percent. Back in 2001, Japan began the QE (Quantitative Easing) policy, and the forward guidance was to end the program once the monetary authority achieved a positive rate

[6] Note: the vertical red line begins in November 2012, period of the Abenomics beginning.

for inflation. By the time it happened, in 2006, they ended the QE and 12 months from March 2006 the CPI excluding fresh foods dropped by 0,3 percent. Wieland and Hausmann brought to their paper a quotation made by Joseph Gagnon in the Wall Street journal that the BoJ used to support the politicians' actions, but they did nothing. In May 2013 the governor of the BoJ resigned and even though the new governor, Mr. Kuroda[7], was well accepted by the market, it did not change the confidence on the institution. Furthermore, beyond the BoJ itself, the demography and pension system jeopardized the credibility of the institution. Since the Japanese pensions are indexed to CPI and the indexation of a negative reading does not occur at the same time it would if the CPI was positive, there are real gains for having bank deposits. Half of the Japanese population keeps its financial wealth in bank deposits.

Regarding the inflation, it was noticed that the CPI (Customer Price Index) for Japan rose after March 2013. From the election of PM Abe to the end of 2013, the CPI rose 1,6 percent. Even though the Abenomics reverted the deflation scenario, most of the inflation process was due to the yen depreciation. Since the depreciation will have a temporary impact on the CPI for the adjustments on the relative prices that are going to balance, the inflation expectations to change the inflation path are expected to be driven mostly by the domestic market. Wieland and Hausman assess the domestic factor to pressure prices, the change in credibility of BoJ and real wages increase, the policy expected for the third arrow of Abenomics. The same ideas are brought by Saori Shibata (SHIBATA, 2017) and Shin-ichi Fukuda (FUKUDA, 2015), which will be further discussed. Since a tax consumption hike was in sight in 2014 the forecasters expectations changed, causing the inflation expectation to plunge and by the beginning of 2014 the overall CPI and core CPI (CPI without energy and fresh foods prices) fell, leaving the credibility of the BoJ to contain the inflation.

Forecasts published in the World Economic Outlook from IMF (International Monetary Fund) and from OCED (Organization for Economic Co-operation and Development) estimated that the Japan output gap was -0,9 percent and 1,1 percent respectively. Right after the Abenomics engaged, the GDP grew in a better performance than it had in 2012. The economy grew 1,5 percent in 2013. However, analyzing the performance in a quarterly basis, there's a negative trend. The most notable difference is the net exports. The exports contribution to the real GDP growth that was 2,4 percentage points, fell to 0,2 percentage points, from the first to the last quarter of 2013, in annual basis. In opposite direction, the imports contribution fell from

[7] Haruhiko Kuroda is the current BoJ governor. He was the president of the Asian Development Bank. Kuroda also was the deputy minister of Finance for International Affairs and General Director of the International Bureau.

-0,7 percentage point to -2,4 respectively. Such movement, according to Hausman and Wieland, happened because the Japanese exports are price to market. They are set by the exporters in foreign currency, which means a change in the exchange rate shall not contribute to a short-term change in the prices of the exports. The authors affirms that the Japanese export quantities are inelastic to changes in exchange rate for the kind of products exported.

Considering what was discussed by the authors above, they conclude that this preliminary analysis showed a small impact of the new monetary regime in GDP growth and to close the output gap. The deflation problem will only be addressed with combined monetary and fiscal policies that can change the inflation expectations, and for this to happen the BoJ credibility must be restored. The consumption tax implemented in 2014 will have unexpected results in the private consumption and will impact on the aggregated demand somehow. At last, Wieland and Hausmann conclude that structural reforms need to be placed for a long-term growth, meaning the third arrow of Abenomics must be the one to have the largest effects. And also, that all the changes promoted, whether successful or not, are the first experience of this kind and may change the way countries face the ZIRP once they are caught up in a liquidity trap.

4.1 Immediate impacts of Abenomics

After the paper published in 2014 assessing the Abenomics preliminary achievements, Joshua Hausman and Johannes Wieland repeated the assessment in late 2015 evaluating the Abenomics policies three years later, called “Overcoming the Lost Decades? Abenomics after Three Years.” (HAUSMAN; WIELAND, 2015).

Maintaining the faithfulness in the forward guidance of 2013, the BoJ expanded the monetary base from 25 percent of the GDP in the last quarter of 2012 to 57 percent of the GDP in the first quarter of 2015. At the same time, the bank bought 127 trillion yen of JGB, a quarter of the GDP.

In October 2014, BoJ expanded the QQE to 80 trillion yen per year in increasing monetary base, instead of the 60 to 70 trillion proposed in 2013. The movement made the yen even weaker - from 102 per dollar in March 2014 to 123 yen per dollar in August 2015. The stock market reacted promptly and the Topix index that had risen 62 percent from late 2013 to early 2014, rose another 36 percent from March 2014 to August 2015.

Despite the 3-percentage-point increase in tax consumption in April 2014 (5% to 8%), the CPI advanced in the positive rate. Even though it has not achieved the BoJ's 2 percent target, the overall CPI rose 0,2 percent, while the core CPI (CPI excluding fresh food and energy) rose 0,6 percent. The firm inflation measured by the BoJ survey showed that inflation expectations for 1 and 10-years was below the target. One of the points brought by the authors to show the lack of response to the inflation expectations is the nominal wage growth, the main cause and effect of inflation. Since the beginning of Abenomics there have been no significant increase in incomes. Therefore, with the rise of inflation, the real earnings have declined. It happened due to the increased participation of lower-paid part-time employees, which pulled down average earnings even for the full-time workers. The inflation expectation among firms regarding their own products went below the expected. The companies in June 2015 told they were expecting to raise their products prices in 0,9 percent to the next year, reiterating the reluctance of the firms to increase nominal wage.

From 2012 to 2013 the real GDP grew 2,3 percent while from the last quarter of 2012 to the second quarter of 2015 the real GDP grew 2,2 percent. From the time Abenomics began until the second quarter of 2015 the Japanese population fell 0,5 percent. While the GDP grew 2,2 percent from the last quarter of 2014 to the second quarter of 2015, the GDP per capita grew 2,7 percent, indicating that the economy is growing far less than it was expected. If the GDP was a proud achievement, the consumption and net exports were quite disappointing. The consumption in the second quarter of 2015 was 0,6 percent lower than in the last quarter of 2012, and the exports were outperformed by imports.

Wieland and Hausmann reiterates the lack of credibility among the observers to the effectiveness of the QE policy, based on what was said a year ago (WIELAND AND HAUSMAN, 2014). The agents either cast doubts on the effectiveness of the QE or they doubt the willingness of the politicians to keep the QE.

The authors concluded that despite the growing impacts on interest rate, and the fact that inflation expectation and real exchange rate happened in the direction they were expected to go, the intensity was far less than ideal. Therefore, the real impacts of the first two arrows were small. Since the third arrow is the one focused on structural reforms, it is the best chance to have a great impact in the long-term economic growth in Japan. The Transpacific Partnership may be the "great escape" from the slow growth that had been seen until 2015, as it needs the liberalization of the agricultural sector in Japan, which can reduce the food prices.

Based on Wieland and Hausman's point of view, Andrea De Michelis and Matteo Iacoviello, from the Board of Governors of the Federal Reserve system, published a paper regarding the Japanese case study about how the country managed the inflation target (MICHELIS & IACOVIELLO, 2016). The paper called “Raising an Inflation Target: The Japanese Experience with Abenomics” presents through the Vector Autoregression (VAR) the estimated effects of inflation target shock alongside with the new-Keynesian model with inertial inflation behavior and imperfect credibility, the Dynamic Stochastic General Equilibrium (DSGE).

The authors argue that the BoJ needed to be clearer in their forward guidance to increase its credibility as the institution must be facing issues regarding credibility, since it has been fighting deflation for a long-time.

The VAR estimative was conceived with a formula that has a 5-variable vector error correction model with core inflation, bank’s lending, interest rate, real exchange rate, GDP, and real oil prices, within a period from 1974 to 2015, divided into two periods, 1974 to 1993 and 1994 to 2015. The division was decided so that the second sample could be analyzed within a period of core inflation below 1 percent.

An inflation shock of two percentage points was tested on both samples. In the first one, from 1974 to 1993, the inflation shock provoked a rise in the real interest rate, a real appreciation and a small rise of the GDP. Meanwhile, in the sample with data from 1994 to 2015, the shock by the inflation promotes the real exchange rate to depreciate since the interest rate is near to zero. The GDP here is boosted more significantly than in the first sample.

With the DSGE for open economies, the authors model showed that with the ZIRP the GDP should grow 3 percent above the baseline once the two percent target inflation is achieved. Therefore, once the economy is in liquidity trap, the inflation target shock shall significantly increase the output for completely credibility of the agent. However, once the observer is under imperfect credibility, the inflation target shock does not achieve the same impact on the output.

The authors concluded with a remarkable qualitative impression regarding the inflation target. The model presents the difficulty in guiding inflation expectations once the agents faced asymmetrical knowledge regarding the central bank’s direction and the authors reached the conclusion that credibility of the central bank is given and exogenous. Therefore, it is presented that policymakers and central bankers are constantly confronted with credibility, and the lack of it can jeopardize the effectiveness of the policies.

On the other hand, while the Abenomics failed to change the inflation expectations, the foreign investor changed their Japanese market expectations quite quickly. (FUKUDA, 2015). Analyzing data from the Japanese stock market, especially the operations data from the NIKKEI 225, Fukuda showed that after any news regarding Abenomics, the daytime analysis of the

Japanese stock market showed significant movements the night before, when the eastern market was open, and investors were trading., revealing that the foreign investor saw optimistic opportunities in the Japanese market.

4.2 Critics to Abenomics

Saori Shibata wrote in 2017 several critics to the Abenomics policies, questioning if they were not the revival of policies that had already been taken. (SHIBATA, 2017). Differently from those who have written about Abenomics before her, she was the most scathing critic of the policies, affirming that Abenomics represented a hazard to the economic future of Japan, in the paper “Re-packaging old policies? ‘Abenomics’ and the lack of an alternative growth model for Japan's political economy”. She gathered socio-economic data from the Ministry of Health, Labour and Welfare, from the Cabinet Office, OECD, and union trades to show the negative impacts of the Abenomics compared to other policies taken before.

The first criticism is addressed to the first arrow, the Bold Monetary Policy, regarding the decline in the wage. It is shown that regular workers had a raise in their income, while the non-regular workers had their wages diminished. The regular ones had an increase of 0,6 percent in May 2015, whereas the non-regular ones had a 0,7 percent drop. There was no expansion in the long-term jobs, while the short-term increased during the Abenomics period. The investment rate in the fiscal year of 2014 stood between -0,4 and 0 percent. It is also noted that although the private investment increased 2,7 percent within some sectors, such as automotive, the depreciation pressured the costs of imports and reduced the appetite for consumption.

Saori says that PM ABE introduced a Keynesian tool to stimulate the aggregated demand, and therefore enhance inflation expectations, growth and spending. Nevertheless, what was seen was a highly difficult challenge to turn around the agents’ expectations, failure to achieve the inflation target and an income obstacle that perpetuated the low consumption.

The second arrow was criticized for not being completely engaged as it was promised. The government proposed an increase of 2 percent of the GDP in the supplementary budget from 2013, but it spent only 1 percent. The fiscal policy increased the debt to GDP ratio to 226 percent of the GDP in 2014.

The tax hike in consumption in April 2014 pulled off the domestic customers shrinking the consumption pressing the economic growth to the stagnation. The 3-percentage points tax hike was to be directed to be spent with pension, social insurance, and healthcare, but the negative impact jeopardized the destination.

Shibata presents Wieland and Hausman as defendants of the Abenomics, who emphasize its importance so that they can be seen as the right policies. However, she even shows a division between the Ministry of Finance, which prefers to cut spending, versus the Cabinet Office, which was determined to make the economy grow even if that meant to prejudice the fiscal consolidation.

The controversy created around the tax hike proved to be a breaking point within the government and raised doubt about the effectiveness of the policy. It was necessary to increase the government incomes, but it would reduce consumer spending. By the end of the debate, the fiscal policy that promised to be expansionary became contractionary. The increase in tax consumption and the termination of fiscal stimulus brought Japan back to recession at the end of early 2014.

The third arrow, which was meant to be focused on structural reforms, was seen as the Abenomics greatest policy. Elasticizing the labor market and working practices, opening the labor market to foreigners, and promoting the woman in the labor market was the social part of the arrow. It was also supposed to promote the reduction of corporate taxes, improve corporate governance, encourage venture capital and innovation through technology. Such reforms should open space for the liberalization in the agricultural sector, a requirement to participate in the Transpacific Partnership. In summary, the third arrow should create space for intensive sector in R&D, such as energy, healthcare, and environment, aiming to revitalize and innovate small and medium enterprises and local cities, and promote bold reforms in the regional economies.

Saori affirmed that the Keynesian remedies promoted by the first two arrows of Abenomics barely impacted the economic growth, and that the liberalization of the third one seeks to destabilize the labor market jeopardizing all three arrows' objectives.

She concludes by saying that there are three groups of commentators through the Abenomics existing literature. (i) those who highlight the unconventional demand-oriented alternative instead of the neo classical alternatives (Krugman, Posen and Hausman); (ii) the ones that agrees with the Abenomics proposals (Fukao, Katz and OECD), and (iii) the group that rose concerns about the Abenomics structural reforms that can harm the labor market (Ito, Wolf, Roberts, Yamada, and Hirano). The unequal distribution of wealth among the Japanese workers undermines the policies proposed. Thus, instead of being an alternative growth model, the neoliberal policies of Abenomics threatens the Japanese economic stability.

Regarding the third arrow, the structural reforms to be promoted in the liberalization in the agricultural industries should be the great policy to change the economic path in Japan, making the necessary changes in order to join the Transpacific Partnership (TPP) (Hausman & Wieland, 2015). In 2019 a thesis was published by Silvio Miyazaki regarding the proposals of economic integration of the TPP considering the Japanese trade policy. (SILVIO YOSHIRO MIZUGUCHI MIYAZAKI A Economia Política Da Política Comercial Japonesa: Das Propostas de Integração Econômica Ao Tratado de Parceria Do Pacífico (TPP), 2019).

By using Japanese commercial data regarding foreign affairs, and different types of trade agreements, mainly in the Asian pacific area, (Miyazaki, 2019), presents how Japan has been in pursue of maintaining and expanding its trade relationships across the region and shift the domestic economy, the TPP being the larger and most important trade deal within the Pacific.

Until 1997 Japan did not have its foreign trade policy driven by any special partnership agreement. Before the 1990s, the economic growth among the countries of the region was in a higher path than in other regions. Therefore, the Japanese government did not consider making that kind of agreements to assure bilateral commercial, hence demand to its production because the market forces should manage it. Right after the burst of the bank crisis in 1997, the scenario changed. The economic crisis spread throughout the region. The US did not support the countries impacted by the financial crisis, leaving this role to Japan. Thailand, Philippines, Malaysia, and South Korea received financial aid from Japan to restore its economies and Japan needed to open itself to gather partners. In the year of 2002 the first trade agreement was signed with Singapore for a special partnership agreement.

Through the recession of 2010, the Japanese government saw the TPP as an opportunity, and showed willingness to join the TPP. However, only in 2013, under PM Abe, Japan decided to join the negotiations for the agreement. According to the author, the willingness to sign these kinds of deals is that besides the trade agreements powers to shift the economy, it is a great opportunity to launch domestic structural reforms and open the protected sectors, having in sight that within an international trade deal, it is harder to reverse the domestic decisions. The rational of the Abe's government to join the TPP was that it could assist to bring the structural reforms proposed by the third arrow to Japan. These reasons led to a better comprehension of why Japan decided to lead the TPP negotiations after the US stepped out.

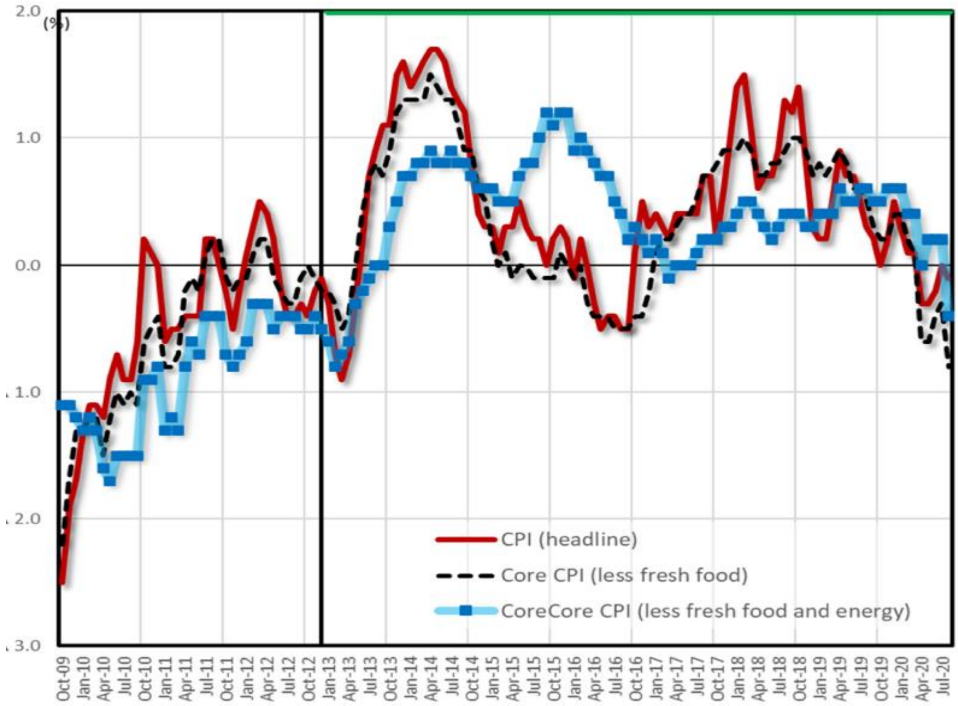
Despite all the efforts to the liberalization of the agricultural market and industry, a lobby from the producers and industrials regarding a couple of products remained untouched in the negotiations of the reduction of imports fee. Even though Japan has more than 9000 lines for import taxes, 20% of them are from the agricultural sector, and 99% of these agricultural products are in the exclusion list not to be negotiated within any trade agreement. Rice, wheat, beef, pork, dairy and sugar are called sacred products. Even though the imports fees are low for most of the products, for those called sacred products the fees are stratospheric. According to the World Bank, the rice fee was of 768,36%. Wheat seed has a fee of 206,75%. Bovine and pork offal was taxed in 739,08% and some dairy products had a fee of 705,08%. A firm indicator that these sectors are shielded by the government pressing the domestic prices of these products, since they do not have foreign competitors.

Miyazaki concludes sharing a positive point of view when compared to the one shared by (Shibata, 2017). The interest of the Japanese government in the TPP is to de facto establish the structural changes proposed by the Abenomics and, by expanding the trade agreements, amplify its economic dominance throughout the region and enhance the domestic economic dynamics, by turning the domestic producers more efficient and reducing the cost of imports. Even though there are some products that are going to be protected by the government, the government expects the trade to support the economic growth and its economic interest in the Asia Pacific region.

The latest assessment on Abenomics was the “An Assessment of Abenomics Evolution and Achievements” (Ito, 2021). The Author assess the Abenomics policies focusing in the first two arrows, since the third one was never fully implemented. Comparison along the time Abenomics was implemented of interest rates, inflation rates and expectations, exchange rates and financial market movements until 2020 were part of achieving the objective of the paper.

Despite the efforts made by the BoJ and government policies, the inflation never reached its target, even though from 2013 to 2019 it reached the positive rates most of the time.

Figure 12 - Inflation Movement from 2009 to 2020



Source: (Ito, Takatoshi, An Assessment of Abenomics Evolution and Achievements, 2021)[8]

The price levels measured by the CPI started to drop by the second half of 2016 and kept its path up to 2016. The inflation excluding fresh foods and energy fell from 1,2% in late 2015 to -0,1% in early 2017. The main explanation for the steep drop is the energy prices shock. Even though the CPI excluded energy price, it does not take into account the direct effect of the fall of the energy prices, there are indirect impacts from energy over the many consumption items. The crude oil price dropped from 100 dollars per barrel in middle of 2014 to 30 dollars per barrel in early 2016. Since the energy prices are not under BoJ’s control, the monetary policies cannot be responsible for the deflation process caused by the fall of oil prices.

In early 2016 the BoJ adopted the Negative Interest Rate Policy (NIRP), following the path of the ECB and the central banks of Sweden and Switzerland. The market reaction was to promptly lower the government bonds yield, achieving negative territory. After the announcement, the yen depreciated, and the stock prices rose. However, one week later the yen appreciated 3% and the stock prices reduced 4%.

Surveys showed that the inflation expectations that used to present a small growth until late 2014 became declining ever since. By the end of 2019 the inflation expectations on surveys were below 1%. The BoJ explained the inflation expectations follow an adaptative expectation

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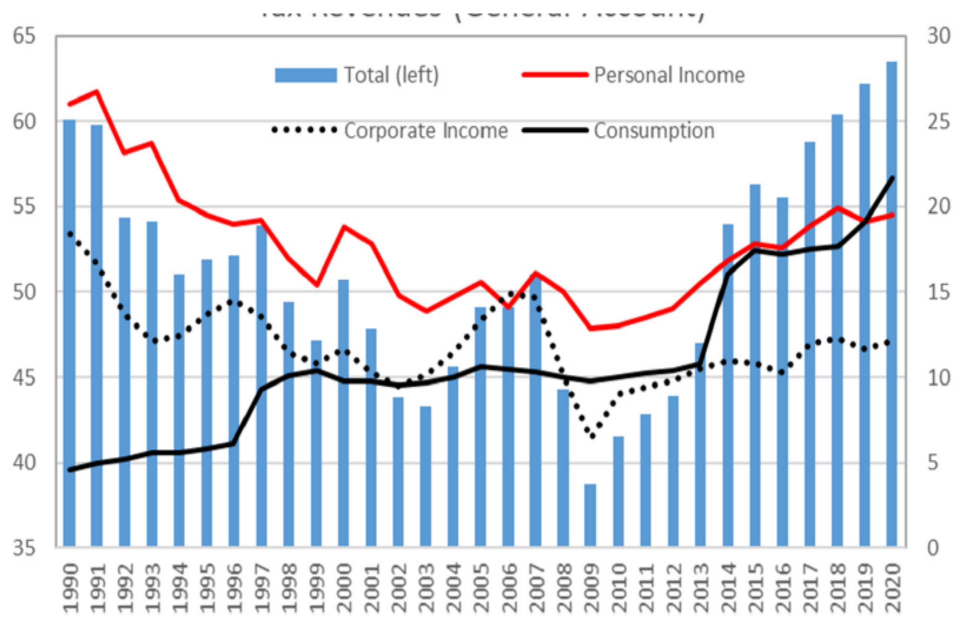
[8] Note: The thicker black vertical line presents the beginning of Abenomics

process. In order to believe that more inflation is coming, one must be seeing inflation, and since the deflation process had been pressing down Japanese prices for 20 years, changing those expectations was a great challenge. And as the BoJ attempts to bring inflation back over the 20 years of inflation failed, the bank had a credibility issue to instigate a positive inflation expectation.

Even though the inflation target was not reached along the Abenomics period assessed, Ito shows that the unconventional policies adopted by the BoJ contributed to the yen depreciation and the increase in the stock market. Therefore, the consumption, exports, and investment are expected to be stimulated.

For the second arrow, after the tax hikes over consumption, 5% to 8% in April 2014 and 8% to 10% in October 2019, despite being seen as a struggling point for the consumption, the increase in income generated was directed to reduce the deficit spent with college and kindergarten exemption for low-income families. Even though the critics of the tax hikes affirm that it jeopardized the demand stimulation, and therefore, the target inflation to be achieved, the defendants of the hikes claim that it was necessary for the debt sustainability. The hikes should automatically increase the tax revenue when the GDP grows and that worked just as planned. The consumption tax revenues from the 1990 to 2009 decreased 20 trillion yen. But from 2007 to 2013 it grew almost 8%.

Figure 13 – Japanese Tax Revenues



Source: (Ito, Takatoshi, An Assessment of Abenomics Evolution and Achievements, 2021

Even though the debt-to-GDP ratio of the Japanese government went over 250%, the second arrow managed to increase the public revenue and bring a reasonable fiscal sustainability. After several crisis forced the government to increase the public spending (Subprime crisis, Tohoku Earthquake and COVID-19 crisis), Japan keeps its commitment to a possible sustainable fiscal scenario.

Takatoshi Ito concludes the paper assessing whether the Government of Abe fulfilled its objectives compared to former PMs, and the evaluation is focused on the period until December 2019 and further in 2020, to eliminate the impact of the COVID-19 pandemic. For the inflation rate, from December 2012 to December 2019 increased 1,1%. Despite being far from the BoJ’s target, Abe managed to withdraw the deflation path. The average unemployment at the same time reached 3,1%, the lowest unemployment rate since the beginning of deflationary status, a 2,1% decline from the 4,3% in the late 2012. The increase in labor participation of women and elderly people was the key to reduce the rate. Therefore, according to Ito’s analysis, the Abenomics successfully improved the labor market conditions. The Nikkei 225 rose 13,262 points from December 2012 to December 2019, implying an annualized return greater than 12%, presenting a very much brighter performance since the last governments from 1998. The PM Abe’s approval showed he was the second most popular PM according to the NHK ratings. The economic performance, better than the previous government, contributed to the good approval rating.

Lastly, Ito remarks that Abe managed quite well the aggregated demand. The lowest unemployment rate plus the inflation growing to the target achieved the main goals of the Abenomics proposals. The response of the stock market and the GDP gap becoming positive suggested that the economy is driving to an excess demand.

Unlikely Saori forecasted in her paper (SHIBATA, 2017), Ito affirms that although the economic performance under Abenomics cannot be evaluated as an impressive performance, the macroeconomic data revealed that it managed to redirect Japan to the economic growth path. The first two arrows did succeed in their proposals to stimulate the aggregated demand, meanwhile the third arrow has not been put into practice. Consequently, it can be seen that the approval of the PM contributed to increase the credibility in the policies from the government and the BoJ and that the unconventional monetary policies like the QQE alongside with coordinated fiscal policies can change the economy expectations.

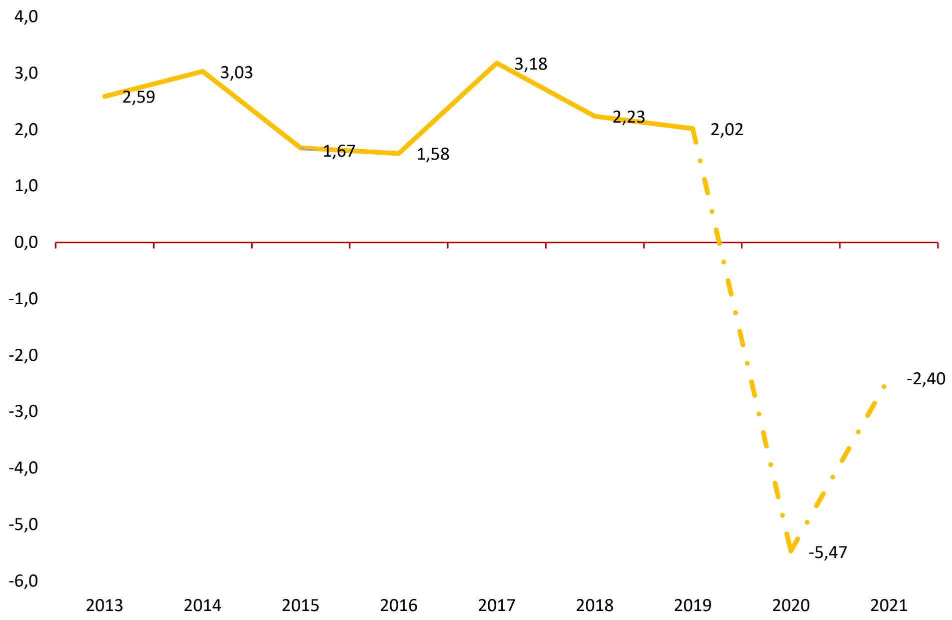
4.3 Current Japan and Abenomics' Effects

Until 2019 Japan presented a better economic shape than the one seen in 2012. Since then, year over year the status has improved, the numbers have stood far from the expectations of the proposals of Abenomics, and it has never achieved impressive numbers. However, the economy shifted to the opposite path of what it was until 2012 (ITO, 2021), and the better scenario can change observers' expectations based on what they are seeing (MICHELIS & IACOVIELLO, 2016).

From 2013 to 2019 Japan's real GDP grew 1,03%, a growth trend from the stagnation and recession observed years ago, even though in 2019 real GDP in Japan decline 0,23% compared to the previous year. During the same period the CPI was 0,9% average, reverting the deflation scenario. In 2019 unemployment achieved 2,9% - the lowest rate since 1997. At the same time, the interest rate remained negative -0,1%. The Japanization index (GDP Output Gap (OECD) + Short Term Interest Rate (BoJ) + CPI (Ministry of Internal Affairs and Communications of Japan)) had an average of 2,33%, a number higher than the observed in 2012 (-0,62%) and 2011 (-1,71%). Those macroeconomics numbers reflected the Abenomics outputs guiding the Japanese economy away from deflation process and heading to potential economic growth.

However, further in 2020, 2021 and 2022 two global scale events promoted several constraints of demand and supply: the Covid-19 pandemic and Russian-Ukrainian War. In March 2020 the Covid-19 outbreak arose disrupting the global supply chain and global demand, pressing prices across the world. The Japanese real GDP shrank 4,58%, the GDP Output calculated by OECD dropped 4,17% and deflation went back with a CPI of -1,2%.

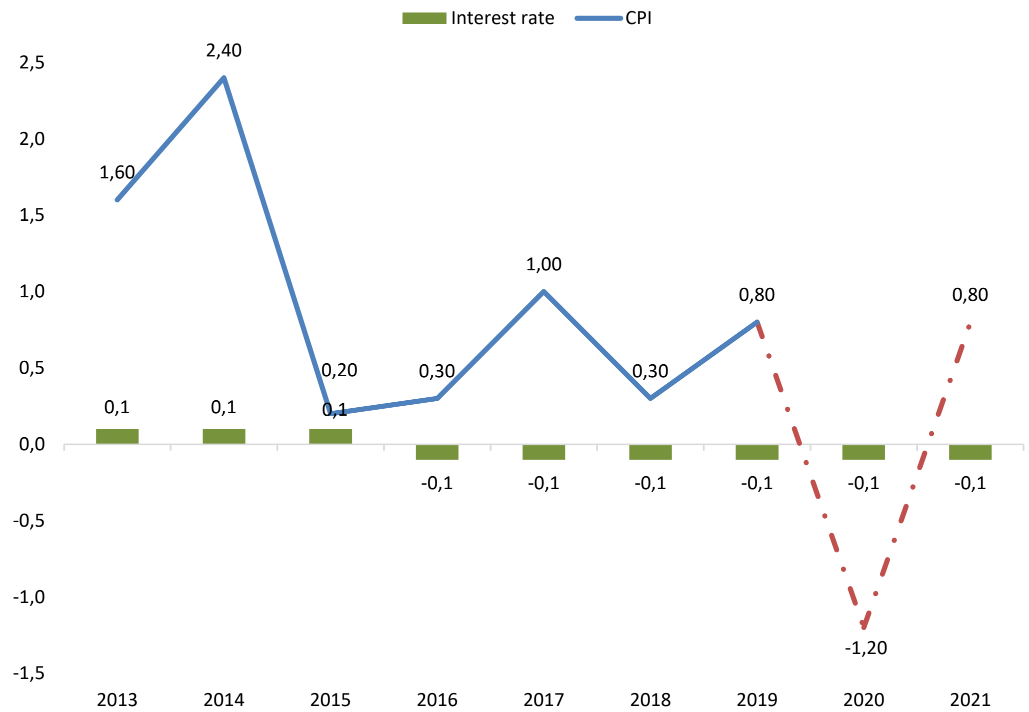
Figure 14 – Japanization Index if Japan



Source: Author's elaboration with data from Bloomberg.[9]

[9] Note 1: Japanization was calculated by the sum of GDP Output from OECD, Interest Rate and CPI.
Note 2: Below the 0 (red line) the country is Japanization.
Note 3: The dash dot line represents the Covid-19 impact.

Figure 15 - Japanese Interest Rate and CPI in percentage

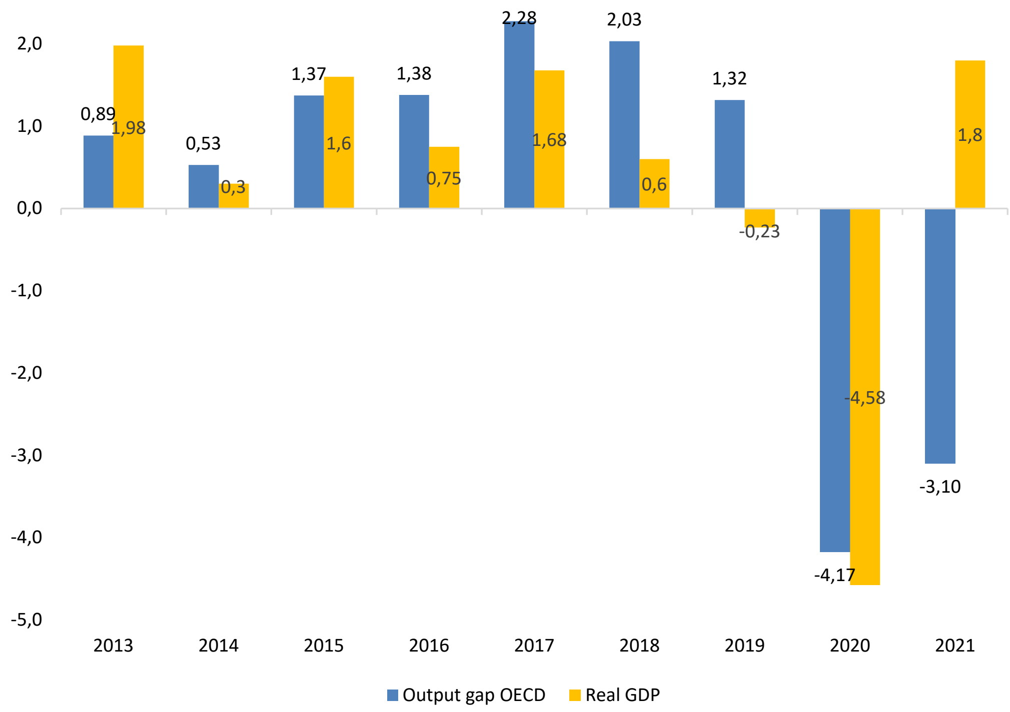


Source: Author's elaboration with data from Bloomberg.[10]

At the end of 2021, most of the damage observed in the macroeconomics data of Japan had been reversed. The real GDP grew 1,8%, despite the Output Gap being -3,10% as the global supply chain did not return to pre-pandemic levels. The interest rate had remained the same since 2016 at -0,1% and the CPI showed the inflation rate rising at 0,8%. Despite being away from the 2 percent target, the recovery from the 2020 shock brought GDP and CPI rates back to before 2020, presenting the Abenomics resilience.

[10] Note: The red dash dot line represents the Covid-19 impact.

Figure 16 – Japanese Real GDP and Output Gap (OECD)



Source: Author's elaboration with data from Bloomberg.

The Russian invasion in Ukraine on February 24, 2022 provoked another shock in international prices directly on commodities and energy sectors, pressing inflation all over the world. The 12-month CPI of April 2022 reached 12,13% in Brazil, 8,25% in USA, and 2,5% in Japan, the second time CPI reached the 2% target from the BoJ since it was proposed (2014, 2,4%). However, since the inflation was not promoted by a strong aggregated demand stimulus, but by commodities and energy pressure prices, the BoJ expected CPI to decelerate according to the Statement on Monetary Policy from June 17, 2022. Therefore, the monetary policies shall not change.

5. Conclusion

Driving the Japanese economy back to a sustainable economic growth and away from the deflation trap proved to be quite a challenge since it struggled for 30 years, being stagnated from 1992 to 2012, and wrapped in the deflation process from 1998 to 2012. With opposite results from the economic policies that came before the Abenomics, the policies proposed and implemented by Shinzo Abe's cabinet proved that despite the challenge, it was possible to reinstate dynamism to the economy, even though the results obtained were neither the ones expected by the time nor magnitude forecasted. Despite the odds analyzed, the Abenomics, mainly the first two arrows, had a reasonable performance stimulating the economy towards economic growth and stimulating the demand attempting to induce price pressures. The third arrow, although it was more subjective, did have a reasonable performance since it dropped the unemployment via liberalization of the labor market and achieved the goal of the Japanese economy to be part of the Transpacific Partnership (TPP), with a bonus of being the agreement's leader once the United States stepped out of the partnership. The importance of Abenomics was paramount for the Abe's government, and even though Shinzo Abe left the PM's chair, his policies are still in effect with Japan under Fumio Kishida leadership.

The Abenomics succeeded when faced two severe global crises, proving that the unconventional monetary policy adopted by the BoJ did manage to stimulate the Japanese economy. Nevertheless, the monetary policies face challenges regarding the credibility of the institutions as central bank and policy makers to change the observers' expectations, and once they have one in sight, they have a paramount importance for the observers' decisions.

The policies promoted by Abe may be revised since the current economic situation across the globe is facing new challenges, rebooting the supply chain from the Pandemic, and facing the consequences of the war between Russia and Ukraine. Nevertheless, the economy of Japan does not seem to be suffering the global impacts with the same intensity as other peers. Abenomics is an inflexion point regarding the Japanese economy and presents another method of dealing with macroeconomics challenges that some countries seem to be heading to a similar status that Japan has once faced, and this case shall inspire other governments to achieve a resolution.

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