

The Lost Decade: Research on the Japanese Asset Price Bubble

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Abstract. Due to the burst of Japanese asset price bubble in 1989s, Japan's economy has started a clearly great depression, specifically manifest as downturn in GDP, decline in economic activity, decrease in the general price level, and manufacturing sector in recession. The burst of bubble directly shows as expansion on credit and money supply, overheating in assets market and economic activity. This paper aims on elaborating and analyzing Japanese unique economic development history after Second World War. This paper also focuses on how the Japanese economic miracle happened and how does Japanese economic miracle came into asset price bubble. Based on those economic policies implemented by Japanese government, including zero interest rate policy (ZIRP), negative interest rate, quantitative easing (QE), qualitative quantitative easing (QQE), and the three arrows of Shinzo Abe, this paper analyzes those policies in economic direction. This paper also researches on some other potentials and secondary influences on Japanese economy, such as Japanese corporate system since 1600s, the involvement of the USA, the plaza accord, several Japanese bank's bad loans.

Keywords: Assets price bubble; economic activity; Japanese economic miracle; quantitative easing; negative interest rate.

1. Introduction

In 21 century, Japan still has to facing many financial and economic problems, including some remaining problems since 1989s. During COVID-19, a huge hit on economy of whole world, the plunge in demand in product market and capital market has resulted in the turbulence of both demand and supply side. The global economic depression led to economic crisis in many countries, especially Japan. In early April 2020, Japanese prime minister Shinzo Abe announced that Japan is facing the worst economic crisis after Second World War [1]. In April 2020, Japan's GDP was having a huge fallen trend from April to June 2020, and moreover that Japan was just increase consumption tax in October 2019. Therefore, COVID-19 was an extra heavy burden for Japan based on the economic data [2]. In 2022, the Ukraine conflict gave Japan some economic benefits by an imported inflation as a surge in price of petroleum. Japan has been mired in deflation after the financial crisis in 2008, and those policy such as QE, the zero interest rate was all aimed on giving Japan's economy inflation. However, the imported inflation only gave Japan a brief respite, not fundamentally solving problems of deflation and low vitality of Japanese economic activity.

Moreover, the global financial crisis in 2008 is a huge remaining economic problem for Japan in nowadays, the 2008 financial crisis was a substantial blow for Japanese economy which just had a brief respite after burst of bubble. The financial crisis come with bigger economic problem in Japan which can be obviously seen from some influences after the crisis such as graver deflation, decrease in amount of export which directly shows on GDP trend of Japan.

The asset price bubble in 80s-90s Japan always plays an important role as a remaining problem. The burst of bubble led Japanese economy to a long-turn economic depression directly. The asset price bubble in 80s-90s Japan (including housing bubble, stock price bubble and bond bubble) is an economic bubble which specifically manifest as continued soar in asset price and uncontrolled expansion of money supply and credit, overheat of economic activities in markets. In other words, Japan's market was having a strong over-confidence of the assets price in that special time, and that were closely connect with the excessive monetary policy at that time. The maneuver of Japanese government and ministry of finance (MOF) of Japan during the bubble maid on stimulating Japanese

economy by lowering interest rate from 5% to 2.5% in 1987. However, the results did not prove the effectiveness of the policies. Most capital and money went to housing market, bond market and stock market. That is also one reason of the overheating of economic activity in 80s-90s Japan.

This paper is arranged as follows. Section 2 introduces and analyzes the background and causes of the asset price bubble. Section 3 narrates consequences after the burst of bubble. Section 4 mainly describes what Japanese government did about those economic problems, and section 5 is about the situation of Japan in 21century, what Japan is facing and how the burst of bubble affect Japan in nowadays.

2. Cause

2.1 The Japanese Economic Miracle

Japan has a special business group system since 1600s, those corporate governance system called “zaibatsu” in Japanese, and zaibatsu were dissolved after Second World War, but in the later time “keiretsu” which is a large, modern industrial enterprise groupings was born. Those group enterprises has becoming a deeply ingrained concept among Japanese people after 100-year history, and it was effecting Japanese economy potentially. Look at the formation of the bubble in 1989s Japan from another perspective, the conception of mutual aid in the group could be one of the reason that purchase of shares between each companies in group, and this behavior led to the soaring of share market which increase the danger of the great economic depression after burst of bubble. However, those group enterprise system did give some benefits for Japan, such as economic of scale which shows as industrial enterprises consolidated and become a bigger and more efficient unit which has higher productivity [3].

After Second World War, Japan’s government budget had an unremitting rising of deficit by paying huge amount of reparation as a vanquished country, the economy of Japan was keeping in an economic downturn position. But in the latter half 20 century, due to the free market boom leaded by the UK and the USA, Japan finished restructuring economy and got a boost of GDP by plenty amount of export. Japan’s GDP went up by leaps mostly resulted from the economy of scale. Japanese export amount increase significantly after the war depending on the cheap, high quality products and high productivity. The performance of Japanese economy during this time is an economic boom, and it also called “Japanese economic miracle” in the history of Japanese economy. During the economic miracle, Japan quickly become the second-largest economy in the world, just after the United States.

2.2 Plaza Accord

In the same time, the US was having a high inflation rate because of two oil shocks. Paul Volcker, the chairman of the Fed at the time, decided to decrease the inflation by increasing interest rate. After the adjustment of interest rate, the inflation rate of the US was clearly reduced, but the exchange rate of USD raises quickly and kept the increasing trend after the increase in interest rate. When Japan’s export amount increase, the trade deficit in the United States also increase, which because of plenty import, and mostly from Japan and Germany [4].

The US wants to reduce the trade deficit and decrease the exchange rate of USD. Then, in September 22 1985, the US and the other four countries respectively are Japan, West Germany, French and the United Kingdom, concluded and signed an agreement called “plaza accord”(also known as “plaza agreement”) at the plaza hotel. Plaza accord is an agreement aimed to depreciate USD in relation to the Japanese yen, German Deutsche Mark, French franc and the British pound by intervening the currency market. USD depreciated in currency market sharply after that. After Japan signed the agreement with the USA, Japanese yen’s exchange rate kept increase which led to a huge reduction in export amount that directly shows as a decrease in Japan’s GDP. Many Japanese economists analyzed that the plaza accord cloud have some relevancy with the economic bubble in the later time.

In fact, the formation of Japan's asset price bubble was start at the time later after the plaza accord, but did not directly led to the formation of bubble. However, Japanese government and MOF of Japan decided to stimulating Japanese economy by decreasing interest rate from 5% to 2.5%. This decision was based on the situation that Japan was facing and the low inflation rate that Japan had in the time. The decision of decrease interest rate did not go well to the way that Japanese government hopes. Japanese government expected that cloud increase the investment in the manufacturing sector with lower cost of loans, but the truth is the large amount of money went to asset market such as housing. The housing price in Japan tripled between 1985 and 1991 [5]. Not only housing market, stock market was being an overgrowth trend due to the reduction in cost of loans. Many companies in different group enterprise were start getting bunch of loans and buying stock between each other. The price of Japanese stock was overvalued during this time. The reaction of those companies and Japanese consumers led to the formation of economic bubble directly. However, there is no doubt that Japan was the second-largest economy in the world, and still keep in the world's five largest economies list in nowadays.

2.3 Excessive Monetary Easing Policy

In 1989, after the uncontrolled overheating of economic activity in Japan, the overvalued housing, bond and stock price, Japanese government made a new decision that assuage overconfidence of asset market by raising interest rate from 2.5% to 6%. Because of that, Japanese asset bubble burst finally. The increase of interest rate also as an increase of cost of loans, which will decrease the basic purchasing power. After the reduction of purchasing willing, Japan has to face the worse economic problem which is one of the main consequence of the burst of bubble-the decrease of abilities of repay loans [6]. As mentioned before, because of the special constitution of Japanese group enterprise, many companies bought stock between each other by getting loans from banks. After the increasing interest rate policy, the price of many stocks plummeted which led to companies' insolvency which took bunch of loans from bank to buy stocks. The loans that taken by those companies become bad loans in the end.

3. Consequence

In 1989, the stock market in Japan got a serious crash after the increase of interest rate from 2.5% to 6%. In the following year, the housing market also began to plunge. Plunge in markets bring Japan to a serious vicious cycle. Plenty of companies that couldn't cover their debt all went bust, and many banks was on the verge of bankruptcy with a huge amount of bad loans [7]. Unemployment rate continued to rise that causing the reduction in Japan's total demand which also means a decrease of purchasing willing of Japanese citizens and companies. The downward trend directly led to a decline in product price trend which will narrow companies profit margins, causing more job cut. Moreover, Japan was having aging population problem at the same time with economic crash. This aforementioned consequences bring a recession to deflation in short run.

The cause and effect cycle mentioned above shows that Japanese economy needed help from government immediately. Japan announced some policy, including monetary policy such as decrease interest rate to fighting with deflation, increase government spending such as giving financial support to those banks and companies, to response the immediate deflation [8]. Unfortunately, those policies did not work as the government expected. After the implementation of those policies, deflation rate still kept in a high position, and Japan's government did not successfully stimulating the economy by reducing interest rate. However, Japanese government and the Bank of Japan quickly realized that their policy not strong enough for their economic problems. Then, they decided to decrease the interest rate to 0.5% sharply in 1995. At the same time, Japanese government start increasing the government spending to help banks and companies. But that led to a huge growth in government deficit, and Japan's government deficit kept increase in this time. Economic problems were not solved, but government spending did get a rise in total demand but not really clear.

Except bad loans problem, Japan also had a specific problem in housing market, subprime mortgage after burst of bubble. Those borrowers bought their houses before burst of bubble, has no ability or willingness to repay their house loans because of the plunge of housing market. Some borrowers as the owner of their house gave up on repaying their house loans because of the reduction of the value of their house. To be short, the burst of bubble is an opportunity, directly shows the asset prices, especially housing price, are all overvalued. The overvaluation will lead to decrease in housing price which is one of the reason why those borrowers declined to repay. After borrowers gave up on mortgage repayment, those houses as collateral of mortgage loans are belong to those banks. However, banks still can't get money back as high as they lend by selling or auction those house.

Even though Japanese government and ministry of finance of Japan increase many government spending on helping those banks and companies which had financial and loans problem by allocate fund, there are several banks declared bankrupt finally after 1997. Since this moment, Japan's financial system collapsed. Japanese economic miracle became history in that moment. There are many causes of formation of assets price bubble and the economic crisis after the bubble in Japan, but most of blames are on the Bank of Japan including their action and in action during the bubble. For example, the Bank of Japan increased interest rate in 1989 by a huge range, even the stock market got a huge steep fall they were still keep that trend. Japan's government and Bank of Japan changed interest rate five times during two years after 1989. When they realized they did wrong, Japan's economic crisis and credit expansion crisis was pretty serious already. Their reaction was not quick and effective. When a bank was concerning the credit problem or the overvalue problem of asset price, the reaction of that usually need to be direct and immediate [9].

4. The Lost Decade

4.1 QE and ZIRP in Early Japan

In 2001, Japan's government was still trying to stimulate Japanese economy by monetary policy and increasing government spending. They used to keep the zero interest rate policy from 1989-2006. However, this policy did not give Japanese economy an obvious help based on the economic data. Because of Japan's government spending amount was mostly much bigger than the amount of government revenue. The ratio of government deficit in Japan to Japanese GDP was soar into 130% in 2000, and even kept rising to 150%. Under this economic background and with a low inflation rate, Japan's government gave Japan a new policy called quantitative easing (QE) in March 2001. QE is a form of monetary policy that have a strong connection with the central bank-Bank of Japan and usually viewed as a possible monetary policy assistance to solve high deflation rate problem and low liquidity of market problem. QE specifically benefits at creates new bank reserves, providing banks more liquidity, and the operation is that central bank such as Bank of Japan start purchase securities from the open market which will increase the money supply and keep giving a reduction for local interest rate [10, 11]. The Bank of Japan's aim was decrease and control the high deflation in Japan, stimulate the Japanese economic liquidity. After the QE policy shock, Japan's manufacturing sector indeed seems got a rising. However, the goal at reducing deflation did not successfully attain, in the other word that Japan still keep in deflationary period. To be specific of the QE in 2001's Japan, the Bank of Japan was start purchasing of national deficit of Japan and medium-term bonds, the money supply got a lateral increase.

After the QE policy, Japanese economy got a breath opportunity by the little increase in liquidity of market finally. During 2006-2008, Japan decided to stop QE policy and changed the interest rate from 0% to 0.5% [12]. Unfortunately, most countries in the world including Japan got the financial crisis hit after Japan change the domestic monetary policy. Due to the global crisis, Japan's export was greatly hindered by global economic down-turn. GDP of Japan just had a little rise but quickly turns to clear decrease trend. The financial crisis undoubtedly was huge hit on Japanese economy that special time [13]. Moreover, deflation rate of Japan and national deficit of Japan sudden rise and kept

the rising trend. Most countries in the world had different degrees of depression, and Japan got a more serious new round of economic crisis and economic depression.

Japan's economic trend after Second World War (WWII) was keeping in a big fluctuation and most time was keeping in an economic depression situation in a macroscopical angle of view. Before the asset price bubble, GDP of Japan was almost the 2/3 of the US, stock market once achieved seven of ten top world stock of companies. The plunge was after burst of bubble, and after that Japan's economy kept in a down-turn position even though Japan tried lots of solution to fix that. The most important influence in Japan that keep Japan in economic down-turn is the burst of bubble in 1989s Japan. Several effect of bubble economy mostly lead to some much more serious economic problems and usually harder to fix such as the expansion of credit problem. Those problems turns to Japan's serious potential remaining problems, and usually gave Japan bigger hit when Japan facing new economic hit such as the global financial crisis in 2008.

4.2 Three Arrows of Abenomics

Because of the global crisis in 2008, Japanese citizens purchasing willing and purchasing ability was reducing with a big trend, unemployment rate was keep rising. Japan's post-bubble time gave Japan an unforgettable lesson. In 2012, Shinzo Abe became the new Japanese prime minister and announced that will reorganized Japan's economic situation. Shinzo Abe proclaim the famous policy called "three arrows of Abenomics" in the later year. The three arrows of Abe are aggressive monetary easing, flexible fiscal stimulus, structural restructuring and encourages private investment which all aim at increasing economic growth.

The first arrow, aggressive monetary policy conceptual shows as implemented negative interest rate policy an qualitative quantitative easing (QQE), bunch of new Japanese Yen (JPY) flowed into market which aim at increasing the circulation of JPY. QQE was a policy that upgraded content and functions from quantitative easing in 2001. Moreover, Japan's goal is to reduce national deficit rate under 0.25% by purchasing that from Bank of Japan, and increase the inflation rate to 2% to restrain deflation [14]. After QQE implemented, Japan's stock market activity increased and also a rising in price of Japanese stock price. The reason of that reaction could similar with the situation at the time of formation of the economic bubble in 1989s Japan, most money and capital from companies or citizen flow into assets market including stock market, housing market etc.

The second arrow from Abe was flexible fiscal stimulate, which aim at increasing government's spending such as infrastructure construction, public investment etc., to stimulate Japanese economy. In 2013, Japan's government spending reach up to \$226.76 billion. At the same time, Japan's government was trying to reduce financial pressure by increasing the consumption tax. The domestic consumption tax in Japan was rising from 5% to 8% in 2014, and kept rising to 10% in later 2019. The last arrow of "three arrows policy" was structural restructuring and encourages private investment. Japan was not only facing the economic crisis but also a serious aging population problem and lack on labor force. For example, Japanese government budget deficit-to-GDP ratio reached to staggering 200% in 2010, mainly because of the high spending rate on pension fund. This "arrow" include flexible working system and an extension of the statutory retirement age for Japanese citizen etc.[14].

5. Conclusion

Japan's economic development is a unique existence in the world after Second World War. First stage is the "Japanese economic miracle" after the war which specifically shows as the sudden rise in Japan's GDP and economic activity. This rise also came with the restructuring of Japanese economy. This economic miracle which made Japan overconfident on their markets set the stage for the subsequent recession and the formation of the assets price bubble. To analyze Japan's economic development with reaction and effect from the US, the plaza accord after Second World War made Japanese Yen (JPY) increase sharply in a short time, and that could be a turning point of Japanese

economic miracle. Moreover, before the burst of bubble, formation of Japan's expansion of credit, substandard loans, bankruptcy of many Japanese companies, also had connection with the US. For example in the 70s and 80s, the US start open the financial market and push Japan became to financial liberalization like them. Most of the substandard from companies and business group was implemented, because it was easier to get loans from bond market than banks. Based on research, Japan's government and banks had a communication channel called "window guidance" which means that Japanese government can set key performance indicator (KPI) to those banks and take supervision at them. That made those banks which can't achieve theirs KPI by reduction on amount of borrowers, they will reduce their lending standards to get more borrowers to finish their KPI.

Nowadays, Japan still have plenty of reaming economic problems, such as the bust of economic bubble which also called as "post-bubble economic period". Japan's deflation rate was keeping in a rising trend after the burst of bubble. Luckily, Japan stop the deflation, but the deflationary in Japan turned into inflation problem in 2023. JPY is keeping in a decrease trend and the Bank of Japan and Japanese government still plan to produce more new Yen in monetary market. Went through the post-bubble economic period till nowadays, Japanese Yen's trust of international investors was keeping reduce which will lead to decrease trend on exchange rate of JPY.

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