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JAPAN'S EXPANSIONARY MONETARY POLICY UNDER ABENOMICS (2013–2018)

(Summary)

A major part of Abenomics is based on NKE (New Keynesian Economics) and its recommendations to adopt certain measures of state intervention when the economy is operating under its potential. This has been the case for Japan over the last two decades. Economists posit that a sustainable, mild inflation might be a remedy for Japan's prolonged recession. This paper examines the expansionary monetary policy tools of the Bank of Japan (BOJ) and their impact on inflation targets and the CPI (consumers price index). It argues that they are efficient only with reference to the monetary base increases, but overall they are not sufficient. Bolder measures are necessary to improve the Japanese economy and boost domestic demand, including structural reforms; in particular overcoming the expanding income disparities in Japanese society. The following methods of research have been applied in this paper: economic data analysis; case study; documents analysis; cause-and-effect analysis.

Keywords: Abenomics; ultra-loose monetary policy; price level

JEL Classification: E52, E58, E31

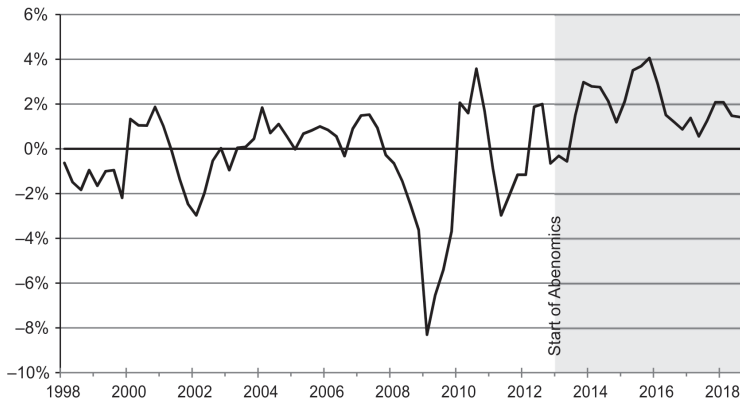
1. Introduction

In 2013 Japan's Prime Minister Shinzo Abe started his programme called 'Abenomics' and targeted the recovery to bringing prices into a positive territory, thus promoting a sustained growth of the Japanese economy. One of the most favourable impacts of Abenomics has been on the nominal GDP growth rate, which has been positive throughout the entire period 2013–2018 (Figure 1). This has, to some extent, contributed to a decrease in unemployment as well as flattened the ratio of public debt to GDP, although it is still the highest among developed

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countries (over 250%). Abe's macroeconomic package includes an expansionary monetary policy, a large fiscal stimulus, and structural reforms. The Bank of Japan (BOJ) has three major tools at its disposal to support price increases and economic recovery: interest rate cuts; increase of the monetary base; and monitoring inflation expectations. A major role, having the aim of fighting deflation and stimulating economic growth, could be played by interest rates.

FIGURE 1: *Japan's nominal GDP growth rate, YoY, quarterly*



Source: CEIC Data, <https://www.ceicdata.com/en/indicator/japan/nominal-gdp-growth>; accessed 25.10.2018.

The first post-war round of interest rate cuts took place in 1986, and its main purpose was the expansion of domestic production. Soon thereafter this move led to excess capacity in such export-oriented industries as: steel, consumer electronics, cars, and shipbuilding. Very cheap money and rapid credit growth and activity multiplied the profits of the financial sector while laying the foundations for rampant speculation, and the resultant growth bubble burst in the 1990s¹.

In order to get out of the liquidity trap after 1995, the Bank of Japan adopted a series of unprecedented policy actions. In 1999 a zero interest rate was introduced. Unfortunately, in this way the Bank lost its most important channel of monetary policy. Once nominal interest rates are lowered to hit the zero lower bound, real interest rates cannot decline further without a rise in inflation expectations².

¹ **D. Stockman**, *Japan's Keynesian Demise: A Cautionary Tale For Our Times*, 2014, <http://davidstockmanscontracorner.com/japans-keynesian-demise-a-cautionary-tale-for-our-times>; accessed 21.10.2018.

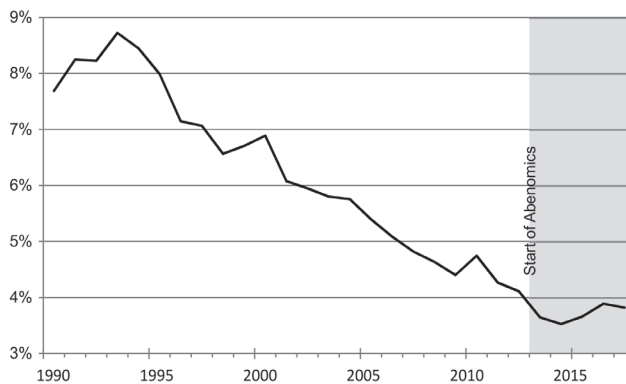
² **H. Kuroda**, *Japan's Experience of Overcoming the Zero Lower Bound*, Bank of Japan, January 12, 2016, p. 2.

A negative interest rate followed in January 2016, according to which the Bank of Japan decided to apply a negative short-term interest rate of minus 0.1 percent for some funds that financial institutions store with the central bank (Iwata, p. 2, Just, bibl. 54). The experience of a negative interest rate had been already pioneered by several other central banks: the European Central Bank, Swiss National Bank, Swedish Riksbank, and the National Bank of Denmark³. Also some German banks of lower rank e.g. Raiffeisenbank Gmund am Tegernsee as well as Deutsche Skatbank adopted negative interest rates towards their customers.

2. Unconventional monetary policy tools of the BOJ

The most important aim of the negative interest rate was to boost credit activity and raise inflation indices. This affected the currency exchange rate of the country, discouraging foreign investors from allocating money, but such a decision seemed justified to increase Japanese exports. The long-lasting decline in Japan's share in world exports has been stopped after hitting 3.8% in 2017 (Figure 2). The yen has depreciated about 30% during the period of 2013–2018 (Figure 3).

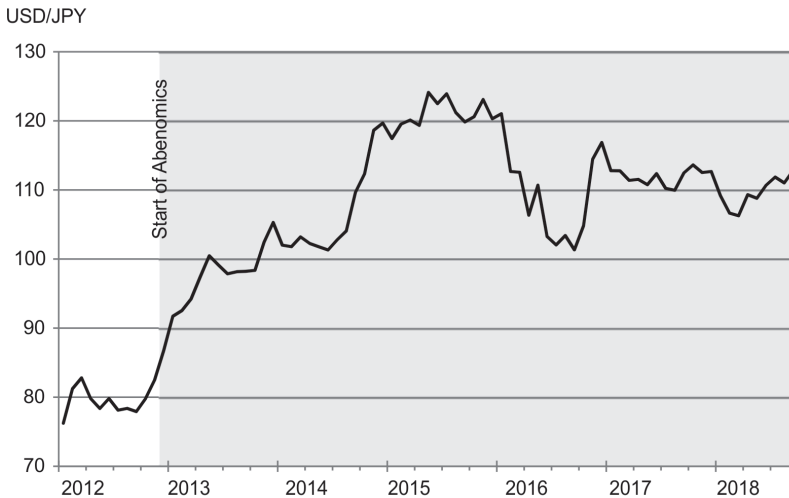
FIGURE 2: Japan's share of total world export



Source: own elaboration based on WTO data, [http://stat.wto.org/StatisticalProgram/WSDB-StatProgram Home.aspx?Language=E](http://stat.wto.org/StatisticalProgram/WSDB-StatProgramHome.aspx?Language=E); accessed 21.10.2018.

³ S. Shirai, *Mission incomplete. Reflating Japan's Economy*, Asian Development Bank Institute, Tokyo 2016, pp. 96–97, 108–110.

FIGURE 3: U.S. Dollar / Japanese Yen



Source: Investing.com, <https://www.investing.com/currencies/usd-jpy-historical-data>; accessed 21.10.2018.

The rationale of the monetary authorities for introducing a negative interest rate boils down to the argument that rich states' citizens are usually ready to sacrifice profits in exchange for security. This means that they are ready to pay some extra fee to their bank for keeping their surplus money safe instead of engaging in risky investments by themselves.

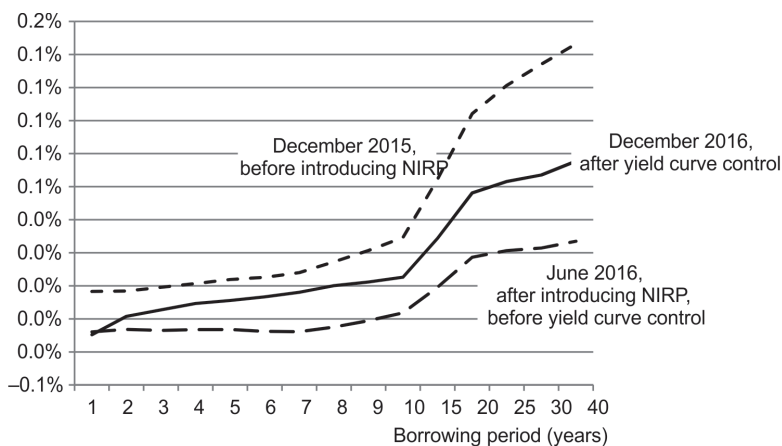
Sometimes these arguments do not work, which may result in banks not earning a decent yield. To prevent banks from too-low profits, a policy of control of the yield curve was adopted in September 2016⁴. A steeper yield curve would alleviate some of the pressure on commercial banks and pension funds; while a flatter yield curve would reduce their profits. The central bank has been aiming at achieving a steeper yield curve. The Bank of Japan decided to introduce "QQE with Yield Curve Control" by controlling short-term and long-term interest rates of financial institutions and pension funds. Such an expansionary policy is not likely to reduce the number of bonds the BOJ is required to buy in its quest to meet the 2% inflation target, which was adopted by the Bank of Japan in 2013

⁴ **Bank of Japan Statement on Monetary Policy, New Framework for Strengthening Monetary Easing: "Quantitative and Qualitative Monetary Easing with Yield Curve Control"**, Bank of Japan, September 21, 2016.

to improve the economy and combat a prolonged deflation. It is expected that the BOJ will run out of Japanese Government Bonds (JGBs) very quickly if it keeps up the current ¥80 trillion per year pace of purchases⁵.

Figure 4 shows that immediately after introducing the NIRP (negative interest rate policy) bank profits diminished, but after adoption of a yield curve control they were restored to some extent.

FIGURE 4: Yield curve – Japan government bonds' interest rates (average in Dec 2015, June 2016 and Dec 2016)



Source: own elaboration based on Ministry of Finance data, https://www.mof.go.jp/english/jgbs/reference/interest_rate/index.htm; accessed 21.10.2018.

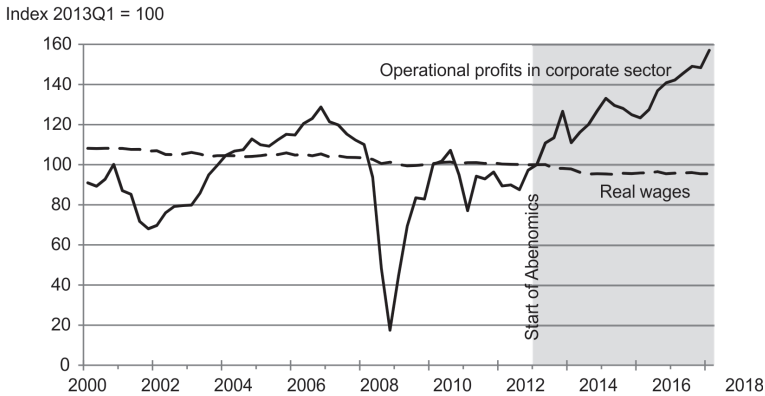
In 2018, for the second time in recent years the Bank of Japan decided to apply forward guidance as a tool of monetary policy, promising to keep extremely low levels of interest rates “for an extended period of time”. A loose pledge to increase government bond holdings by about 80 trillion yen annually remained in place, although the Bank added that it would conduct purchases in a “flexible manner”⁶. At the same time it pledged to keep 10-year government bond yields around zero percent (long-term interest rate). The 10-year bond yield is expected to be 0.08% at the end of 2018, before rising to 0.15% at

⁵ S. Arslanalp, D. Botman, *Portfolio Rebalancing in Japan: Constraints and Implications for Quantitative Easing*, IMF Working Paper, WP/15/186, International Monetary Fund 2015.

⁶ **Bank of Japan Statement on Monetary Policy**, *Strengthening the Framework for Continuous Powerful Monetary Easing*, Bank of Japan, July 31, 2018.

the end of 2019⁷. But price gains still remain weak (approximately 1% core CPI in 2018) despite robust corporate profits and a tightening labour market (Figure 5).

FIGURE 5: *Real wages and operational profits in the corporate sector (2013Q1 = 100)*



S o u r c e: own elaboration based on Ministry of Finance data, <https://www.mof.go.jp/english/pri/reference/ssc/historical.htm> and on Ministry of Health, Labour and Welfare data, <https://www.mhlw.go.jp/english/database/db-l/monthly-labour.html>; accessed 21.10.2018.

The small actual impact of low interest rates on inflation has produced uncertain accompanying effects. Firstly, for purely operational reasons it might not be easy to peg the long-term interest rate. The yield curve does not adjust precisely according to either the interest rate or government bonds purchases, so fine-tuning is likely to be difficult⁸.

Secondly, low interest rates do not ensure high total savings, especially in the context of the aging of the Japanese society. Pensioners do not create new value, while the financial support provided to them consumes huge sums, which have to be earmarked for healthcare and social security. It is thus no wonder that the savings propensity is not as important a factor of GDP growth as it used to be. While during the time of the Japanese economic miracle (1954–1973) the high savings propensity provided the original basis for accelerated economic

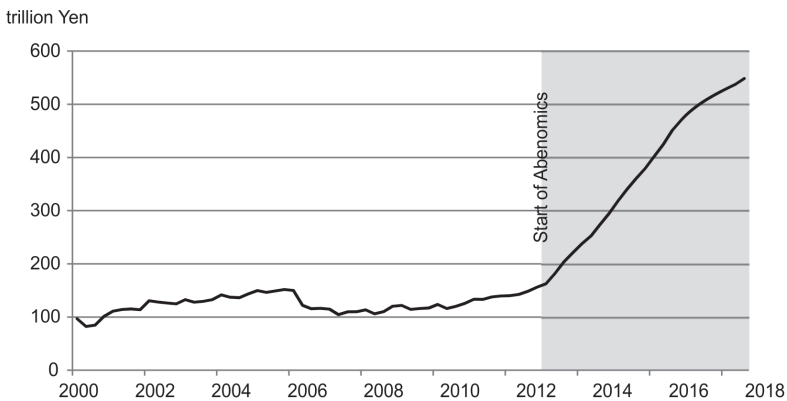
⁷ **L. Ice**, *Japan: BoJ remains committed to ultra-loose monetary policy, introduces forward guidance to alleviate negative effects*, FocusEconomics, July 31, 2018.

⁸ **B.S. Bernanke**, *What tools does the Fed have left? Part 2: Targeting longer-term interest rates*, Brookings, 2016, <https://www.brookings.edu/blog/ben-bernanke/2016/03/24/what-tools-does-the-fed-have-left-part-2-targeting-longer-term-interest-rates>; accessed 18.10.2018.

growth and – together with business investment and expansion of exports placed Japan among the most developed economies in the world – recently it has fallen to just a few percent.

Thirdly, the myth that the BOJ can continuously finance the cost of servicing public debt at an interest rate either negative or close to zero is not true. At present the interest rate of JGBs is so low – and the scale of the issuance so large – that society no longer keeps up with the successive bond emissions. It is almost exclusively the BOJ that increases its spending, increasing the monetary base at an alarming rate. In the five years of Abenomics, the BOJ assets have swallowed from over 30% in relation to GDP (approximately 125 trillion yen) to over 90% (almost 550 trillion yen) (Figure 6). It holds not only the majority of the JGB market, but also a large amount of ETTs (exchange trade funds) that invest the majority of their assets in the Japanese equities being traded on local stock exchanges.

FIGURE 6: *Total Assets of Japan*

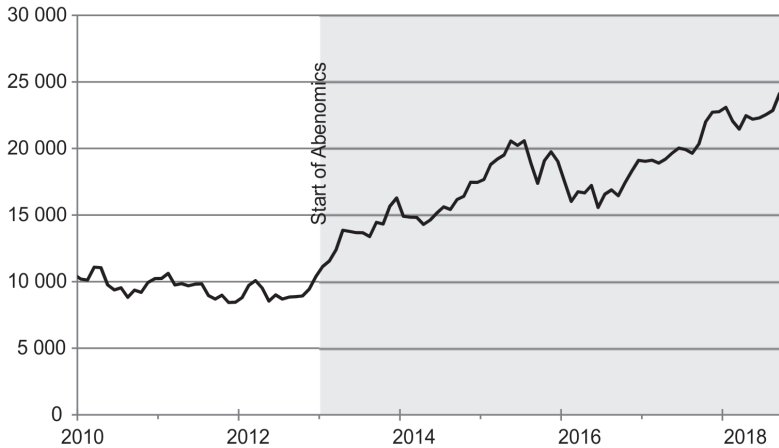


Source: Bank of Japan, [http://www.stat-search.boj.or.jp/ssi/cgi-bin/famecgi2?cgi=\\$nme_a000_en&lstSelection=BS01](http://www.stat-search.boj.or.jp/ssi/cgi-bin/famecgi2?cgi=$nme_a000_en&lstSelection=BS01); accessed 21.10.2018.

Modest equity holdings have been the strategy of central banks for years, and the practice of central banks owning significant shares of equities is a very new phenomenon. In the United States, the Federal Reserve Bank is legally prohibited from owning equities and instead invests its reserves in bonds and other government-backed securities. The BOJ currently owns nearly 75 percent of Japanese ETFs. In three years the Nikkei 225 index has noted a tremendous rise, from about 11,000 Japanese yen at the beginning of 2013 to almost 24,000 in September 2018, i.e.

an over two-fold increase (Figure 7). Other central banks, including the European Central Bank and the South African Reserve Bank, also make similar purchases, although Japan is, along with Switzerland, the most aggressive buyer of equities.

FIGURE 7: *Nikkei 225 stock market index for the Tokyo Stock Exchange*



Source: Nikkei 225 Official Site, <https://indexes.nikkei.co.jp/en/nkave/index?type=download>; accessed 21.10.2018.

The motives are clear: for decades Japan has had difficulties sustaining economic growth, and the Bank of Japan has already exhausted more traditional forms of stimuli, such as interest rate cuts and bond purchases. But the equity strategy is not without risks. Equity markets can take dramatic downward turns quickly, and in a situation where the central bank decides to sell in panic it could easily accelerate an equity market collapse. Central bank stock ownership also carries a corporate governance complication. A central bank that owns a substantial amount of equity in a company has, at least in theory, some responsibility for how the company is run. But the idea of a private-sector company being even partially directed by a central bank is in potential conflict with the way the majority of developed nations have approached the relationship between markets and state institutions over the last several decades. The alternative – ownership with no responsibility – is hardly more appealing⁹.

⁹ **J. Ledbetter**, *Commentary: Are central banks embracing too much risk?*, Reuters, 2018, <https://www.reuters.com/article/us-ledbetter-centralbanks-commentary/commentary-are-central-banks-embracing-too-much-risk-idUSKBN1JN1YT>; accessed 19.10.2018.

Table 1 stipulates the most important monetary tools introduced by the Bank of Japan in the period 2013–2018:

TABLE 1: *Japan's unconventional monetary policies under Abenomics (in order of announcement)*

Stage 1: Quantity and Quality Easing (QQE) with the aim of changing expectations	
April 2013	<ul style="list-style-type: none"> • A 2% price stability target, measured by changes in the core CPI in 2 consecutive years • Doubling of the monetary base and long-term JGBs/EFTs in 2 years • Extending the average remaining maturity of JGBs from 3 to 7 years
October & December 2014	<ul style="list-style-type: none"> • Monetary base increase to 80 trillion yen per year • Increase of JGB purchases and extended maturities from 7 to 12 years on average • Expansion of stock buying program (EFTs/J-REITs) – first tripling annual purchases; then by an additional 300 billion yen
Stage 2: Quantity and Quality Easing (QQE) + Negative Interest Rate Policy (NIRP)	
January 2016	<ul style="list-style-type: none"> • Negative 0.1% interest rate applied to current accounts at BOJ • Monetary-based expansion pace maintained (80 trillion a year) • Average maturity of 7–12 years of long-term JGBs maintained
July 2016	<ul style="list-style-type: none"> • Increase of EFTs from 3.3 trillion yen to 6 trillion yen • Other guidelines and asset purchases maintained
Stage 3: QQE + NIRP + Yield Curve Control	
September 2016	<ul style="list-style-type: none"> • Introducing Yield Curve Control by control of short-term and long-term interest rates <ul style="list-style-type: none"> • short-term interest rate policy of NIR maintained • long-term interest rate control by purchase of JGBs so that the 10-year JGB yield is around zero percent • Maintaining monetary base expansion until the core CPI meets the price stability target of 2% and stays above this level in a stable manner
Stage 4: QQE + NIRP + Yield Curve Control + forward guidance	
April 2018	<ul style="list-style-type: none"> • Yield Curve Control by control of short-term and long-term interest rates <ul style="list-style-type: none"> • short-term interest rate policy of NIR maintained • BOJ removes its time frame for attaining the inflation target of 2% (after postponing the final date several times) • Maintaining monetary base expansion at 80 trillion yen a year

Table 1 (contd.)

July 2018	<ul style="list-style-type: none"> • BOJ decides to allow long-term interest rates to rise a little above the level of 0% with the aim of increasing the sustainability of its QQE program • Purchases of JGBs so that the long-term interest rate will remain at around 0%; purchases of EFTs & J-REITs to reach about 6 trillion yen and 90 billion yen, respectively • BOJ decides to strengthen its commitment to achieve the price stability target by introducing forward guidance for policy rates and to enhance the sustainability of QQE with yield curve control
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Source: Bank of Japan, statements on Monetary Policy, 2018, http://www.boj.or.jp/en/mopo/mpmdeci/state_all/index.htm/

3. Theoretical foundations of the relationship between interest rate and inflation. Methodological framework and results

In order to examine the effectiveness of the BOJ's expansionary monetary policy tools and their impact on inflation target and CPI two economic theories were considered: the long term monetary neutrality and Irving Fisher's theory of interest rate.

We start with the quantity theory of money equation:

$$M \times V = P \times Y$$

where M represents the money stock, V velocity of money, P aggregate price level and Y is the real output of the economy. Assuming that the money stock is fixed or grows at the constant rate, the velocity of money is constant and the output is easy to estimate, in the long term one can predict the causality between the stock of money and the aggregate level of prices.

If the money authority chooses to increase the money stock by cutting the interest rate, employees tempted by a wage rise temporarily cut unemployment. When they realize that the price level has been pushed simultaneously, they decide to return to the previous state of unemployment, called natural. This phenomenon is referred to as "money illusion" and the concept was introduced by Milton Friedman, first. If money illusion exists, it implies the so called neutrality of money. The money neutrality states that in the long term money supply changes affect only the nominal values (prices, wages *etc.*) and not the

real ones (employment, real GDP *etc.*). According to Friedman, money is not neutral in the short term, because economic units get confused due to the money illusion.

Consequently, with the central bank's interest rate reduction, credit becomes cheaper for investors and credit expansion follows. The increase of money supply alters the relationship between the aggregate supply and the aggregate demand and by intermediary of the general price level leads to inflation. According to the standard theory nominal rates cuts cause the rising inflation.

The second economic theory we rely on is Fisher's theory of the relationship between the nominal interest rate, the inflation rate and the real interest rate. Let "r" denote the real interest rate, "i" denote the nominal interest rate and π – inflation rate. Hence, Fisher's equation takes the following formula:

$$i = r + \pi$$

(This is in fact a linear approximation, but often put as an equality).

So, in the long term inflation has to correspond to the difference between the long term levels of the nominal and the real interest rates. If, according to the monetary theory of money, the real interest rate is unaffected by tools of monetary policy in the long term, change in the nominal rate – in line with Fisher's equation – will necessarily be met with an equal change in inflation in the same direction. Concluding: low nominal interest rate over the long term result in low nominal rates of inflation, which has been verified by Magnus Jonsson and André Reslow¹⁰.

The hypothesis of this study states that there is a one way of causal relationship between the nominal long-lived interest rate (X) and inflation rate (Y). We adopt Granger's causality test to verify this hypothesis. To test the causality between X and Y we start with estimation of value of Y, explained by its own lags and then estimate the value of Y after introducing the lagged value of X. If this can better explain value of Y, X will be the Granger cause of Y.

The empirical analysis was performed using historical time series data:

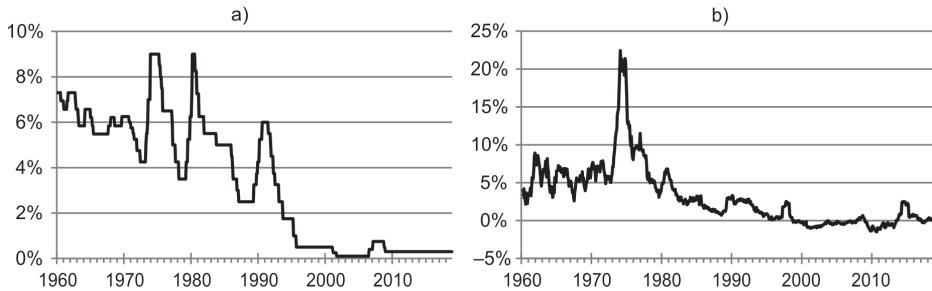
- Basic Discount Rates and Basic Loan Rates (previously Indicated as "Official Discount Rates") set by the Bank of Japan¹¹ (Figure 8a), further called interest rate;

¹⁰ M. Jonsson, A. Reslow, *Interest and inflation rates through the lens of the theory of Irving Fisher*, Sveriges Riksbank Economic Review, 2015:2, September 09, 2015.

¹¹ International Monetary Fund, Interest Rates, Discount Rate for Japan [INTDSRJPM193N], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/INTDSRJPM193N>, January 12, 2019 – monthly time series since 1960-01 till 2018-11.

- Consumer Price Index: OECD Groups: All Items Non-Food and Non-Energy for Japan, growth rate same period previous year¹² (Figure 8b), further called inflation rate.

FIGURE 8: Left (a): interest rate (Basic Discount Rates and Basic Loan Rates set by the Bank of Japan). Right (b): inflation rate (Consumer Price Index: OECD Groups: All Items Non-Food and Non-Energy for Japan, YOY)



Source: own elaboration based on the IMF and the OECD data: <https://fred.stlouisfed.org/series/INTDSRJPM193N> and <https://fred.stlouisfed.org/series/CPGRLE01JPM659N>

After having analysed the interest rate over the last 60 years it was found that this variable presented a downward trend till 1995 and since then a mean became stable. We decided to analyse the impact between the interest rate and the inflation rate, separately, for years 1960–1995 and 1996–2018, because the statistical parameters of the interest rate seemed quite different for both periods.

At the beginning of the study the stationarity of both the time series in both periods were tested¹³. The Augmented Dickey–Fuller test was conducted to determine probability (p-value) of a null hypothesis stating that a unit root was present in time series given in Table 2.

¹² Organization for Economic Co-operation and Development, Consumer Price Index: OECD Groups: All Items Non-Food and Non-Energy for Japan [CPGRLE01JPM659N], retrieved from FRED, Federal Reserve Bank of St. Louis; <https://fred.stlouisfed.org/series/CPGRLE01JPM659N>, January 13, 2019 – Growth Rate Same Period Previous Year, Not Seasonally Adjusted.

¹³ All tests were carried out using the Gretl software.

TABLE 2: *Results of the ADF test for stationarity*

Time series	Variant	Lag length	p-value
Interest rate (1960–1995)	with constant and trend	10	0,00783
Inflation rate (1960–1995)	with constant and trend	10	0,00532
Interest rate (1996–2018)	with constant	7	0,01910
Inflation rate 1996–2018)	no constant	7	0,00268

Values in p-value column showed statistical insignificance for all four time series (probability of the null hypothesis less than 2%). These findings allowed us to apply Granger causality test, using the vector autoregressive (VAR) model.

Evaluations of number of lags to include in VAR models were performed with AIC, BIC and HQC criteria. The results showed:

- in 1960–1995: 13 lags (AIC, HQC) or 2 (BIC);
- in 1996–2018: 13 lags (AIC) or 1 (BIC, HQC).

On the basis of Granger causality test, using F-tests for VAR models with 13 variables for the 1960–1995 period and with 1 variable for years 1996–2018, the following probabilities (p-value) of null hypotheses were provided in Table 3.

TABLE 3: *Results of the F-test for Granger causality*

Years	Null hypothesis	p-value
1960–1995	Interest rate were not caused by lagged inflation rate	0,0073
	Inflation rate were not caused by lagged interest rate	0,7348
1996–2018	Interest rate were not caused by lagged inflation rate	0,584
	Inflation rate were not caused by lagged interest rate	0,564

Finally, our study stated that:

- in 1960–1995 period there existed a unilateral causality between inflation rate and interest rate (changes in interest rate were caused by changes in inflation rate);
- in 1996–2018 there were no evident causalities between inflation rate and interest rate.

4. The impact of Abenomics' ultra-loose monetary policy on the economy and society

It is not known for how long such an expansive system of printing money can be sustained without bringing about palpable damage to the economy. The first signs of upcoming difficulties are already visible – large loans with a very low interest rate in investment banking have caused the rental real estate market to overheat. The current macroeconomic situation seems similar to that which existed shortly before the collapse of Lehman Brothers, which was the start of the world financial crisis of 2008–2009. In 2016 the Financial Services Agency (FSA) raised concerns about the risks for the Japanese financial system¹⁴. It determined credit concentration risks for specific sectors, including the lending to real estate sector (e.g. apartments and house loans). As a result, the amount of loans was reduced for the first time in six years. The number of real estate companies that went bankrupt in August 2018 amounted to 32; double the number of a year earlier¹⁵.

A serious impediment to achieving the desired inflation target of 2% is the lack of full credibility of the central bank, which is particularly important in the long-lasting campaign against persistent deflation. Therefore, the BOJ should be very assertive in implementing its goal of raising inflation. At the moment it is trying to employ ever more forward guidance in its quest to anchor the inflation expectations¹⁶. Forward guidance was first adopted by the Bank of Japan in 2001, together with QE (Quantitative Easing), in order to convince society of the necessity of mass monetary demand stimulus and of the good will on the part of the government to continue these policies. It was introduced for a second time in 2018 in order to reconcile two conflicting approaches: the commitment of the Bank of Japan to ultra-loose monetary policy; and the sustainability of this programme. In order to make JGB purchases profitable, the Bank of Japan allowed for the 10 year bond yield to fluctuate a little bit above the zero ceiling.

¹⁴ **Financial Services Agency**, *Summary Points from Progress and Assessment of the Strategic Directions and Priorities 2015–2016*, September 2016, <http://www.fsa.go.jp/en/news/2016/20161028-2/01.pdf>; accessed 19.10.2018.

¹⁵ **M. Fukazu**, *BOJ's easy money policy led to excessive loans; chances to restore fiscal health slim*, The Mainichi, 2018, <https://mainichi.jp/english/articles/20180918/p2a/00m/0na/039000c>; accessed 22.10.2018.

¹⁶ **S. Shirai**, *Mission incomplete. Reflating Japan's Economy*, Asian Development Bank Institute, Tokyo 2016, p. 59.

In 2001 interest rates cuts were substituted by a monetary base increase as the main operating target of the Bank of Japan. This change resulted from having less possibilities to make an impact through zero and negative than through positive interest rates. Positive interest rates can better stimulate growth, and their increase is more persuasive in hindering overheated economic activity. A negative interest rate can be successfully imposed only when inflation expectations are on the rise, as only then is there an incentive to save money in a bank. QQE (Quantitative and Qualitative Easing) came into force in 2013 after other measures (interest rate and bond emissions) had been nearly exhausted. Our study results submitted in section 3 confirm that for very low levels of basic discount rates and basic loan rates there is no causalities between inflation rate and interest rate.

“The deflation mentality” caused by a prolonged period of low growth and deflation is still holding firms back from raising wages and prices, as well as keeping consumers intolerant of price increases. The economy has failed to achieve its inflation target to a large extent due to the fact that wages have not risen as fast as expected. The majority of workers in Japan are permanent employees, and their wages are settled by contracts which reflect the cost of living. Moreover, when prices are low some firms prefer to seek gains in productivity by introducing robots.

The New Keynesian Phillips Curve, which is an important theoretical tool of Abenomics, assumes a relationship between inflation and the output gap. In addition to the dependence of inflation on the difference between real and potential GDP, the role of inflation expectations is also stressed. If the present level of GDP (in 2015 the nominal Japanese GDP was almost the same as 20 years earlier!) is so low due to a very low aggregate demand, it may be a “natural” reaction on the part of the government and the central bank to make efforts to increase it.

If the effective influence of real domestic demand on growth via the use of the measures of NKE looks uncertain – or at best small – then efforts should be focused on the possibility of raising the potential GDP, in particular through structural reforms. There is still a lot to do in this area, especially taking into considerations Japan’s major challenges – inflexible labour markets and low competitiveness of the Japanese service sector, as well as the domestic orientation of primary commodities industries. Perhaps the implementation of the first two “arrows” of Abenomics, in accordance with the new Keynesian economics, is easier than fostering hard structural transformations. This does not mean, however, that they should be abandoned.

5. Conclusions and prospects

An unconventional monetary policy may have contributed to the growth of GDP as well as overcoming stubborn deflation, but not to a sufficient degree, as the 2013–2014 increase in the CPI might be to a large extent an effect of a consumption tax hike from 5% to 8%. Moreover, it is important to be aware of the fact that NIRP may become useless in a prospective downturn, as there is no room to reduce interest rates in Japan at all. However, Abe's government regulations allowing for a return to nuclear power released pressures on the demand for crude oil and natural gas, thus relaxing the budget deficit, and this has had a positive impact on Japan's highly indebted situation.

In turn, QQE is debated not only in the context of the securities' composition. If a monetary base spike fails to stimulate Japan's insufficient demand, in particular private consumption, other measures may be required. Joseph E. Stiglitz suggests three alternative remedies.¹⁷ The first one would rely on replacing part of the debt with perpetuities – bonds which are never to be redeemed, but each year bring in a small and steady income. Another alternative could be debt monetization, that is exchange of debt for money which does not yield interest. Another possibility could be redemption of the public sector debt by the issuers of debt. In this way the public could be informed only about data on the net debt, which would make the citizens feel better about Japan, a country with the highest debt in the rich world. The problem is none of these three remedies have been tested anywhere yet.

Low inflation expectations are much blamed for the failure to meet the 2% CPI target. Ben Bernanke, chairman of the American Federal Reserve in 2006–2013, concluded that this was the result of earlier policies of the BOJ, which allowed the deflationary mindset to prevail for many years¹⁸. O. Blanchard and A. Posen¹⁹ added that in a situation where expectations had been maintained so low over the long term, it is vital to increase actual inflation first. The way to do this is to strongly persuade firms to grant larger nominal wage increases and then transfer them into prices. The government by itself could initiate this process by beginning with salary increases in the bureaucracy ranks.

¹⁷ **J. Stiglitz**, *A Better Economic Plan for Japan*, The Guardian, September 15, 2016.

¹⁸ **B.S. Bernanke**, *Some reflections on Japanese monetary policy*, Brookings Institution, May 23, 2017, p. 15.

¹⁹ **O. Blanchard, A. Posen**, *Getting Serious About Wage Inflation in Japan*, Nikkei Asian Review, December 15, 2015.

To conclude, while expansionary monetary tools – predominantly a massive monetary base stimulus, particularly accompanied by an increase in inflation expectations – have the potential to improve the Japanese economy at least in the short- and medium-term, measures other than Keynesian should be taken into account as well. The most important of them is to overcome the growing income disparities in the Japanese society. This cannot be attained without redistributing the corporate wealth in favour of labour. The recommendation to focus this “third arrow” of Abenomics in order to increase wages and boost domestic consumption is the most important conclusion of this paper.

References

- Arslanalp Serkan, Botman Dennis**, *Portfolio Rebalancing in Japan: Constraints and Implications for Quantitative Easing*, IMF Working Paper, WP/15/186, International Monetary Fund, 2015.
- Bank of Japan Statement on Monetary Policy**, *New Framework for Strengthening Monetary Easing: “Quantitative and Qualitative Monetary Easing with Yield Curve Control”*, Bank of Japan, September 21, 2016.
- Bank of Japan Statement on Monetary Policy**, *Strengthening the Framework for Continuous Powerful Monetary Easing*, Bank of Japan, July 31, 2018.
- Bernanke Ben S.**, *Some reflections on Japanese monetary policy*, Brookings Institution, May 23, 2017, p. 15.
- Bernanke Ben S.**, *What tools does the Fed have left? Part 2: Targeting longer-term interest rates*, Brookings, 2016, <https://www.brookings.edu/blog/ben-bernanke/2016/03/24/what-tools-does-the-fed-have-left-part-2-targeting-longer-term-interest-rates>; accessed 18.10.2018.
- Blanchard Olivier, Posen Adam**, *Getting Serious About Wage Inflation in Japan*, Nikkei Asian Review, December 15, 2015.
- Financial Services Agency**, *Summary Points from Progress and Assessment of the Strategic Directions and Priorities 2015–2016*, September 2016, <http://www.fsa.go.jp/en/news/2016/20161028-2/01.pdf>; accessed 19.10.2018.
- Fukazu Makoto**, *BOJ's easy money policy led to excessive loans; chances to restore fiscal health slim*, The Mainichi, 2018, <https://mainichi.jp/english/articles/20180918/p2a/00m/0na/039000c>; accessed 22.10.2018.
- Ice Lindsey**, *Japan: BoJ remains committed to ultra-loose monetary policy, introduces forward guidance to alleviate negative effects*, FocusEconomics, July 31, 2018.
- Jonsson Magnus, Reslow Andree**, *Interest and inflation rates through the lens of the theory of Irving Fisher*, Sveriges Riksbank Economic Review, 2015:2, September 09, 2015.
- Kuroda Haruhiko**, *Japan's Experience of Overcoming the Zero Lower Bound*, Bank of Japan, January 12, 2016.
- Ledbetter James**, *Commentary: Are central banks embracing too much risk?*, Reuters, 2018, <https://www.reuters.com/article/us-ledbetter-centralbanks-commentary/commentary-are-central-banks-embracing-too-much-risk-idUSKBN1JN1YT>; accessed 19.10.2018.

Shirai Sayuri, *Mission incomplete. Reflating Japan's Economy*, Asian Development Bank Institute, Tokyo 2016.

Stiglitz Joseph, *A Better Economic Plan for Japan*, The Guardian, September 15, 2016.

Stockman David, *Japan's Keynesian Demise: A Cautionary Tale For Our Times*, 2014, <http://davidstockmanscontracorner.com/japans-keynesian-demise-a-cautionary-tale-for-our-times>; accessed 21.10.2018.

Storey David, Li Shi, *Assessing the BOJ's yield curve control policy*, Asian Development Bank Institute, 2017, <https://www.asiapathways-adbi.org/2017/03/assessing-the-bojs-yield-curve-control-policy>; accessed 14.10.2018.

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EKSPANSYWNA POLITYKA MONETARNA JAPONII W RAMACH ABENOMIKI (2013–2018)

(Streszczenie)

Znaczna część Abenomiki opiera się na NEK (nowej ekonomii keynesistowskiej) i jej zaleceniach dotyczących zastosowania określonych narzędzi ingerencji państwa w sytuacji, gdy gospodarka znajduje się w recesji. Z takim stanem japońskiej gospodarki mamy do czynienia już w okresie ponad dwóch dekad. Ekonomisci przyjmują, że niewielka, stabilna inflacja może być lekarstwem na przedłużającą się recesję. Celem tego artykułu jest prześledzenie narzędzi ekspansywnej polityki monetarnej banku centralnego Japonii i ich wpływu na cel inflacyjny oraz wskaźnik cen konsumpcyjnych (CPI). Autorka wnioskuje, że są one skuteczne tylko w odniesieniu do wzrostu bazy monetarnej, chociaż nie jest to wystarczające. Celem polepszenia kondycji japońskiej gospodarki, a także zwiększenia popytu krajowego potrzebne są śmielsze rozwiązania, uwzględniające reformy strukturalne, szczególnie zmniejszenie wzrastających rozpiętości dochodowych w japońskim społeczeństwie. W opracowaniu wykorzystano następujące metody badawcze: analizę danych statystycznych, studium przypadku, analizę dokumentów oraz analizę przyczynowo-skutkową.

Słowa kluczowe: Abenomika; ekspansywne polityka monetarna; reformy strukturalne