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THE GROWING IMPORTANCE OF THE RISK-TAKING CHANNEL IN THE PROCESS OF TRANSMITTING MONETARY POLICY

ABSTRACT

Effectiveness of monetary policy depends on proper identification of changes happening in functioning of particular channels which transmit impulses of monetary policy directly into economy. Such changes sometimes limit the importance of certain channels, and sometimes they strengthen other channels, as it occurred in the recent years with risk-taking channels. Globalization, growth of competition, anchoring of low inflation in Western economies, too low economic growth when compared with the issue of unemployment, development of finance market, conscious policy of low interest rates in the USA – all of that contributed to lowering interest rates all over the world, growing the level of acceptable risk, and strengthening the negative correlation between the level of investment based on interest rates and the tendency of risk and, at the same time, operating of a risk-taking channel in the process of transmitting impulses of monetary policy into economy.

The main aim of this essay is to familiarize readers with importance of the risk-taking channel in the process of transmitting monetary policy into economy and to overview research confirming growth of its importance in the recent years.

Keywords: monetary policy, the transmission mechanism of monetary policy, channels of monetary transmission, risk-taking channel

1. INTRODUCTION

The mechanism of transmitting impulses of monetary policy can be described as activities of economic entities resulting from the policy of the central bank (Kokoszcyński 1999: 8).

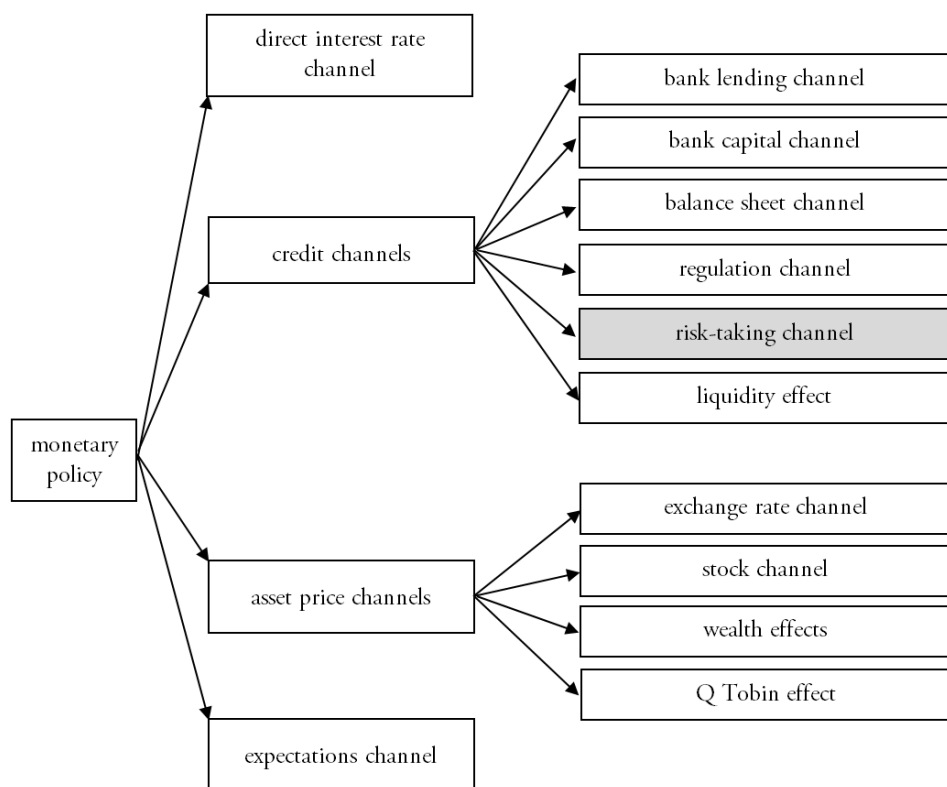
The central bank, with help of its instruments, has a possibility of influencing the course of economic processes for realizing its basic aim – ensuring stability of prices and, thanks to that,

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stability of production. Due to the complexity and changeability of economic processes, reaction of economic entities towards changes in interest rates of the central bank is conducted in different ways (by transmission channels). Traditional channels of transmission include an interest rate channel, credit channel and an exchange rate channel (Demchuk, Łyziak, Przystupa, Sznajderska, Wróbel, 2011). However, the on-going economic development, processes of internationalization, globalization, development of finance markets, and more detailed research of mechanism of transmission led to pointing to other important ways (channels) in which monetary policy of the central bank influences economy (production and level of prices) and they visualize complexity of traditional channels as well as numerous links between those.

The following scheme presents a synthetic approach to transmission channels of monetary policy, with which central banks influence activities of economic entities, the scope of production and levels of prices. It allows for an overall view on contemporary knowledge about complexity of processes of transmitting impulses of monetary policy into economy and highlights, aside from the traditional channel of interest rates, credit channels and channels of assets prices. It also highlights the importance of the influence of monetary policy on the scope of lending and on the price of marketable assets for economic processes, and also on the effectiveness of transmission mechanisms (scheme 1).

Scheme 1. The channels of monetary transmission.



Source: self-reported data on the basis of Mishkin, 2007, Boivin, Kiley, Mishkin, 2010, Mishkin, 2001 and Bank of England, 2014.

2. THE RISK-TAKING CHANNEL

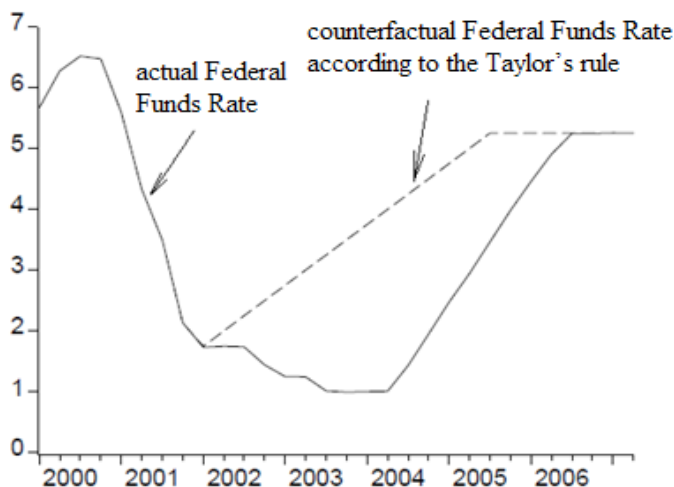
Borio, Zhu in 2008 pointed to changes which appeared in the recent years within actions of the finance system and safety regulations, highlighting crucial growth of importance of interest rates on tendencies of economy entities (including financial institutions) for taking risk, perception of risk, level of risk in a wallet, pricing of assets and conditions of acquiring new assets. By doing so, separation and recognizing importance of risk-taking channel in transmitting impulses of monetary policy to economy are justified by introducing the term *risk-taking channel* (Borio, Zhu, 2008). With this mechanism, low interest rates encourage banks to take bigger risk in order to achieve bigger profits and to take part in credit expansion, which has its result in a growing sensitivity of banks towards the market level of accepting risk.

That is why Borio, Zhu (2008) highlighted the necessity of closer examination of mechanisms involved and indication of those in models in order to examine monetary transmission.

Rajan pointed before to the issue of the growing level of accepted risk (2005). He noted that lower profits of investment relying on interest rates not only encourage, but even force to take bigger investment risk in order to cover for an already planned profit. However, it was for publications and conclusions of Borio and Zhu and the crisis of 2008 (or mostly because of it) which provoked to take a closer look at the issue. Research of Adrian, Shin (2010) confirmed that lower interest rates cause the growth in level of income or the level of assets, as well as the lowering of change in the assets prices which has its effect on lowering the evaluation of risk or a bigger tolerance towards it. Gambacorta (2009) noted that it is also intensified by the illusion of money and regulations (legal and internal) which pose a minimal guaranteed return of investment (which was in force in the recent years in, for example, Switzerland, Great Britain, Japan). Such action is strengthened by the policy of strong and stable reduction of interest rates, which increases a difference in market levels and established return rates. As Altunbas, Gambacorta, Marques-Ibanez (2010) point out, such events intensify right expectations of market towards realization of monetary policy (conducted in a trust-worthy manner, with clear rules and communication), which cause a classic issue called *moral hazard problem*. Farhi, Tirole (2009) pointed additionally that policy of low rates causes higher banks leverage which results in leverage channel, and it intensifies a *maturity-mismatch channel* which, as a result, causes issues with liquidity of banks (lowering short-term rates leads to running away from the most liquid assets) which increases levels of risk in functioning of banks. Due to strong links between financial institutions, it also lowers the stability of bank system and the entire financial system.

The effectiveness of the risk-taking channel was made stronger as a result of combining policy of low interest rates, development of financial innovations and boom on the real estate market. Low interest rates which were maintained for a longer period of time encourage to invest in risky assets due to their higher profitability. Combined with the process of globalization and liberalization, they explain the dynamic development of financial innovations, so they also partially explain the contemporary financial crisis. As a result of the dot-com bubble crashing in 2000, world was dominated by low interest rates in order to prevent recession. As Taylor (2007) points, in the United States they were maintained on a historically low level for an exceptionally long period of time – below the level from Taylor's rule, which is unofficially used by many central banks (diagram 1).

Diagram 1. The level of the actual Federal Funds Rate in between 2000–2007 and counterfactual Federal Funds Rate according to the Taylor's rule (in %).



Source: Taylor, 2007.

As Altunbas, Gambacorta, Marques-Ibanez (2010) point out, central banks should take into consideration potential influence of their decisions on banks tendency to take risks (and other entities). Banks supervision should be strengthen its vigilance, especially in periods of low interest rates and credit boom and/or dynamic growth of assets prices. Economists more often than ever suggest maintaining interest rates on the higher level than it could be gathered from economy analyses, in order to lower the tendency of banks to take risks in a situation where economy's sensitivity towards changes in interest rates is higher. This issue was described as a *policy of leaning against the wind* (Farhi, Toriolo, 2009). Agur, Demertzis (2010) point also that monetary policy, due to the issue of risk-taking, should, apart from introducing policy of higher than usual interest rates, cut in a radical manner interest rates as an answer for crisis, but at the same time retrieve them to their previous level in a quicker manner. It is done in order to encourage to take higher risk than if the interest rates would be on lower level for a longer period of time.

3. RESULTS OF THE EMPIRICAL RESEARCH PROVING THE RISK-TAKING PHENOMENON

Research confirms the link between long-lasting lower interest rates and higher level of accepted investment risk on financial markets. Altunbas, Gambacorta, Marques-Ibanez (2010) indicated the growth of tendency for risk among 600 banks in Western Europe and the USA as a result of lowering interest rates in the period of 1998–2008. Dell'Ariccia, Laeven, Suarez (2013) indicated a strong link between lower interest rates and risk tendency of commercial banks in the USA in the period of 1997–2011. They also pointed to the fact that this effect

is strong in the case of better capitalization of banks.² Paligorova, Santos (2012) indicated lowering of spreads in interest rates between credits of higher and lower level of risk in periods of lower interest income in the USA in years 1990–2010, which means that credits of lower risk have relatively lower interest rates in periods of an expansion of monetary policy. Additionally, they indicated that the above mentioned results are the effect of a growing appetite of banks for risk, and not a result of demand. Maddaloni, Peydró (2010) indicated that the policy of low short-term interest rates results in lowering credit standards to which, before the crisis of 2008, contributed several factors such as: development of securitization, poorer control of banks' assets and too long period of maintaining too low interest rates, both in the Eurozone and in the United States. Moreover, they indicated that the longer interest rates are maintained at too low level, the more credit standards are being lowered. Jiménez, Ongena, Peydró, Saurina (2009) indicated lowering credit standards in the case of middle-term loans in Spain as a result of lowering monetary policy in the period of 1984–2006 (however, not in the case of short-term loans). Ioannidou, Ongena, Peydró (2009)

Indicated that in Bolivia, in the period of 1999–2003, lower interest rates not only caused growth in the amount of granting more risky credits, but they also relatively caused a bigger decrease in its interest rates. Before the financial crisis of 2008, lowering of credit standards was particularly noticed on a mortgage market, which was indicated by many economists, such as Dell'Arricia, Igan, Laeven (2008), Mian, Sufi (2008), Keys, Mukherjee, Seru, Vig (2008), Demmyanyk, Van Hemert (2008), or Taylor (2009). Adrian, Shin (2010) demonstrated, by using 6 biggest American investment banks in the scope of several years before 2008, an important link between the rise of price of assets and a degree of leverage (the level of the assets' rate to one's equity). Similar results were obtained by Damar, Meh, Terajima (2010) for banks in Canada in years 1994–2009. Also Bruno, Shin (2014) confirmed the link between an expansive character of monetary policy of FED and a growth of the degree of leverage in banks up until the mid 2007. Buch, Eickmeier, Prieto (2011) examined the influence of policy of low interest rates on the tendency of banks to take risk within new credits which they granted in the USA in the years between 1997–2008. The results showed the growth in exposing to risk small local and well capitalized banks. When it comes to big national banks, there were found no changes, and foreign banks even dramatically lowered the risk. Black, Hazelwood (2012) performed an analysis of influence of the American government program of stabilizing the financial sector through capitalizing banks (TARP – Troubled Asset Relief Program) with respect to the issue of risk-taking in banks in the USA and they indicated that institutions of a high injection of money within the TARP program saw a great rise in the risk level of granted credits with simultaneous lack of growth in the number of granted credits. It is suggested that this situation points to the phenomenon of moral hazard related to the feeling of security thanks to the government co-owning banks and to the lack of effectiveness of this program. In banks with low share in TARP, the tendency for taking risk was lowered after the government's capitalization.

It must be noted that the expansive monetary policy in the 1980's, which was accompanied by financial liberalization combined with global actions strengthening the American currency, contributed to the capital's expansion and credit boom in many countries (and also to the growth of tendency for risk-taking) and to the creation of the speculative bubble, bursting of which resulted in serious crises (Allen, Gale, 2000). Japan was the country which suffered the most (Frankel, 1993), but the similar sequence of events happened in

² This dependence is weak in the case of banks with low levels of equity.

Scandinavia (Heiskanen, 1993, Drees, Pazarbasioglu, 1995), or in Mexico (Mishkin, 1997). Von Hagen, Ho (2007) indicated that the policy of low interest rates preceded bank crises in 47 countries in the period of 1980–2001.

4. SECURITIZATION AND THE BANK RISK-TAKING

It must be also stated that, the growing tendency for taking risk in the recent years was also affected by the phenomenon of securitization, which itself contributed to expansion of financial institutions, better availability of capital and growth of competition, which had its effect on the growing amount of granted credits in the USA in 1990's. Also, the growth of bank's capability of securing their assets resulted in lowering shares of liquid assets in their wallets. Mian, Sufi (2008) indicated that securitization played a key role in expanding mortgage credits in the USA in the period of 2001–2005, which was directed mainly to subprime clients. Keys, Mukherjee, Seru, Vig (2008) showed that securitization weakened the quality of checking credit worthiness in the boom period of subprime credits. Dell'Ariccia, Igan, Laeven (2008) pointed also to the fact that credit standards became lower in those parts of the USA where the credit boom was stronger and instruments created in the process of securitization had bigger interest rates.

Casu, Clare, Sarkisyan, Thomas (2010) indicate also that the influence of securitization on tendency of banks for taking risk is not clear and it comes from the fact that banks usually treat securitization as a source of financing, not a tool of managing the risk. They showed that securitization lowered the tendency for credit risk of banks, which in this way compensated the growth of risk coming from engagement of banks in the process of securitization. Also Cebenoyan, Strahan (2004) showed that securitization leads to limitations of risk in banks, which as a result leads to taking other risks. Similar results were indicated by Purnanandam (2009), as they showed that banks use income coming from securitization in order to grant more risky credits.

5. CONCLUSION

Better understanding of the mechanism of the risk-taking channel and taking it into consideration while making decisions of monetary policy and modeling its effects has an important meaning for economy. Firstly, it influences functioning of credit channels, which have an important role in transmitting impulses of monetary policy into economy. Secondly, the growth of tendency for taking risk with having in mind sustaining low interest rates impacts functioning of the entire economy, and also other channels of transmitting monetary policy, which may limit its efficiency, and change effects of its activity. Thirdly, it may contribute to creation of financial imbalances which limit functioning of economy and it also may contribute to issues inside the banking sector. Also, along with the growth of credit possibilities and lowering of credit standards, it will intensify the issue of growing debt and bad debt, intensifying dissection of society and economy. It is known, that risk-taking phenomenon contributes to the development of financial markets and growing assets on them, which creates a vicious circle between the higher level of risk and the higher level of profit. Even though securitization and related instruments were created in order to limit risk, nowadays development of those is fueled by desire to realize bigger profits and it encourages risk-taking. Although analyses

point to the growing tendency of risk, what remains crucial is controlling the phenomenon of risk-taking and its scope of activity. It would be of great help to analyze changes in tendencies for taking risk by other financial and economic entities in conditions of maintained low interest rates and its monitoring. Even though Boivin, Lane, Meh (2010) point to the fact that there is still not enough research showing effects of the risk-taking channel, it strengthens the argument for conducting monetary policy leaning against financial imbalances, which means maintaining interest rates on a level which is higher than usual. More and more economists advise on taking into consideration risk-taking and its influence on financial stability while formulating monetary policy – for example Borio, White (2004), Borio, Zhu (2008), Adrian, Shin, (2008), Adrian, Shin (2009), or recognizing its bigger importance when it comes to credit spreads (Taylor, Williams, 2008, Taylor, 2008, McCulley, Toloui, 2008, Cúrdia, Woodford, 2009) or the speed of the growth of credits (Christiano, Motto, Rostagno, 2007, Christiano, Ilut, Motto, Rostagno, 2008). The Internet bubble and the real estate market are re-considering whether and how monetary policy should react in the context of too high growth of assets' prices, which resulted in verification of views on this subject among some economists and politicians. Even though recent analyses were agreed that monetary policy should focus on stabilizing prices and production (for example Bernanke, Gertler, 2000, Bernanke, Gertler, 2001, Mishkin, 2001, Mishkin, 2006, Rigobon, Sack, 2001, Greenspan, 2002), now more and more people start favoring suggestions of Cecchetti, Genberg, Lipsky, Wadhvani (2000) or Borio, Lowe (2002) that monetary policy should react on imbalances found on the assets' market, to reduce the probability of creating speculation bubbles and ensure not only monetary, but also financial stability (for example White, 2006, Selody, Wilkins, 2007, Basant Rai, Mendes, 2007, Bank of Canada, 2011, Cayen, Corbett, Perrier, 2006, Mishkin 2011).

In a few years there will be time spans, which will enable evaluation of influence of current exceptionally low interest rates (as a result of the financial crisis of 2008) all over the world on the European Central Bank which, in fact, in a slower and more delicate way lowered interest rates (and a really low level – the one which has been present in other main central banks all over the world since the autumn of 2008 – was reached only in 2013); the ECB reduced those to a historically low level, not comparable with the one which was present for the first 10 years of the Eurozone. From the 1st of January 1999 up to the 9th of December 2008, the basic ECB reference rate was between 3% and 4.25%, and since November 2013 it has been 0.25% (ECB, 2014). Bearing in mind the ongoing economic stagnation, in the majority of European countries it may be argued that interest rates will prevail in Europe on a low level for some time, which should allow for examining the risk-taking not only in the Eurozone, but also in neighboring countries, including Poland. Due to usually strong links between the banking sector in those countries and banks from the Eurozone, their economies are more sensitive towards ECB monetary policy. The results of these analyses may become crucial not only from the point of efficiency of mechanisms of transmitting monetary policy of ECB or NBP (Polish National Bank), but also from the point of recognizing dangers coming from Poland entering the Eurozone. Differences in the power of this channel of transmitting monetary policy in the Eurozone and in Poland may serve as an additional argument against fast joining to the Eurozone, because it will strengthen the argument of dangers related to not adjusting the level and changes of EBC interest rates to the specific features of Polish economy (more in Dynus, 2003).

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