Babeş-Bolyai University
The Faculty of Economic Sciences and Business Administration

THE INFLUENCE OF THE TRANSMISSION MECHANISM ON MONETARY POLICY

PhD Coordinator
Prof. Univ. Dr. Mihaela Luţas

PhD Student
Horaţiu Sorin Dan

PHD THESIS TABLE OF CONTENTS

1. Introduction and Objectives 4

2. The Monetary Doctrine 11

3. Monetary Policy Objectives and Instruments 18

3.1. Monetary Policy Objectives 18

3.2. Monetary Policy Instruments 25

3.2.1. General Aspects 25

3.2.2. Monetarist Instruments 29

3.2.3. Quantitative Easing 33

4. The Monetary Policy Transmission – General Aspects 39

4.1. Short Term vs. Long Term 40

4.2. Economic Growth vs. Recession – Effects of Monetary Policy 42

4.3. The Deepness of the Financial Market and its Influence on the Monetary Policy Transmission Mechanism 45

4.4. The Monetary Policy Transmission Mechanism and the Economic Homogeneity 47

4.5. Preliminary Conclusions 56

5. The Monetary Policy Transmission – the Transmission Channels 59

5.1 Interdependencies and Ways of Functioning 59

5.2. The Interest Rate Channel 64

5.3. The Expectations Channel 69

5.3.1. Central Bank's Transparency 71

5.3.2. The Expectations Channel and the Liquidity Trap 74

5.3.3. Preliminary Conclusions 76

5.4. The Credit Channel 77

5.4.1. The Bank Lending Sub-Channel 78

5.4.2. The Balance Sheet Sub-Channel 80

5.4.3. Preliminary Conclusions 82

5.5. The Asset Price Channel 83

5.5.1. Tobin's q Value 84

5.5.2. The Effect of Wealth on Consumption – General Aspects 86

5.5.3. The Effect of Wealth on Consumption – Inter-Regional Analysis 88
5.5.4. Preliminary Conclusions 94
5.6. The Exchange Rate Channel 95
5.6.1. The Relationship with the Interest Rate: the Interest Rate Parity 95
5.6.2. Effects on the Current Account and Production 99
5.6.3. Effects on Inflation 102
5.6.4. The Exchange Rate Channel and Economic Openness 103
5.6.5. Preliminary Conclusions 105
6. External Factors to the Monetary Transmission Mechanism 107
6.1. Commodity Prices 109
6.2. Monetary Policy in the Context of Financial Globalization 111
6.3. Financial Market Volatility 117
6.4. Fiscal Policy 118
6.5. Preliminary Conclusions 120
7. Conclusions 122

References 129

Key words: monetary transmission mechanism; monetary policy, central bank.

PHD THESIS SUMMARY

Introduction and objectives

The world economic climate presently goes through a deep process of metamorphosis which affects all economic life, but especially the aspects regarding central banks and their monetary policy. In this context, the present paper sets out to determine the degree of central bank implication in the economy, focusing in this endeavor on the study of the monetary policy transmission mechanism and of the complex processes that ensure the transit of monetary policy decision effects towards the final macroeconomic variables. The monetray policy instruments represent one of the most powerful sets of forces that influence the economy, having the great advantage of being concentrated in the hands of independent institutions, thus representing a indispensable tool for modelling the economic environment. The potential force that these instruments have and the way in which central banks can use them poses two major issues, one regarding the effectiveness of the taken measures and the other linked to their efficiency, taking uys to the inevitable question regarding the extent to which the central bank must interfere with the economy. In this context, the study of the monetary policy transmission mechanism becomes ever more important because its deep understanding can provide indispensable indications in finding an answer, as, what matters in the first place are the effects that monetray policy decisions (or the effects of their absence), and the link between such decisions and the economic reality is given by the structure and way of functioning of the monetary policy transmission mechanism.

Doctrine related issues

The capitalist economic governence of the last century has oscilated between the prescriptons of thw great doctrines, which have decisively left their mark on the development of the world: keynesism (interventionist) and monetraism (neoliberal). Having different views on the role of authorities in the economic life and implicitley on the optimal degree of intervention by the central bank, the two schools of thought have alternatively dominated the world economic stage, modeling its evolution.

The problem of the optimal central bank attitude regarding its involvment in the economy is put under a new light by the economic events of recent years, which have revigorated the academic dispute regarding the central bank's role. The neoliberal doctrine, principally based on the points described in Williamson's 1989 Washington Consensus and the monetarism of the University of Chicago, which dominated the monetary practice of the last decades by promoting a high degree of independence from influences exterior to the markets, is put under a heavy question mark as monetary authorities from around the world are modifying their strategies and completing their intervention arsenals with instruments that not long ago were regarded as highly unorthodox. This new attitude is strongly influenced by interventionist economic prescriptions that we generically identify as being neo-Keynesian in nature (in all its forms, from the neo-classical synthesis to the ideas promoted beginning with the 1980s by researchers such as Stanley Fisher, John Taylor, David Romer or Olivier Blanchard, and going so far as Minsky's post-Keynesist point of view, based on the role of money and positioned in antithesis with certain neo-classical beliefs), fact which shifts the doctrinarian dispute from the academic environment towards the area of monetary decision makers.

The Structure and Functioning of the Monetary Policy Transmission Mechanism. Impications on the Central Bank's Activity.

The discussion regarding the optimal level of central bank implication in the economy must transcend the doctrinarian polemic and be settled with arguments which, even if originating in economic philosophy, reach beyond it by orienting towards the ever changing mechanisms of

the real economy. In this idea, a first step is represented by the analysis of some general aspects which are characteristic for the economic environment, the interdependencies that are established between its defining factors and the central bank's monetary actions. The first observation is linked to the consequences of the use of monetary policy instruments depending on the time frame considered, more precisely the fact that monetary policy has more extended short term effects, affecting both production and financial market related variables such as the interest rate the exchange rates, the asset prices or the intensity of the financing process. The fact that the influence on the production level is annulled on the medium and long run because of the annulment of the effects of spending on the real production due to the intervention of price changes, indicates some limitations of the modeling power that the central bank holds, however without representing an argument against central bank actions, but just an indication regarding the way that objectives should be set. This supplementary short term power over production goes hand in hand with the findings regarding the superior efficiency of monetary policy actions during a recession, when, because of the increased sensitivity of companies to monetary market conditions generated by extra difficulties encountered during recession in the financing process and because of the intensification of the effects delivered through the transmission mechanism and caused by the asymmetric influences that monetary policy has over inflation and the production level (Peersman şi Smets, 2004: 47).

Another aspect that matters when we speak about the level of central bank involvement in modeling the macroeconomic climate is linked to financial market depth, with an impact on the functioning of the transmission mechanism. The characteristics linked to the issue of market depth can produce a series of metamorphosis which either represent an obstacles in the way of an efficient monetary policy, either on the contrary, help the central bank have more control over the economic environment. From the first category, we are mentioning the higher difficulty of understanding the subtle mechanisms which ensure the functioning of the markets, the risen sensitivity of the economy to external destabilizing factors involved by developed markets, the extra resources that the central bank needs to use in order to diminish the market volatility and, last but not least, the higher degree of esoterism of financial products which determines the market evolution and the extra need to promote an adequate regulatory policy. In counterparty, there are also effects that are beneficial to monetary policy implied by deep financial markets. Among these, the wider arsenal of monetary instruments which the central bank can use, a better

absorption of capital flows which, instead of accumulating in the banking system, are distributed more uniformly in the economy, and a better control exerted by the monetary authority through changes in nominal interest rates due to the wider variety of saving and credit instruments, which strengthen the interest rate transmission channel (Singh, 2011).

The picture describing the need for action is completed by aspects regarding the homogeneity of the economy, in a mundellian understanding. Relevant are key elements like imperfections with regard to the work force mobility, territorial differences when it comes to adopting and applying fiscal policy, differences in legislation and different mentalities of economic agents for different areas linked to the ratio between consumption and savings, risk aversion and its impact on investments, social values, the structure of consumption expenses and the way expectations are being formed. The presence of territorial heterogeneity in these aspects puts pressure on the central bank, suggesting the need of using monetary policy for overcoming a lack of uniformity which can lead to suboptimal economic outcomes in different areas.

All these elements are modeling the monetary behavior of the central bank through the changes they bring in the structure and functioning of the transmission mechanism, thus altering the transformation function between monetary policy decisions and targeted macroeconomic variables. Even though these influences are diverse, it can be observed that, taking a broader view, they converge towards indicating the need of a more active role of the central bank. Such an interventionist role seems to be necessary especially during recessions, when, on one hand, the economy is suffering and does not have the required resources for a comeback without assistance, and on the other hand the central bank's monetary actions benefit from increased efficiency. Also, the presence of deep markets or of suboptimal monetary areas seem to request the necessity of an incisive monetary policy which, in an climate characterized by complex and often unpredictable interactions between the elements constituting the economic environment, can regulate economic activity, contribute to uniformization and promote measures meant to avoid the apparition of major shocks caused by late adjustments of over-liberalized markets.

Going further, we deconstructed the monetary policy transmission mechanism, concentrating on each of its constitutive elements. Within the transmission mechanism, we can identify five channels through which monetary policy decisions are being spread in the economy, affecting its diverse components with different speeds and intensities, eventually altering macroeconomic variables. These five channels are (Loayza, Schmidt-Hebbel, 2002: 4-6):

- the interest rate channel
- the expectations channel
- the credit channel
- the asset price channel
- the exchange rate channel

Each of these channels operate in different areas of the economic environment and imply their specific elements with the purpose of delivering monetary decisions towards macroeconomic variables, auctioning Maynly towards changing relevant values regarding inflation, employment, production, consumption and investments.

At the level of the interest rate channel, the capacity of the central bank to transmit strong monetary impulses is conditioned by the strength of the relationship that links the nominal interest rate (directly controlled by the central bank) to the interest rates for different maturities that are formed in the market and which are the rates by which the economy functions. This means that the presence of a strong interest rate channel constitutes an argument for action, the central bank, by timely using the monetary policy instruments which are relevant and of adequate intensities will be able to influence the economy in the desired fashion. On the contrary, a weak interest rate channel will interfere with the monetary decisions' capacity to deliver, through the interest rate channel, the expected effects, being a signal that the monetary authority should take a step back and reconsider its options.

Focusing our attention on the expectations channel, the crucial role that it plays in modeling the behavior of economic agents and implicitly for monetary policy permits us to add to the list of central bank instruments another tool, even if an informal one, namely the signals transmitted to the markets. Through signaling the way monetary policy will be conducted in the future, the central bank prepares the ground, influencing the markets in the desired direction and preparing them for what is to come, an action which is often decisive for accomplishing monetary policy objectives, including for exiting what economic literature calls „the liquidity trap". These actions need however to be directly corelated with the degree of credibility of the central bank, as the amrket reaction to its signals depends on the perception regarding the

monetary authoritie's capacity to act in conformity with what it declares and with the targets it sets. In this context, the efficient administration of economic impulses transmitted through the expectations channel represent a key element in the central bank's activity, being at the base of all other actions it undertakes. In consequence, the incapacity to use and control this channel invariably leads to a derutating monetary policy, its collateral adverse effects even being able to overcome the sought positive effects. This being said, when formulating the answer regarding the degree to which the central bank interferes with the economy, special attention needs to be given to the aspects linked to the expectations channel.

The credit channel probably constitutes the most direct link between monetary policy actions and the aspects of the private economic environment, transmitting central bank decision in the sensitive area of relationships that are being established between economic agents and the banking system, their Mayn financing source. Through the credit channel, the monetary policy decision taken by the central bank affects both components of the financing transaction. The supply side is being modified through the effect of minimum reserve requirements on the quantity of funds available for financing and on the costs, real or of opportunity, which originate from the interest rates set by the central bank for different facilities, costs which are incurred by the commercial bank and which will reflect in the interest rates charged to the economic agents it finances. On the other hand, the capacity of companies to guarantee their credits affects the demand for financing through the banking system, as the demand that does not meet certain conditions dictated by the bank's risk policy can only be financed at higher interest rates, which changes the structure of the demand both from a quantitative and a qualitative point of view.

From this perspective, the spreading of monetary policy effects through the credit channel constitutes a sensitive point in formulating an answer regarding the optimal level of implication of the monetary authority in tha economy, as it irepresents the way in which the central banl interferes with a financial market, in this case the credit market. In this way, the context for a doctrinary dispute regarding market efficiency and a predicted inferior outcome for un-totally free markets is being formed. Even so, the extreme solution in which the central bank entirely gives up its prerogatives in modelling the relationship between the economy and the banking system is unconcieveble. More, if perfect competition is not present, the mediating role is one that needs to be seriosuly assumed, especially when the mediation is not strictly between the holder of funds and the entity using the funds, but is coraborated with the whole picture that

the central bank has over the economy and the dangers that over- or under-financing it pose. Consequently, the mechanisms that ensure the functioning of the credit channel plea for an active monetray policy which, in an unintrusive manner, can help the economy accomplish objectives that are broader than strictly obtaining an immediate profit.

The asset prices represent an important factor in unfolding economic processes, being in a tight connection with the generation of demand that translates in the rise of the investment and employmentlevels. The channel through which monetary policy decisions influence, by using the asset prices, these key macroeconomic variables can be divided in two components. The first such component is represented by the ratio bewteen a company's market value and its replacement cost of capital (called Tobin's q Value), with all the implications that this ratio has over the activity on the mergers and aquisitions market and its alternative of green field investments, which generate extra consumption and workplaces. The second component is reffering to the effect of wealth on consumption and entiles a high degree of interaction with socio-cultural factors which shape households' economic decisions, reason foe which it represents an important differetiating factor between economic areas. In fact, the asset prices are generally sensitive to a large series of local influences, many of these being generated by expectations, mentalities or other difficult to objectivley evaluate factors. This state of fact implies on one hand a risen risk of going off the tracks due to unrealistic evaluations or expectatios, and on the other hand it burdens the efficient functioning of markets in the sense proposed by Fama (1970). So, even if confronted by a compex and difficult to evaluate environment, the central bank can not afford to adopt a passive attitude, but on the contrary, conscious of the fact that nor every action will have better consequences than inaction, must deeply understand the paritcularities of the asset price channel and find the monetary solutions which fit with everey given scenario.

The fifth channel of the monetary policy transmission mechanism, which governs the effects delivered through the exchange rate offers the central bank more options for action. Howeverm in choosing its strategy, the central bank must take into consideration that actions like direct intervention on foreign exchange markets with the purpose of artificially increasing externa competitivity of the economy will have negative effects on the long term which will surpass the unsustainable short term benefits. This does not however mean that the central bank must never intervene on foreign exchange markets, as such an intervention may be jsutified in

the case in which it targets the removal of a competitive disadvantage which is considered to be unjustified from a fundamental point of view, as was the case of the Swiss Central Bank intervention form 2011. Besides the direct intervention on the foreing exchange market, the central bank can influence capital flows by controlling the interest rate, which represents a viable intrument as long as the altered interest rate level does not produce negative effects which are spread through other transmission channel which overpass the advantages delivered thorugh the exchange rate channel. Last but not least, the wheight that the interest channel has in the monetary policy transmission mechanism is broadly determined by the degree of openness of the economy, which means that, in an open economy, the central bank will have more reason to intensly use the exchange rate channel in oreder to accomplish its set objectives.

The Influence of External Factors

Beyond the processes that take place along its channels, a very important aspect regarding the capacity of the transmission mechanism to effectively and efficiently spread central bank monetary policy decisions is constituted by the influences exerted by external factors, i.e., the factors the fall outside the monetary authorities' area of control. Exogenous elements, as general changes in the global economy, shocks in the prices of Mayn commodities, volatility of financial markets or the fiscal policy promoted by the national government (which influences the same set of macroeconomic variables targeted by monetary policy) can produce mutations in the way of functioning of the economy in general and the transmission channels in particular. This situation may often determine the central bank to adopt a defensive position, obliging it to respond through its monetary policy to negative pressures exerted by external factors on the economical environment. In consequence, in the context of a ever more pronounced global economic integration, the central bank needs to permanently monitor the apparition, evolution and consequences of external factors on the national economy, learning in the same time to constantly adapt its strategy to the modifications they induce.

Conclusions

After analyzing the monetary policy transmission mechanism, both in general and by studying each of its constitutive channels, we find little elements to plea for a strategy based, form a principles perspective, on a reduced central bank monetary activity. On the contrary, the high complexity of the way in which the third millennia's economies function, augmented by the ever rising exposure to the effects of stronger and stronger external factors, makes the auto-equilibrium achievement process of the economy, as seen by neoliberals in the second half of the 20th century, impossible to achieve. All these indicate the need of a more active central bank attitude, who needs to use an ever more generous (but also more esoteric) arsenal of monetary policy instruments in order to keep the economy on track.

PHD THESIS REFFERENCES

- **Books**

1. Acocella, N., Di Bartolomeo, G. and Hughes Hallett, A. (2012) *The Theory of Economic Policy in a Strategic Context*, Cambridge University Press, Cambridge
2. Aglietta, M. (1999) *L'economie mondiale 2000*, La Decouverte, Paris
3. Bădulescu, Daniel (2007) *Globalizarea şi băncile. Cu o privire specială asupra Europei Centrale şi de Est şi asupra României*, Editura Economică, București
4. Blanchard, Olivier (2006) *Macroeconomics,* 4th Edition, Perason Prentice Hall
5. Blinder, Alan S. (1999) *Central Banking in Theory and Practice*, 2nd Edition, MIT Press, Cambridge
6. Brealy, R., Myers, S. and Allen, F. (2006) *Corporate Finance*, 8th Edition, McGraw-Hill, New York

7. Croitoru, Lucian (2012) *Politica monetară: ipostaze neconvenționale*, Curtea Veche, București
8. Dan, Horațiu Sorin (2013) *Mecanismul de transmisie a politicii monetare*, ISBN: 978-973-53-1063-9, Risoprint, Cluj-Napoca
9. Feenstra, Robert C. and Taylor, Alan M. (2008) *International Macroeconomics,* Worth Publishers, New York
10. Fry, Julius and Mahadeva, Roger (2000) *Key Issues in the Choice of Monetary Policy Framwork*, Routledge, London
11. Isărescu, Mugur (2006 a) *Reflecții economice, Politici ale Băncii Naționale a României (vol II,)*, Academia Română, Centrul Român de Economie Comparatã and Consens, București
12. Isărescu, Mugur (2006 b) *Reflecții economice: piețe, bani, bănci (vol I),* Academia Română, Centrul Român de Economie Comparatã and Consens, București, 2006 (b)
13. Isărescu, Mugur (2006) *Reflecții economice: politici ale Băncii Naționale*, Academia Română, Centrul Român de Economie Comparatã and Consens, București
14. Kahneman, Daniel (2012) *Gândire rapidă, gândire lentă,* Publica, București
15. Keynes, John Maynard (2009) *Teoria generală a ocupării forței de muncă, a dobânzii and a banilor*, Publica, București
16. Krugman, Paul (2009) *Intoarcerea economiei declinului and criza din 2008*, Publica, București
17. Luțaș, Mihaela (2004) *Uniunea Europeană. Mecanismul integrării*, Dacia, Cluj-Napoca
18. Mishkin Frederic S. and Eakins Stanley G. (2006) *Financial Markets and Institutions,* 5th edition, Pearson
19. Porter, Michael (1990) *The Competitive Advantage of Nations,* Free Press, New York
20. Preston, A.J. and A.R. Pagan (1982), *The theory of economic policy. Statics and dynamics*, Cambridge University Press, Cambridge
21. Roubini, Nouriel and Mihm, Stephen (2010) *Economia crizelor,* Publica, București
22. Smith, Adam (2011) *Avuția națiunilor*, Publica, București

23. Stiglitz, Joseph E. (2010) *In cădere liberă*, Publica, București
24. Tinbergen, Jan (1952) *On the Theory of Economic Policy,* North Holland Publishing Company, Amsterdam, http://repub.eur.nl/res/pub/15884/, [11 December 2012]
25. Trenca, Ioan and Balogh, Peter (2013) *Macroprudențialitate bancară*, Casa Cărții de Știință, Cluj-Napoca
26. Wyn, M., Katz, M. and Rosen, H (2006) *Microeconomics,* European Edition, McGraw Hill, London

- **Articles and Studies**

1. Adam, Klaus and Billi, M. R. (2004) *Optimal Monetary Policy Under Commitment With a Zero Bound on Nominal Interest Rates,* European Central Bank Working Paper Series No. 377, July, http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp377.pdf, [27 July 2012]
2. Alexiou, Constantinos and Nellis, Joseph (2012) *Is the Euro a Defunct Currency?,* International Journal of Economics and Financial Issues, Vol. 2, No. 3, pp. 296-303
3. Antohi, D., Udrea, I. and Braun, H. (2003), *Mecanismul de transmisie a politicii monetare in Romania,* Caiete de Studii BNR, Nr. 13, January
4. Awad, A.M. and Goodwin, B.K. (1998) *Dynamic Linkages Among Real Interest Rates in International Capital Markets*, Journal of International Money and Finance, Vol. 17, pp. 881-907
5. Bahmani-Oskooee, Mohsen and Das, S. P. (1985) *Transaction Costs and the Interest Parity Theorem*, Journal of Political Economy, August 1985, pp. 793-799
6. Bayoumi, T. and Swiston, A. (2007) *Foreign Entanglements: Estimating the Source and Size of Spillovers Across Industrial Countries*, IMF Working Paper WP/07/182, http://www.imf.org/external/pubs/ft/wp/2007/wp07182.pdf, [25 April 2012]
7. Bernanke, Ben S. (2009) “The Crisis and the Policy Response”, *The Stamp Lecture at the London School of Economics*, January 2009,

http://www.federalreserve.gov/newsevents/speech/bernanke20090113a.htm [7 March 2013]

8. Bernanke, Ben S. and Gertler, Mark (1995) *Inside the Black Box: The Credit Channel of Monetary Transmission Mechanism,* Journal of Economic Perspectives, Vol. 4

9. Bessinger, Thomas (2001) *Oil Price Shocks and the NAIRU*, University of Regensburg Discussion Paper No. 354, February, http://www.researchgate.net/publication/29862795_Oil_Price_Shocks_and_the_NAIRU, [10 May 2012]

10. Blanchard, Olivier (2007) *Adjustment within the Euro: The Difficult Case of Portugal,* Portuguese Economic Journal, Vol. 6(1), pp. 1-21

11. Blanchard, Olivier and Gali, Jordi (2007) *Real Wage Rigidities and the New Keynesian Mode,* Journal of Money, Credit, and Banking, Vol. 39 (s1), pp. 35–65

12. Blinder, Alan S. (2006) "*Monetary policy today: sixteen questions and about twelve answers*," CEPS Working Paper No. 129, Banco de España Conference on "Central Banks in the 21st Century," Madrid, June 8-9, 2006, http://www.princeton.edu/ceps/workingpapers/129blinder.pdf, [7 July 2012]

13. Blinder, Alan S. (2010) *Quantitative Easing: Entrance and Exit Strategies*, Princeton University CEPS Working Paper No. 204, March, http://www.princeton.edu/ceps/workingpapers/204blinder.pdf, [23 January 2013]

14. Boivin, Jean, Kiley, T. M. and Mishkin S. Frederic (2010) *How has the Monetary Transmission Mechanism Evolved over Time?,* Working Paper 15879, April, National Beaureau of Economic Research, Cambridge, Massachusetts, USA, http://www.federalreserve.gov/pubs/feds/2010/201026/201026pap.pdf, [5 May 2012]

15. Breedon, F., Rime, D. and Vitale, P. (2010) *A Transaction Data Study of the Forward Bias Puzzle*, Discussion Paper 7791, CEPR, http://newyorkfed.org/research/conference/2010/cb/Breedon_Rime_Vitale.pdf, [17 June 2012]

16. Bremnes, H., Gjerde, O. and Saettem, F. (2001) *Linkages Among Interest Rates in the United States, Germany and Norway*, Scandinavian Journal of Economics, Vol. 103, No.

1, pp. 127-145

17. Bris, A., Koskinen, Y. and Nilsson, M. (2003) *The Euro is Good After all: Evidence from Corporate Valuations,* CEPR Discussion Paper No. 3910, http://www.snee.org/filer/papers/174.pdf, [15 May 2012]
18. Broyer, S., Caffet, J. C. and Martin, V. D. (2011) *Low labour mobility is more than ever an obstacle to euro-zone cohesion,* Flash Economix, Natixis Economic Research, No. 24, http://cib.natixis.com/flushdoc.aspx?id=56192, [3 April 2013]
19. Campolmi, A. and Faia, E. (2011) *Labor Market Institutions and Inflation Volatility in the Euro Area*, Journal of Economic Dynamics and Control, Elsevier, Vol. 35(5), pp. 793-812
20. Case, Karl E., Quigley, J. M. and Shiller R. J. (2005) *Comparing Wealth Effects: The Stock Market vs. The Housing Market*, Advances in Macroeconomics, Vol. 5, No. 1, Article 1, http://www.econ.yale.edu/~shiller/pubs/p1181.pdf, [21 January 2013]
21. Catte, P., Girouard N., Price R. and Andre C. (2004) *Housing markets, wealth and the business cycle*, OECD Economics Department Working Papers No. 394, http://ec.europa.eu/economy_finance/events/2005/bxlworkshop2111/contributions/girouard_paper_en.pdf, 21 June 2011
22. Cecchetti, Stephen G. (2000) *Making Monetary Policy: Objectives and Rules*, Oxford Review of Economic Policy, Oxford University Press, Vol. 16(4), pp. 43-59
23. Clare, A. and Courtenay, R. (2001) *Assessing the Impact of Macroeconomic News Announcements on Securities Prices Under Different Monetary Policy Regimes*, Bank of England Working Paper No. 125, http://www.bankofengland.co.uk/publications/Documents/workingpapers/wp125.pdf, [22 June 2012]
24. Clarida, Richard, Gali, J. and Gertler, M. (1999) *The Science of Monetary Policy: A New Keynesian Perspective,* Journal of Economic Literature, Vol. XXXVII (December 1999), pp. 1661–1707
25. Clinton, Kevin (1988) *Transactions Costs and Covered Interest Arbitrage: Theory and Evidence*, Journal of Political Economy, April 1988, pp. 358-370

26. Cocriş Vasile and Nucu, Anca Elena (2013) *Interest rate channel in Romania: assessing the effectiveness transmission of monetary policy impulses to inflation and economic growth,* Theoretical and Applied Economics, Vol. XX , No. 2, pp. 37-50
27. Dan, Horațiu (2013) *External Factors for the Monetary Policy Transmission Mechanism*, Analele Universității din Oradea. Științe Economice, Nr. 1 / 2013, about to be published
28. Dan, Horațiu (2013) *The Asset Price Channel and its Role in Monetary Policy Transmission*, Analele Universității din Oradea. Științe Economice, Nr. 1 / 2013, about to be published
29. Dan, Horațiu (2013) *The Exchange Rate Channel and its Role Within The Monetary Policy Transmission Mechanism*, Studia Europaea, Nr. 3/ 2013, about to be published
30. Davis, M. and Palumbo, M (2001) A *primer on the economics and time-series econometrics of wealth effects,* Federal Reserve Board of Governors, Finance and Economics Discussion Paper No. 09, http://www.federalreserve.gov/pubs/feds/2001/200109/200109pap.pdf, [17 March 2011]
31. Demertzis, Maria and Hughes Hallett, Andrew (2007) *Central Bank Transparency in Theory and Practice,* Journal of Macroeconomics, Vol. 29(4), pp. 760-789
32. Diamond, D.B. and Lea, M.J. (1992) *Housing Finance in Developed Countries: An International Comparison of Efficiency,* Journal of Housing Research, Vol. 3(1), pp. 1–271.
33. Dincer, Nergiz and Eichengreen, Barry (2009) *Bank Transparency: Causes, Consequences and Updates,* National Bureau Of Economic Research, Working Paper 14791, http://www.nber.org/papers/w14791.pdf?new_window=1, [3 May 2012]
34. Dixit, Avinash (2012) *Paul Samuelson's Legacy*, The Annual Reviews of Economics, Vol. 4
35. Dolado, J. and Maria-Dolores, R. (2001) *An empirical study of the cyclical effects of monetary policy in Spain (1977–1997*), Investigaciones Economicas, Vol. 25 (1), pp. 3-30, http://www.fundacionsepi.es/revistas/paperArchive/Ene2001/v25i1a1.pdf, [2 February 2013]

36. Ehrmann, M. and Fratzcher, M. (2004) *Tacking Stock: Monetary Policy Transmission to Equity Markets*, European Central Bank, Working Paper No. 354, http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp354.pdf, [13 July 2102]
37. Ehrmann, M., Fratzscher, M. and Rigobon, R. (2005) *Stocks, Bonds, Money Markets and Exchange Rates: Measuring International Financial Transmission*, ECB Working Paper, No. 452, http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp452.pdf, [7 May 2012]
38. Epstein, Gerald (2001) "Financialization, Rentier Interests, and Central Bank Policy", *PERI Conference on "Financialization of the World Economy",* December 7-8, 2001, University of Massachusetts, Amherst, http://www.peri.umass.edu/fileadmin/pdf/financial/fin_Epstein.pdf, [2 November 2012]
39. Fama, Eugene (1970) *Efficient Capital Markets: A Review of Theory and Empirical Work*, Journal of Finance 25 (2), pp. 383–417
40. Fatas, Antonio (1998) *Does EMU Need a Fiscal Federation?,* Economic Policy, Vol. 13, No. 26, pp. 163-203
41. Faust, J. and Stevensson L., *Transparency and Credibility: Monetary Policy with unobservable goals*, International Economic Review, Vol. 42, No. 2, 2001
42. Ferreira de Mendoca, Helder and Simao Filho, Jose (2007) *Economic Transparency and Effectiveness of Monetary Policy,* Journal of Economic Studies, Vol. 34, No. 6
43. Friedman Milton (1968) *The Role of Monetary Policy,* The American Economic Review, Vol. 58, No. 1, March
44. Friedman, Benjamin (2008) "What Objectives for Monetary Policy?", in *Central Banks as Economic Institutions,* Cheltenham: Edward Elgar
45. Friedman, Milton (1968) *The role of monetary policy*, American Economic Review, Vol. 68 (1), pp. 1–17
46. Gale, W. and Sabelhaus, J. (1999) *Perspectives on the household savings rate,* Brookings Papers on Economic Activity 1/1999, http://www.ssc.wisc.edu/~scholz/Teaching_742/Gale_Sabelhaus.pdf, [6 April 2012]
47. Garcia, R. and Schaller, H. (2002) "Are the effects of monetary policy asymmetric?", *Economic Inquiry*, Western Economic Association International, Vol. 40(1), pp. 102-119

48. Gokarn, Subir and Singh, Bhupal (2011) “External factors and monetary policy: Indian evidence”, in *The influence of external factors on monetary policy frameworks and operations*, BIS Papers No 57, Monetary and Economic Department September 2011
49. Gray, Simon (2011) *Central Bank Balances and Reserve Requirements,* IMF Working Paper WP/11/36
50. Greenspan, Alan (1997) *Rules vs. discretionary monetary policy,* 15th Anniversary Conference of the Center for Economic Policy Research at Stanford University, Stanford, California, September 5, 1997, http://www.federalreserve.gov/boarddocs/speeches/1997/19970905.htm, [7 June 2012
51. Icovileo, Matteo and Minetti, Raoul (2006) *The Credit Channel of Monetary Policy: Evidence from the Housing Market,* Journal of Macroeconomics, Vol. 30(1), pp. 69-96
52. Ireland, Peter N. (2005) *The Monetary Transmission Mechanism,* Federal Reserve Bank of Boston, Working Paper 06-1, November 2005 Version, http://www.bos.frb.org/economic/wp/wp2006/wp0601.pdf, [14 May 2012]
53. Issing, O. (2000) “Europe: Common Money - Political Union?” *Economic Affairs*, No. 20, Vol. 1, pp. 33-39.
54. Jorgenson, Dale (1969) *Capital Theory and Investment Behavior*, American Economic Review, Papers and Proceedings, May 1963, No. 53, pp. 247-259
55. Joyce, Michael, Miles, D., Scott A. and Vayanos, D. (2012) *Quantitative Easing and Unconventional Monetary Policy – An Introduction,* The Economic Journal, No. 122, pp. 271– 288
56. Kahneman Daniel and Tversky Amos (1983) *Choices, Values and Frames*, American Psychologist, No. 39, pp. 341-350
57. Kakes, J (2000) “Monetary Policy and Business Cycle Asymmetry in Germany”, *Kredit und Kapital*, Vol. 33 (2), pp. 182-197
58. Kaldor, N. (1980). "Monetarism and UK economic policy", *Cambridge Journal of Economics,* Vol. 4, pp. 293–318.

59. Kenen, Peter (1969) "The Theory of Optimum Currency Areas: An Eclectic View", in R.Mundell and A. Swoboda (eds.), *Monetary Problems of the International Economy*, The University of Chicago Press

60. Kenen, Peter (2003) “What we can Learn from the Theory of Optimum Currency Areas”, *Submissions on EMU from Leading Academics*, HM Treasury, pp. 147-160

61. Kiley, M. (2000) *Identifying the effect of stock market wealth on consumption: pitfall and new evidence,* Board of Governors of the Federal Reserve System, Economic Policy Review, Vol. 5, pp. 29-52

62. Kotze, Antonie (2005) *Stock Price Volatility: a primer*, The South African Financial Markets Journal, April 2005, 1st Online Edition, http://www.quantonline.co.za/documents/Volatility.pdf pe 1 March 2013, [27 January 2013]

63. Krugman, Paul (1998) *It's Baaack! Japan's Slump and the Return of the Liquidity Trap*, Brookings Papers on Economic Activity, http://web.mit.edu/krugman/www/bpea_jp.pdf , [29 October 2012]

64. Krugman, Paul (2012). “Revenge of the optimum currency area.” The New York Times, http://krugman.blogs.nytimes.com/2012/06/24/revenge-of-the-optimum-currency-area/, [5 March 2013]

65. Lea, M.J., Welter R. and Dubel, A. (1997) S*tudy on Mortgage Credit in The European Economic Area Structure of the Sector and Application of the Rules in the Directives 87/102 and 90/88*, Final Report on Tender No. XXIV/96/U6/21, http://scholar.googleusercontent.com/scholar?q=cache:ogZBIJmoVuEJ:scholar.google.com/&hl=ro&as_sdt=0,5, [25 March 2013]

66. Levi , Maurice and Makin, John (1980) *Inflation Uncertainty and the Phillips Curve: Some Empirical Evidence,* The American Economic Review, American Economic Association, Vol. 70, No. 5

67. Levin, A., Natalucci, F. and Piger, J. (2004) *The Macroeconomic Effects of Inflation Targeting,* Federal Reserve Bank of St. Louis Review*,* Vol. 86, pp. 51–80

68. Loayza, Norman and Schmidt-Hebbel, K. (2002) *Monetary Policy Functions and Transmission Mechanisms: An Overview,* in Norman Loayza and Klaus Schmidt Hebbel (eds.), Monetary Policy: Rules and Transmission Mechanisms, Santiago: Central Bank of Chile

69. Lucas , Robert and Sargent, Thomas (1978) *After Keynesian Macroeconomics,* published in the conference volume "After the Phillips Curve: Persistance of High Inflation and High Unemployment", Edgartown

70. Mateuţ, Simona, Bourgheas, S. and Mizen, Paul (2006) *Trade Credit, Bank Lending and Monetary Policy Transmission,* European Economic Review, Vol. 50, No. 3, pp. 603–629

71. Meier, Simone and Doyle, Dara (2010) *Stiglitz Says European Economy at Risk of Double-Dip Recession,* Bloomberg 24 August 2010, ediția electronică, http://www.bloomberg.com/news/2010-08-24/stiglitz-says-government-cuts-set-to-push-europe-into-double-dip-recession.html, [17 May 2012]

72. Mihov, Ilian (2001) *Monetary Policy Implementation and Transmission in the European Monetary Union*, Economic Policy, Vol. 16, No. 33, pp. 369–406

73. Milea, Camelia (2009) *Cadrul operaţional al politicii monetare a Băncii Centrale Europene şi a Băncii Naţionale a României,* Studii Financiare, Vol. 13, Nr. 2

74. Mishkin, Frederic S. (1995) *Symposium on the Monetary Transmission Mechanism,* The Journal of Economic Perspectives, Vol. 9, No. 4, pp. 3-10

75. Mishkin, Frederic S. (2007) *Housing and the Monetary Transmission Mechanism*, Federal Reserve Bank of Kansas City, *Jackson Hole Symposium*, pp. 359- 413, http://www.federalreserve.gov/pubs/feds/2007/200740/200740pap.pdf, [29 January 2013]

76. Mishra, Prachi and Montiel, Peter (2012) *How Effective Is Monetary Transmission in Low-Income Countries? A Survey of the Empirical Evidence*, IMF Working Papers 12/143, International Monetary Fund, http://www.imf.org/external/pubs/ft/wp/2012/wp12143.pdf, [4 February 2013]

77. Modigliani, Franco (1971) "Monetary Policy and Consumption", in *Consumer Spending and Monetary Policy: the Linkages*, Federal Reserve Bank of Boston, Conference Series, No. 5, pp. 9-84
78. Mundell, Robert (1961) *A theory of Optimum Currency Areas*, American Economic Review, No. 51, Vol. 4
79. Mundell, Robert, (2013) *Robert Mundell: Euro is here to stay,* interviu publicat in Financial Post in 12 2012/06/08, http://opinion.financialpost.com/2012/06/08/robert-mundell-euro-is-here-to-stay/ [7 March 2013]
80. Nielsen, Jeffrey H. (2002) *Trade Credit and the Bank Lending Channel,* Journal of Money, Credit and Banking, Vol. 34, No. 1
81. Peersman, Gert and Smets Frank (2002) *"*Are the effects of monetary policy in the euro area greater in recessions than in booms?*",* in *Monetary Transmissiom in Diverse Economies*, Chapter 2, Mahadeve , L. and Sinclair, P. (eds.), Cambridge University Press, http://www.ecb.int/pub/scientific/wps/author/html/author200.en.html, [8 December 2010]
82. Phelps, Edmund S. (1967) *Phillips Curves, Expectations of Inflation and Optimal Unemployment over Time*, Economica, New Series, Vol. 34, No. 135, (Aug., 1967), pp. 254–281
83. Phillips, A. W. (1958) *The Relationship between Unemployment and the Rate of Change of Money Wages in the United Kingdom 1861-1957,*Economica, Vol. 25 (100), pp. 283–299
84. Rankin, Niel (1998) *How Does Uncertainty about Future Fiscal Policy Affect Current Macroeconomic Variables?,* Scandinavian Journal of Economics, Vol. 100, No. 2, pp. 473– 494
85. Rissman, E. (1986) "What is the natural rate of unemployment?", *Economic Perspectives*, Vol. 10, No. 5, pp. 3–17
86. Rodriguez, Carlos Alfredo (2000) *On the Degree of Openness of an Open Economy,* http://www.ucema.edu.ar/u/car/Advantage.PDF, [17 February 2013]

87. Russell, Steven (1992) *Understanding the Term Structure of Interest Rates: The Expectations Theory*, Federal Reserve Bank of St. Louis Review, July/August 1992, Vol. 74, No. 4, pp. 36-50
88. Skudelny, Frauke (2009) *Euro Area private consumption: is there a role for housing wealth effects?*, Working Paper, No 1057, European Central Bank , http://www.ecb.int/pub/pdf/scpwps/ecbwp1057.pdf, [3 March 2012]
89. Sousa Ricardo M. (2009) *Wealth effects on consumption. Evidence from the euro area,* European Central Bank, Working paper No. 1050 / May 2009, http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1050.pdf, [5 March 2012]
90. Subbarao Duvvuri, (2012) *Quantitative easing – unconventional policy response to the financial crisis,* intr-un discurs susținut cu ocazia vizieti lui Ben Bernanke la sediul Băncii Centrale a Indiei, http://www.bis.org/review/r121011g.pdf, [12 January 2013]
91. Taylor, John B. (1995) *The Monetary Transmission Mechanism: An Empirical Framework,* The Journal of Economic Perspectives, Vol. 9 (4), pp.11-26
92. Thornton, Daniel L. (1989) *Tests of Covered Interest Rate Parity,* Federal Reserve Bank of St. Louis Review, July/August 1989 , pp. 55-66
93. Tobin, James (1969) *A General Equilibrium Approach to Monetary Theory,* Journal of Money, Credit and Banking, Vol. 1, No. 1, pp. 15-29
94. Topel, Robert and Rosen, Sherwin (1988) *Housing Investment in the United States*, The Journal of Political Economy, Vol. 96, No. 4
95. Tudor, C.D. (2011) *Corporate Governance, the Perception of Corporate Governance and the Connection to Firm Performance; Evidence from Romania*, https://iweb.cerge-ei.cz/pdf/gdn/RRCXI_84_paper_01.pdf [17.04.2013]
96. Tversky, Amos and Kahneman, Daniel (1974) *Judgment under Uncertainty: Heuristics and Biases,* Science, New Series, Vol. 185, No. 4157., pp. 1124-1131
97. Van der Cruijsen, C., Eijffinger, S. and Hoogduin, L.(2010) *Optimal Central Bank Transparency*, Journal of International Money and Finance, Elsevier, Vol. 29(8), pp. 1482-1507

98. Weil, David N. (2007) "Fiscal Policy", in *The Fortune Encyclopedia of Economics,* 2nd edition, Liberty Fund Inc.

99. Williamson, J. (1989) "What Washington Means by Policy Reform", in Williamson, J. (ed.) *Latin American Readjustment: How Much has Happened*, Institute for International Economics, Washington

100. Woodford, Michael (2005) *Central Bank Communication and Policy Effectiveness,* NBER Working Paper No. 11898, National Bureau of Economic Research, http://www.nber.org/papers/w11898.pdf?new_window=1, [6 July 2012]

- **Publications of Institutions / Data Issued by Institutions**

1. Bank of England, http://www.bankofengland.co.uk/monetarypolicy/Documents/pdf/qe-pamphlet.pdf, [5 March 2012]
2. European Central Bank , *Monthly Bulletin December 2009*,
3. European Central Bank, http://www.ecb.int/ecb/orga/tasks/html/index.en.html, [11 December 2012]
4. European Central Bank, *Monthly Bulletin August 2008,* http://www.ecb.europa.eu/pub/pdf/other/pp85-98mb200808en.pdf, [7 May 2011]
5. European Central Bank, *Monthly Bulletin July 2000*, http://www.ecb.europa.eu/pub/pdf/mobu/mb200007en.pdf, [21 December 2010]
6. European Central Bank, *Monthly Bulletin May 2010,* http://www.ecb.europa.eu/pub/pdf/other/mb201005en_pp85-98en.pdf, [6 September 2011]
7. European Central Bank, *Monthly Bulletin October 2009,* http://www.ecb.europa.eu/pub/pdf/other/art1_mb200910_pp63-80en.pdf, [21 November 2011]
8. European Central Bank, *Monthly Bulletin October 2010,* http://www.ecb.europa.eu/pub/pdf/other/art1_mb201010en_pp59-74en.pdf, [6 September

2011]

9. European Central Bank, http://www.ecb.europa.eu/mopo/intro/benefits/html/index.en.html, [11 Apr 2012]
10. European Central Bank, http://www.ecb.europa.eu/mopo/intro/transmission/html/index.en.html, [15 November 2010]
11. European Central Bank, http://www.ecb.europa.eu/mopo/intro/transmission/html/index.en.html, [7 November 2010]
12. European Central Bank, http://www.ecb.int/pub/pdf/mobu/mb200912en.pdf, [7 July 2011]
13. European Central Bank, *The Implementation of Monetary Policy in the Euro Area November 2008*, http://www.ecb.int/pub/pdf/other/gendoc2008en.pdf, [15 March 2011]
14. European Central Bank¸ http://www.ecb.europa.eu/mopo/implement/intro/html/index.en.html, [14 December 2012]
15. Banca de Rezerva a Australiei, http://www.rba.gov.au/monetary-policy/index.html, [10 December 2012]
16. Banca Națională a României, http://www.bnr.ro/Mecanismul-de-transmisie-a-politicii-monetare--712.aspx, [7 November 2011]
17. The European Comission (2009) *Economic Crisis in Europe: Causes, Consequences and Responses European Economy*, European Economy 7/2009, http://ec.europa.eu/economy_finance/publications/publication15887_en.pdf, [17 September 2012]
18. *European Central Bank Official Glossary*, http://www.ecb.int/home/glossary/html/act1r.en.html, [19 December 2012]
19. The KOF Economic Globalization Index 2013, http://globalization.kof.ethz.ch/static/pdf/rankings_2013.pdf, [14 March 2013]

20. International Accounting Standard 32 (2013), http://www.ifrs.org/IFRSs/Pages/IAS.aspx [11 March 2013]
21. International Monetary Fund (2004) *Compilation Guide on Financial Soundness Indicators*, IMF, Washington DC, Appendix VII, Glossary, www.imf.org, [7 May 2012]
22. Parlamentul României, *Legea nr. 312/2004 privind Statutul BNR,* http://www.legex.ro/Legea-312-2004-43592.aspx, [4 December 2012]
23. Parlamentul României, *Legea nr. 312/2004, art. 2,* http://www.legex.ro/Legea-312-2004-43592.aspx, [7 April 2013]
24. Phillip Hildebrandt, Swiss National Bank (2011) *Short statement by Philipp Hildebrand on 6 September 2011 with regard to the introduction of a minimum Swiss franc exchange rate against the euro*, http://www.snb.ch/en/mmr/speeches/id/ref_20110906_pmh/source/ref_20110906_pmh.en.pdf, [25 January 2013]
25. *International Accounting Standard (IAS 32),* www.ifrs.org, [21 December 2010]
26. The Federal Reserve (2005) *The Federal Reserve System. Purposes and Functions*, Board of Governors of the Federal Reserve System, 9th Edition, Washington D.C., http://www.federalreserve.gov/pf/pdf/pf_complete.pdf, [27 January 2012]
27. The Federal Reserve, http://www.federalreserve.gov/monetarypolicy/reservereq.htm , [24 March 2011]
28. The Federal Reserve, http://www.federalreserve.gov/monetarypolicy/reservereq.htm#table1, [8 February 2013]
29. Tratatul constituent al Comunitatii Europene, http://europa.eu/about-eu/basic-information/decision-making/treaties/index_ro.htm [01.03.2012]
30. Tratatului privind Uniunea Europeană (varianta consolidată), Art. 3, Alin. 3, http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2010:083:0047:020:ro:PDF, [7 May 2013]

- **Web Sites**

1. www.bankofengland.co.uk
2. www.bloomberg.org
3. www.bnr.ro
4. www.bos.frb.org
5. www.ecb.eu
6. www.europa.eu
7. www.federalreserve.gov
8. www.ifrs.org
9. www.imf.org
10. www.nber.org
11. www.rba.gov.au