

THE EFFECTS OF FINANCIAL INNOVATION AND DEVELOPMENT ON MONETARY POLICY

Ercan EKMEKCIOGLU

Kyrgyzstan Turkey Manas University
E-mail: ercan.ekmekcioglu@manas.edu.kg

Osman BARAK

Cankiri Karatekin University
E-mail: obarak@karatekin.edu.tr

—Abstract —

This paper focuses on the effects of financial development and innovations on monetary policy. Generally speaking, financial innovation refers to technological advances that facilitate better access to information, means of trading and payment, and to all the emergence of the new financial services and instruments. It also refers to the new forms of Organization and more complete and developed financial markets. Since the 1960's, through about 50 years of development, financial innovation has nearly become a global trend of financial development.

As will be noted later in this paper, for countries to be successful, financial innovation must provide improved services that will perfectly meet the needs of the financial system participants or reduce costs and risks. The objectives of this paper is therefore to critically analyze whether financial innovation actually affects monetary policy, and if so, to what extent.

Key Words: *Development, Financial Innovation, Monetary Policy.*

JEL Classification: O23, G19, E52

1. INTRODUCTION

According to the Speech by Eugenio Domingo Solans, who is Member of the Governing Council and of the Executive Board of the European Central Bank, delivered at the 38th SEACEN Governors Conference and 22nd Meeting of the SEACEN Board of Governors about "Structural Change and Growth Prospects in Asia—Challenges to Central Banking", Manila, 13 February 2003, he argues that despite all the existing differences between countries in the world on factors like regulatory framework and the IT infrastructure, there is always a convergence and therefore a commonality in the way e-finance spreads. This means that there is always a common pool of experience on which all countries whether emerging or

industrial, can draw for their future developments in terms of monetary policy. In this paper therefore, it is critically important to note the significance and importance of financial innovation for monetary policy. Though it is generally a very wide and broad topic, I this paper will discuss first the monetary policy and financial innovation.

The paper will then go in depth to provide some examples of the challenges that the road to financial innovation poses to monetary policy in terms of financing choices and investment products and payment especially in the socio technical stance. The paper also gives some examples of the relevance and importance of e-finance for monetary policy especially in the euro area.

As had been discussed earlier in the abstract, financial innovation includes all the advances of technology which facilitate faster access to information, means of proper payments and trading, and the clandestine emergence of new financial services and instruments, more developed and complete financial markets and most specifically, new forms of Organisation (Gelinas, 2009). Monetary policy was used as a very important and crucial tool by countries in improving the macro-economy and making the stability of the currency. However, when financial innovations started developing, as will be noted later in this paper, it caused the effect of monetary policy to weaken (Paul, 2003).

The appearance and the development of new institutions, markets and new tools sufficiently provided a very powerful driving force for the proper financial development of countries but whose challenges to the national macro-level could not be ignored (Joseph, 2001). This tremendously weakened the monetary policy. The process of financial innovation is always continuous and their in is very hard in practicality to grasp all its contours and becomes even more harder to predict the consequences it may cause (Richard, 2007).

This therefore means that financial development and innovation increases the risks of uncertainty to the environment of economics in which central banks in the world operate. However, as had been noted earlier, for such a process to be successful, financial development and innovation must substantially reduce risks and costs or provide a perfect and improved service that will fully meet the particular needs of the participants in the financial system (William, 2005).

As the most important, significant and effective macro-control policies of any country, in so far as they want to adapt to this situation of financial development and innovation, they have to make proper adjustments against the negative impacts of financial innovation, they have to improve their level of regulation and

control. They should put in place a system to control both size and scale of financial innovation and development.

2. FINANCIAL DEVELOPMENT AND INNOVATION

Financial development and innovation has also taken a great part in terms of payment. Development in payment systems and media create a very close substitute for the notes from the banks and thus affecting the core value and part of central banking (Karl, 2011). A perfect example is the use of debit and credit cards which allow for the application of electronic means of payment. This greatly substitutes payments by physical cash and speeds up the velocity of narrow money. Payment cards have also allowed for the issuance of electronic money transfer (e-money) which is seen to directly rival all physical cash in terms of small-value payments (Batra, 2005). For the purpose of this paper, e-money may be defined as an electronic store of monetary value on a technical device that can widely be used for making payments to more undertakings other than the issuer, which does not necessarily involve the use bank accounts in the process of transaction but acting as a prepaid bearer instrument (Dimitris, 2008).

The ECB, for example, greatly studied the issue of e-money in depth. What motivated the ECB was the concern and fear that the developments of e-money might fully endanger the function physical money as a proper unit of account for all the economic transactions. This therefore prompted the ECB to redeemably lay down a requirement in the use of e-money in what is now known as the European Union Legislation. This was to fully ensure that the unit of account function of physical money is preserved, and therefore holders of e-money can always exchange their money into banknotes as par. This was also done to ensure that the reserve base of the ECB's reserve requirement can also be extended to the issuers of e-money so as to treat in a similar way to the short-term bank deposits. The reserve requirements that were put in place also safeguard the effective of monetary policy (Radha, 2001).

It is also very possible for e-money to have a negative effect on the information content of the monetary variables. To counter this, the ECB always collects data and fully compiles statistics on e-money and it is therefore possible to monitor the great evolution of the phenomenon in an appropriate money. With this measures the ECB therefore does not expect its inalienable ability to maintain the stability of prices to be endangered by the electronic money development (Franklin, 2010).

Financial innovation and development on investment products also has great effects on monetary policy, which can't be ignored. In so far as the greater introduction of new instruments for financial investments purposes is concerned, new financial products which are emerging may lead to economic agents substituting money with different types of assets. This may potentially affect the information content of those assets used and even the demand of money. This comes into tune when those new instruments are very close to instruments with monetary character are also included in broader monetary aggregates. However, the negative effects of financial innovation on the monetary aggregates does not only affect close the substitutes which are very close to money but also the whole economy (Philip, 1999).

However, according to the standard finance theory which states that 'economic agents should hold diversified portfolios including assets with a varied spectrum of risk-return combinations and, partly related to this, of varying degrees of liquidity', the impact of financial development and innovation on monetary aggregates therefore can come about through the emergence of new instruments (John, 2009). Although the instruments may be risky and illiquid, may sufficiently offer a high return so as to motivate economic agents in order to substitute part of their holdings in terms of monetary assets for those alternative instruments. This can therefore have a destabilizing effects on the demand of money (Bansal, 2000).

However, by stating an example of the ECB, their policy is designed in a way that the monetary policy strategy is designed in the view that the decisions of monetary policy can take account of the consequences of financial development and innovation. The ECB therefore it can never react in a mechanistic way towards the monetary aggregates. It analyses carefully monetary developments and the content of their information for price stability. Also, by cross-checking carefully the information and content from monetary developments with that of a very wide range of non-monetary economic variables, they handle monetary policy in a robust way to possible and overcome the effects of financial innovation and development on the demand of money.

2.1. Monetary Policy and Financing Choice

Financial innovation and development also affects monetary policy in terms of financing choices. It is viewed that it may have important consequences for the mechanism of the monetary transmission (Robert, 2011). For example, the economy of the euro area has always been known for lending by banks, in contrast with other economies as that of the United States, where the security

markets always play a very big role in channeling savings for investments (Philip, 1999). The recent past saw more finance being raised in form of securities issuance the are of the euro. This made the corporate bond market to grow substantially, which then presented corporations with viable choices in terms of as to where they should obtain their funding. While the slow down in economic activity may have had a very negative influence on the development of the euro area, all corporate bond issuance grew at a relatively robust pace (Franklin, 1994). An explanation to this development was due to the role played by the e-finance in securities markets. For example, on the retail side, the online trading has at a very tremendous pace taken over very large market shares (Lamia, 2000) .

On average, according to a recent survey, more than a quarter of all brokerage services are done online in the euro area while in the USA, it is about 50%. The figure is even higher in some of the emerging countries (Krugman, 2009). Therefore the rapid acceptance of the e-finance as a form of financial development and innovation in securities markets truly reflects the technology-driven nature of the markets (Michael, 2009). This also shoes the ease with which consumers can easily switch between brokers. E-broking in all retail markets has greatly reduced costs of transaction. This therefore has been able to encourage many more small investors to directly invest into the markets (Ben, 2008). For example, in the euro era, the great development of the private bond shows that there has been an upward increase in the options that are available to borrowers. Also, the changes that are being experienced in the financial structure towards securitisation are also highly likely to increase wealth effects of monetary policy. This is because non-financial corporations and house holds will most probably hold a very large share of their wealth in form of financial market instruments, for instance, corporate bonds or equity.

It is also wise to note that an increase in new forms of finance or brand new products that leads to disintermediation has an important impact on the methods and ways monetary policy affects the cost of financing (Murali, 2008). A perfect example is where securitization constantly affects the way in which monetary policy influences the lending behavior of banks and therefore it is deemed that it can reduce the bank lending role in the monetary transmission mechanism (Daniel, 2009). It may also lead to a more broad market-based finance and since markets sometimes may react at a very tremendous speed to the changes in the monetary policy than banks do, it is seen that the efficiency of monetary policy can be strengthened. This therefore means that financial development and innovation is not necessarily a loss on the side of monetary policy but it affects the transmission mechanism of monetary policy (Henry, 1992).

3. CONCLUSION

In conclusion, it can be noted that financial development and innovation helps to raise the system of finance, which thus facilitates the monetary policy operation, however, it complicates to a greater extent the inalienable environment in which the monetary policy operates. As has been seen above, it is very critical to note that the impacts of financial development are more negative than positive, and hence for sustainability, countries do not need a lot of sophistication in financial development. Therefore as has been discussed, to deal with this level of complexity, financial institutions such as central banks have to respond by efficiently monitoring the financial landscape. This has to be done by closely following and monitoring the developments and predicting the consequences of financial innovation that may even appear very marginal.

BIBLIOGRAPHY

- Bansal (2000) Derivatives & Financial Innovations. McGraw-Hill
- Batra S. (2005) Financial Services: New Innovations. Deep & Deep Publication.
- Ben S. & David B. (2008). The Financial Crisis Blame Game - Business Week.
- Daniel F. (2009) Open Innovation in the Financial Services.
- Dimitris C. (2008) Introduction to Derivatives Financial Instruments. McGraw-Hill.
- Henry C. (1992) Financial Innovation. Routledge
- John F. (2009) Financial Engineering: A complete guide to Financial Innovation. PHI.
- Joseph F. (2001) Financial Bank Financial Management. Prentice Hall.
- Economics Debates to Financial Innovation, Franklin A. (1994) Financial Innovation and Risk Sharing. MIT Press.
- Franklin A. (2010) Financing the Future: Market-Based Innovations for Growth. Wharton School Publishing.
- Karl (2011) Financial Globalization: Growth, Integration, Innovation and Crisis. Macmillan
- Krugman, P. (2009). The Return of Depression Economics and the Crisis of 2008. Norton Company Limited

- Lamia O. (2000) *Financial Innovation in the Banking Industry*. Routledge
- Michael S. (2009) *Secret Liens and the Financial Crisis of 2008*. American Bankruptcy Law Journal.
- Murali D. (2010) *Islamic Financial Innovations*. The Hindu.
- Philip M. (1999) *Financial Innovation*. Wiley
- Philip M. (1999) *Financial Innovation (Wiley Financial Engineering)*. Wiley.
- Radha (2001) *Financial Market Innovations- Emerging Trends*. ICAFI.
- Richard B. (2007) *A Demon of Our Own Design: Markets, Hedge Funds, and the Perils of Financial Innovation*. Wiley.
- Healy, Paul M. & Palepu, Krishna G (2003) *The Fall of Enron: Journal of Economics Perspectives*, Volume 17, Number 2. p.13.
- Gelinas, N. (2009). *After the Fall: Saving Capitalism from Wall Street and Washington*. New York: Encounter. p. 250.
- Richard B (2007) *Perfect Storm for the American Consumer*. Morgan Stanley Global Economic Forum, November 12, 2007.
- Road to Ruin: Mortgage Fraud Scandal Brewing May 13, 2009 by American News Project hosted by The Real News.
- William N. (2005) *The Financial Innovations that Created Modern Capital Markets*. Oxford University Press.
- Tyler Cowen (Published: January 13, 2008). "So We Thought. But Then Again.. - New York Times". <http://www.nytimes.com/2008/01/13/business/13view.html>, [Accessed 01/12/2011]
- Labaton, Stephen (2008-10-03). "Agency's '04 Rule Let Banks Pile Up New Debt, and Risk". [The New York Times](http://www.nytimes.com/2008/10/03/business/03sec.html). <http://www.nytimes.com/2008/10/03/business/03sec.html>, [Accessed 01/12/2011].
- Robert E. (2011) *In Defense of Much, But Not All, Financial Innovation*. [/www.economist.com/debate/debates/overview/166](http://www.economist.com/debate/debates/overview/166), [Accessed 01/12/2011].
- US House of Representatives Committee on Government Oversight and Reform (22 October 2008). "Committee Holds Hearing on the Credit Rating Agencies and the Financial Crisis". <http://oversight.house.gov/story.asp?ID=2250>, [Accessed 01/12/2011].