BASEL II AND SUBPRIME CRISIS: THE BALKANIZATION OF REGULATIONS

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Abstract

The Basel framework is blamed for exacerbating the sub-prime crisis and suggestions range from revising Basel II to the establishment of Bretton Woods II. BIS responded the blames by accusing the "Balkanization of the regulations" and started revising Basel II. The aim of the paper is to investigate the source of fragmentation in Basel II implementations. To this end, the paper investigates the decisions of the EU members and Turkey in the implementation of Basel II Standardized Approach for credit risk that are left to national discretion. The findings of the paper suggest that "Balkanization" in the EU and in Turkey is the outcome of discretions left to national jurisdiction by the BCBS of BIS. The fragmentations in the implementations of the EU members are apt to create regulatory arbitrage. Turkey's assigning 0% risk weight i.e. to government borrowing in local currency; despite the fact that heavy government bond leverage was the main reason behind the 2001 crises, depicts the weaknesses of Basel II in protecting countries from possible crisis. The paper suggest that the BRSAs should be the responsible authority to take precautions against the idiosyncratic characteristics of the country, the banks, and the long-debated drawbacks of Basel II, while the Central Banks should be responsible from the macro prudential regulation and supervision.

Keywords: Government Policy and Regulation; Banks; Financial Risk and Risk Management

JEL codes: G18; G21; G32

1. Introduction

The Capital Requirement Directives (CRD) 2006/48/EC and 2006/49/EC, which runs parallel to the Basel II framework, regulates the application of Basel II in EU. Revised Basel accord went into effect on January 1, 2007 in Europe and is still to be fully implemented in the U.S by 2010. The sub-prime crisis coincided with the start of the implementations of Basel II in

G-10 and the framework which was designed to prevent the crises is now blamed for exacerbating the global financial crisis.

Eichengreen (2009), Atkinson (2008), Persaud (2008), Danielsson, (2008) accuse Basel II for introducing pro-cyclicality both with the external and internal ratings, for aggravating the fire sales with VaR models and for running short of estimating the extreme cases with the internal models. Eichengreen (2009), Wyplosz (2007), Pattanaik (2009) blame Basel framework for giving birth to the practice of shifting the risky assets from on to off-balance sheets, giving rise to conduits and structured investment vehicles (SIVs) and creating the shadow banking systems where the impact on capital requirements is to a great extent lower or nil.

Atkinson (2008) holds Basel responsible for its insensitivity for portfolio diversification and for encouraging regulatory arbitrage from high to low risk weight categories and creating high leverage and heavy concentration of exposures in certain asset classes like residential mortgages and structured products. Atkinson (2008) also argues that the economization of capital particularly by the large banks left the financial system with far too little risk capital to absorb the losses that corrections in the housing market generated. Goodhart (2008) finds Basel II as the culprit of the crisis for not properly envisaging liquidity risk and for not containing systemic risk. Danielsson, (2008) blames the models for not working during the crises due to the endogenous nature of risk.¹

Eichengreen (2009), Brunnermeier, (2008) point out at external rating agencies that rated subprime-mortgage-backed securities using very short time series which lacked any downswings. Brunnermeier, (2008) attributes this rating fallacy to rating agencies that collect the highest fees for structured products up front and who worked closely with the banks in determining the "tranching attachment points" of the tranches of structured products.

Atkinson (2008) holds Basel framework accountable for providing "a government stamp of approval [that] can substitute for management judgment" and asserts that the second pillar of Basel II that give great discretion and authority to supervisory authorities did not practically work effectively. Eichengreen (2009) affirms that the market discipline pillar of Basel II proved out to

¹Actually almost all the drawbacks of the Basel II framework, that are now being corrected, in terms of concentration, stress testing, liquidity risk management, rating agencies, VaR models and others have already been put forward during the consultation phase back in early 2000s.

be naïve as only increased transparency in the absence of capacity to process did not prevent the global crisis.

To prevent the reoccurrence of crises, suggestions range from technical revisions to dampen the pro-cyclicality of Basel II to the establishment of Bretton Woods. Pattanaik (2009) predicts that in the absence of market-correction,...."one could expect an increasing role for macro-prudential regulation, stress-testing of low-probability but high-impact scenarios, and much greater emphasis on transparency and information disclosure for all non-regulated entities—if not pressure to regulate all of them." Goodhart (2008b) refers to the Paulson Report which introduced 'twin peaks' approach of dividing the supervisory function into micro-prudential and macro-prudential role, the latter focusing on systemic issues and suggests that Central Banks (CBs) should handle the macro-prudential issues.

In response to the global crisis, the BCBS of BIS issued Revisions to the Basel II market risk framework On the other hand, as Bieri (2009) claims "Policy makers, however, are far from putting the blame for current regulatory failures on Basel II, but rather point to the 'Balkanisation of regulation'. It is thus the institutional fragmentation across market segments and the fragmentation across national jurisdictions within a globalized financial system that regulators and supervisors identify as the main culprit for the current crisis." Knight (2008), the former BIS General Manager, underlines that cross-border and cross-sectoral cooperation in regulation and supervision and consistency between the banking sector and other financial sectors should be established.

Knight (2009), to illustrate how "balkanized" the financial regulation is, underlines that in EU there are 27 supervising agency for each member and in US four federal agencies and 50 state agencies that are responsible from bank regulation and supervision and this created international regulatory arbitrage as some supervisory agencies in some countries permitted a lower capital cushion than some other supervisors in some other jurisdictions.

Basel framework encompasses 61 areas that are left to the national jurisdictions.² This paper investigates the Balkanization of regulations within EU and Turkey for a limited number of

² The areas that are left to national discretion fall in the scope of: Own Funds, Scope of Application, Counterparty Risk in Derivatives and Other Exposures, Standardized Approach, Credit risk mitigation; Internal ratings based approach, Qualifying Holdings outside the Financial Sector, Securitization, Transitional Provisions, Operational risk and Trading Book.

areas under the Standardized Approach (SA) of credit risk. The aim of the paper is to find out the role of the Basel framework in the fragmentation of regulations across jurisdictions. The rest of the paper is organized as follows: Section 2 discusses the Balkanization of regulations in the EU. Section 3 discusses the decisions of BRSA of Turkey for the same specific areas of SA to credit risk that are left to national discretion in the implementation of Basel II. Section 4 concludes.

2. The Balkanization within the EU in the implementation of Basel II

In terms of areas left to national discretion, a very limited number of articles related to Standardized Approach of credit risk are analyzed here.

Table 1 The Decisions of Supervisory Authorities in the EU for the S.A. of credit risk

Ref	Denomination	Description	Application
Art. 80 Annex VI, Part 1	Risk-weighing exposures to credit institutions	Member States may choose between two alternative methods for risk-weighing exposures to credit institutions: (a) on the basis of the risk-weight of the corresponding central government and (b) on the basis of the credit assessment of the institution itself.	LU, LV, EE, PT, HU, IT) No(method b): (UK, NL, BE, EL, LT, SI, CY, MT, BG, LI,
Anny VI	Recognition of a third country's treatment of central government and central bank exposures	arrangements at least equivalent to those in the	Yes: (DE, UK, ES, BE, NL, AT, FI, LU, LV, EE, EL, CY, MT, PT, HU, BG, IT, CZ, RO, IE, SK) No: (FR, SI, PL) Not applicable: (LT, DK)
Annex VI	Treatment of exposures to public sector entities guaranteed by central governments	The Competent Authorities may, in exceptional cases, treat exposures to PSEs as exposures to the central government in whose jurisdiction they are established where, in their opinion, there is no difference in the risk between such exposures because of the existence of an appropriate guarantee from the central government.	Yes: (DE, UK, FR, ES, AT, BE, LU, LV, SI, FI, CY, MT, PT, HU, NO, LI, IT, CZ, SK) No: (EE, BG, IC, SE, DK, RO, PL) Applicable with 20% risk weight: (EL, IE)
	exposures to EU institutions in their national	denominated and funded in the national currency a risk weight that is one category less favorable than the preferential risk weight applicable on exposures	AT, FI, EL, LU, EE, CY, HU, BG, IT,CZ, RO, SK) No: (BE, LV, SI, MT, PT, IE,

Sources: Austrian Financial Market Authority, BRSA, 2008

Risk-weighing exposures to credit institutions: Some of the developed EU members with high external ratings have chosen the alternative of implementing risk weights to credit institutions on the basis of the risk-weight of the corresponding central government for credit risk.(Option 2) These countries like France, Finland, Luxemburg, Norway, Italy, Portugal and Sweden create international regulatory arbitrage in favor of the banks in their countries that would have a lower rating than their government. This choice will ease the lives of the weak banks in these countries but will not prevent them from crisis. Furthermore, this option also incorporates a risk weight of 50% on claims from non-rated banks and 20% on short term claims from non-rated banks as depicted in table 3. Hence, these EU members may even endanger the stability of their markets in the case of overuse of this short term option encompassed in option 2, for example to Emerging Markets ³

Table 2 Claims on Banks under Standardized Approach

Options	AAA to AA-	A + to AA	BBB+toBBB-	BB+to B-	Below B-	Non-rated
Treasury/C. Bank	0%	20%	50%	100%	150%	100%
Option 1	20%	50%	100%	100%	150%	100%
Option 2	20%	50%	50%	100%	150%	50%
Option 2 (short t.)	20%	20%	20%	50%	150%	20%

Source: BRSA, 2005

Recognition of a third country's treatment of central government and central bank exposures: The majority of the EU recognizes a third country's treatment of central government and central bank exposures of 0% risk weight, whereas France, Slovenia, Poland, Lithuania and Denmark do not. This difference in implementation creates regulatory arbitrage possibilities in favor of the banks that belong to the majority of EU members as they would not be obliged to increase their capital when buying i.e. the Eurobonds from the Emerging Markets that apply 0% risk weight to their central government and central bank exposures. This may even create instability in the financial markets of the affirmatively replying countries if overused.

Treatment of exposures to public sector entities guaranteed by central governments: Estonia, Bulgaria, Denmark, Romania and Poland do not treat the exposures of public sector entities (PSEs) guaranteed by central governments as exposures to the central government,

³The declining lending to emerging markets after Basel II is reported by the World Bank and foreign banks seemingly will continue to prefer lending short term to developing countries. This surely will add fragility to the Turkish Banking System (TBS).

whereas Greece and Ireland apply 20% risk weight. Germany, U.K. France, Estonia, Austria, Belgium, Luxemburg, Latvia, Slovenia, Finland, Cyprus, Malta, Portugal and Hungary treat the exposures of PSEs guaranteed by central governments as exposures to the central government. These different implementations also create regulatory arbitrage in favor of the banks which use 0% risk weight to PSEs particularly for the developing countries in EU.

Treatment of short term exposures to EU institutions in their national currency: Belgium, Latvia, Slovenia, Malta, Portugal, Ireland, Poland, Lithuania and Denmark do not apply to the short term interbank exposures to EU institutions in their national currency a one category less favorable risk weight than the preferential treatment to central governments. This difference in implementation is also apt to create regulatory arbitrage as banks in Germany, UK, France, Spain, the Netherlands, Austria, Finland, Greece, Luxemburg, Estonia, Cyprus, Hungary, Bulgaria, Italy, Czech Republic, Romania and Slovakia can apply 20% risk weight to short term lending.

The delegation of increased power to supervisory authorities under pillar II is also fitting for implementation differences between member states. For the efficiency of the second pillar of Basel II on bank supervision Barth, Caprio and Levine (2008) claim that the comparison of their survey on bank regulations in 142 countries with their two earlier surveys show that Basel II strengthened capital regulations and supervisory agencies but these reforms do not warrant an improvement in bank stability and efficiency. ⁴

In the EU, some regulatory and supervisory fragmentations now serve as examples of good governance. The "twin peaks" approach of Paulson Report both for micro and macro prudential regulation is adopted by the Netherlands and to a certain extent Australia. (Goodhart, 2008) Denmark, the Netherlands and Spain have required separate capitalization for subsidiary SIVs and conduits before the eruption of the crisis. Swedish authorities have, to a certain degree, conducted policies of leaning against the wind by combining macro prudential regulation with micro. Spain has implemented a system of countercyclical provisioning. Argentina had set capital requirements as a function of interest rates, which also served as countercyclical provisioning.

⁴According to Zingales (2008) "It is a mistake to think that the significant power attributed by these new mechanisms to these institutions would have not affected the independence of their judgment. As written by Montesquieu, power corrupts, absolute power corrupts absolutely. The rating agencies are no exception to this rule [...]".Cannata and Quagliariello (2009)

Estonia and Ireland tightened, though at a modest level, regulation for mortgages.⁵ On the other hand, under the Banking Act 2009, the Bank of England is given a legal objective "to contribute to protecting and enhancing the stability of the financial system of the U.K."Also, the Bank of England will be responsible from the supervision of payments system. Hence macro prudential regulation will be under the responsibility of Bank of England working closely with FSA, whose main responsibility is micro prudential regulation, and also with HM Treasury. (OECD, 2009)

To sum up, it is true that there is Balkanization of regulations in the EU. However, these fragmentations are mainly due to the options provided under pillar I and the strengthening of the supervisory authorities' power under pillar II of Basel II. Some regulatory and supervisory fragmentations, on the other hand, now serve as examples of good governance. This, however, does not invalidate the fact that the Accord Implementation Group, the CEBS and the BRSAs in EU member states could have harmonized the decisions of the member states without creating a race to the bottom. The fragmentation in the implementation of Basel II, will pose even greater problems as many other countries are getting prepared to apply Basel II.

3. The Decisions of BRSA of Turkey in the areas left to National Jurisdiction

The practice of Basel I and the surveys for Basel II, as portrayed in table 3, show that around 100 more countries are getting prepared to apply Basel II. Most of these countries are developing countries and they will use the Standardized Approach for credit risk which encompasses serious deficiencies in itself and also in the areas of implementation it leaves to the national jurisdiction. Moreover, the environmental factors in these developing countries may not be very suitable for the strengthened roles of supervisory authorities under pillar II of Basel II. The decisions and dilemmas of Turkey represent those of 100 more developing countries that will apply Basel II. Here, the areas left to national discretion for Standardized Approach, which will

⁵ Estonia increased the risk weights of loans secured by mortgages of residential property and also put a limit to the interest rate deductibility of mortgage interest rate. Ireland raised the risk weighting on mortgages for owner occupiers. (OECD, 2009)

⁶Committee of European Banking Supervisors (CEBS), established in 2003, is responsible from the maintenance of convergence, coordination and cooperation between supervisory agencies and the harmonized implementation of the legislation regarding banking in EU. Furthermore, the Accord Implementation Group and the CEBS have the responsibility to supervise and evaluate the implementations of national jurisdictions in order to prevent competitive advantage. (BRSA, 2005)

be the choice for the developing world will be further discussed in the framework of the decisions of BRSA of Turkey.

Table 3 Number of Countries intending to adopt Basel II

Regions	Number of	Respondents intending to	Percent % in total
	Respondents	adopt Basel II	
Africa	17	12	71
Asia1	16	16	100
Caribbean	7	4	57
Latin America	14	12	86
Middle East	8	8	100
Non-BCBS EU	36	30	83
Total	98	82	84

Note 1: Excludes Japan as BCBS member-countries were not included in the survey.

Source: Gottschalk, R. and Griffith-Jones, R. (2006)

The inclusion of Basel-II provisions in the Acquis Communautaire has necessitated BRSA to implement Basel II. Currently, capital adequacy in the banking system is calculated on the basis of "Regulation on Measurement and Assessment of Capital Adequacy of Banks", published in the Official Gazette in 2006 and operational risk component is included in capital adequacy calculations as of June 2007. Basel II implementations was projected to start by January 2008 in Turkey, delayed to January 2009 and in June 2008, BRSA of Turkey postponed the implementation of capital requirements measurement based on credit risk ratings to a further date due to the global financial crisis. (BRSA, 2008b)

Table 4 illustrates that almost all the banks in Turkey will start Basel II implementations for Credit Risk with the Standardized Approach despite the serious shortcomings of the Standardized Approach.

Table 4 The Credit Risk Approach to be implemented in conjunction with Basel II (in %)

Simplified Standardized Approach	1.14
Standardized Approach	76.24
Foundation Internal Ratings Based Approach	-
Advanced Internal Ratings Based Approach	0.04
Combination of Simplified S.A and Standardized Approaches	10.27
Combination of S.A and FIRB Approaches	12.30
Combination of Foundation and Advanced IRB Approaches	-
No announced target	-

Source: BRSA, Progress Report (2009)

The decisions of BRSA of Turkey in the areas left to national jurisdiction are not as yet officially declared, but the assumptions BRSA put forward in Quantitative Impact Studies (QIS-TR1 and QIS TR2) already serve as good indications of the BRSA's possible choices.

Table 5 The Decisions of BRSA in Turkey for the areas left to BRSA for S.A. to credit risk

Ref	Denomination	Description	Application
Art. 80 Annex VI, Part 1	Kisk-weigning	Member States may choose between two alternative methods for risk-weighing exposures to credit institutions: (a) on the basis of the risk-weight of the corresponding central government and (b) on the basis of the credit assessment of the institution itself.	Vos
Annex VI, Part 1, p.5	government and	When a third country with supervisory/regulatory arrangements at least equivalent to those in the Community assigns for the exposures to its own central government and central bank denominated and funded in the domestic currency a lower risk weight than the one applicable in principle, a Member State may allow to risk weight such exposures in the same manner.	Yes:
Annex VI, Part 1	entities guaranteed	The Competent Authorities may, in exceptional cases, treat exposures to PSEs as exposures to the central government in whose jurisdiction they are established where, in their opinion, there is no difference in the risk between such exposures because of the existence of an appropriate guarantee from the central government	Yes
Annex VI, Part 1	their national	A Competent Authority may allow short term exposures to Member States' institutions denominated and funded in the national currency a risk weight that is one category less favorable than the preferential risk weight applicable on exposures to EU central governments.	Yes:

Sources: Austrian Financial Market Authority, BRSA, 2008

Risk-weighing exposures to credit institutions: BRSA decided to choose⁷ option b. This decision is understandable as Turkey has an unfavorable sovereign risk weight of 100% and there are banks having higher rating than the sovereign. However, BRSA's decision is also in favor of

⁷BRSA (2007) for the QIS-TR2 calculated that the Capital Adequacy Ratio of 19.31% of the banks joining the Impact Study has fallen to 13.68% with the application of CRD/Basel II. The need for capital with Basel II stems from the 100% risk weight applied to foreign currency denominated government bonds (Eurobonds) and and the inclusion of operational risk to capital adequacy requirements. For claims to Corporates, althougt risk weights according to ratings are applicable, 100% risk weight is implemented due to the scarce number of corporates with ratings. In addition, claims to banks due to risk weighting according to ratings have been another area which increased the need of capital in Turkish Banking Sector. (TBS)

the short-term option under the second option. (See table 2) The mismatch in the balance sheets of banks in Turkey is still a very big problem and this decision will not give any incentive to banks for lengthening the maturities. Furthermore option 2 gives the unrated banks the preferential treatment of 50% risk weight and for short-term claims of unrated banks 20% risk weight. In Turkey there are quite a number of unrated banks and this treatment will give disincentive to these banks to have external ratings. As suggested also by BRSA (2005), preferential treatment to short term bank claims also raises the question of risk weight to be applied to the practice of roll-over loans of 3 months in Turkey, for which only the rate of credit is subject to change in conjunction with the market conditions.

Recognition of a third country's treatment of central government and central bank exposures: Annex VI part 1, paragraph 4 states that exposures to Member States' central governments and central banks denominated and funded in the domestic currency shall be assigned a risk weight of 0 %. Paragraph 5 leaves recognition of a third country's treatment of central government and central bank exposures to national discretion. BRSA also adopted 0% risk weight to local currency denominated and funded risks including foreign currency indexed claims to Treasury and Central Bank. In the TBS balance sheet, however, the weight of government debt instruments (securities) is 28.9% and credits is 47.9% as of June 2009. The high leverage in treasury bills and government bonds with maturity mismatches funded by open foreign exchange exposures was one of the major causes of the 2001 crisis. Under these circumstances, a 0% risk weight to the exposures of central governments denominated and funded in local currency may again cause crowding out and induce high leverages in government debt instruments in Turkey. Also, as emphasized by BRSA (2005) foreign currency indexed securities have a considerable share in the securities portfolios of banks and they encompass foreign exchange risk. However, the public sector borrowing requirement (PSBR) level of Turkey necessitates the continuation of 0% risk weight of Basel I that was again a preferential treatment due to OECD membership of Turkey.

Treatment of exposures to public sector entities (PSEs) guaranteed by central governments: BRSA (2007) decided that the claims to PSEs, under the condition that they fulfill certain requirements will be evaluated as claims to Treasury and Central Bank and will have a 0% risk weight. In this framework, the PSE that have a lower credit rating than the Treasury or that is unrated will have a cost advantage in their borrowings. BRSA, (2005) In addition, there is as no

list of PSEs that can be treated as the Treasury of a country. ⁸ (BRSA, 2005) Furthermore, in Turkey some of the PSEs had the habit of not paying the interest of their borrowings during 1990s. Moreover, an advantageous risk weight to PSEs may also induce crowding-out.

Treatment of short term exposures to EU institutions in their national currency: BRSA (2007) decided to apply the preferential treatment for claims to banks 20% risk weight. This preferential treatment has the potential to create problems in the over-the- counter (OTC) interbank money market transactions. On the other hand, in the developing countries, three months represent the maximum maturity for interbank transactions; hence the application of the concerned treatment does not provide any incentives for lengthening the maturity of interbank money market transactions. Conversely, it creates disincentives for long term transactions.

4. Conclusions

Balkanization in Regulations in Basel II is mainly created by BCBS of BIS with the 61 areas left to national jurisdiction. The Balkanization in Basel II implementations in the EU creates incentives for regulatory arbitrage and increases banking fragilities. The Accord Implementation Group and the CEBS who have the responsibility to maintain convergence, coordination, cooperation between supervisory agencies and to harmonize implementation of the legislation and to prevent competitive advantage between countries was not powerful enough in EU.

100 more developing countries like Turkey will use the Standardized Approach for claims from banks which does not prevent banking systems from banking fragilities. The national discretions left to national jurisdictions has the potential to create extra fragilities as the majority of developing countries- both in and out of EU- applying 0% risk weight to government debt. It also has the potential to create incentives for crowding out, incentives for short term transactions and disincentives for banks to have external ratings from ECAs.

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⁸ Basel II categorizes the PSEs that do not belong to central government into three classes. First group is composed of regional governments and local authorities that have authority to collect and spend for the state and that are subject to regulations preventing them from possibility of default. The second group encompasses the administrative bodies that are responsible vis- a- vis the general government, regional and local governments and the non-commercial corporations belonging to the central or local governments. The institutions in this second category under the condition that they are subject to strict procedures for borrowing and to regulations preventing them from possibility of default will be considered as national PSEs that do not belong to central government and the claims from such institutions will be evaluated as claims from banks. The last group consists of commercial entities belonging to the central government, regional governments or local governments.(BRSA, 2005)

The cases of good governance and the global financial crisis, on the other hand, make it clear that and the CBs should play a more active role in the prudential regulation and supervision of the banks and /or financial markets. Banking Regulatory and Supervisory Agencies should be the responsible authority to take precautions against the idiosyncratic characteristics of the country, the banks, and the long-debated drawbacks of Basel II, while the Central Banks should be responsible from the macro prudential regulation and supervision.

The merits of Basel II are also debatable if, with the areas left to national discretion under the Standardized Approach to credit risk, the banks in countries like Turkey that has to apply 100% risk weight to its government debt portfolios end up applying 0%. The next step to this discussion should probably be the abolishment of (simplified) Standardized Approach for credit (and also the ineffective market risk) by strengthening the drawbacks of OECD country preferential treatment with a new benchmark. Such a move has also the potential to solve the problems encountered with the rating agencies and gives incentives to developing country banks to continue with Basel I.

References

- [1] ACKERMANN, J. The subprime crisis and its consequences. *Journal of Financial Stability*. 2008,vol:4, pp. 329–337, Elsevier
- [2] ATKINSON, P. The Basel Capital Adequacy Framework Should Be Reconsidered. Sciences Po. *Group d'Economie Mondiale, Policy Brief* October 2008
- [3] Austrian Financial Market Authority, Available at: http://www.fma.gv.at/cms/op/EN/einzel.html?channel=CH0462>
- [4] BARTH, J.R, CAPRIO, G., LEVINE, R. Bank Regulations Are Changing: For Better or Worse? *The World Bank Policy Research Working Paper* 2008 no. 4646
- [5] BIERI, D. Financial stability, the Basel Process and the new geography of Regulation. *Cambridge Journal of Regions, Economy and Society* 2009, vol.2, pp. 303–331
- [6] BRSA, Turkey, Basel-II İkinci Sayısal Etki Çalışması Değerlendirme Raporu [Basel II, Quantitative Impact Study-TR2], 2007

- [7] BRSA Turkey, Basel-II Ulusal İnisiyatif Alanlarının Anlaşılmasına Yönelik Açıklayıcı Rehber [Information regarding the implementation in Basel II in areas left to national discretion], 2005
- [8] BRSA Turkey, CRD/Basel 2 Ülke Uygulamaları [CRD/ Basel II Country Applications], 2008
- [9] BRSA Turkey. Basın Duyurusu [Public Announcement] 2008b
- [10] BRUNNERMEIER Deciphering the 2007-08 Liquidity and Credit Crunch. *Journal of Economic Perspectives* 2008 (forthcoming),
- [11] CANNATA, F., QUAGLIARIELLO, M. The role of Basel II in the subprime financial crisis: guilty or not guilty? *CAREFIN Working Paper* 2009, no: 3/09
- [12] DANIELSSON, J. Blame the models. In FELTON, A., REINHART, C. (eds) *The First Global Financial Crisis of the 21st Century*, 2008, A VoxEU.org Publication, CEPR
- [13] EICHENGREN, B. From the Asian crisis to the global credit crisis: Reforming the international financial architecture redux. Published online: 7 March 2009, Financial Markets Group, London School of Economics
- [14] GOODHART, C.A.E. The regulatory response to the financial crisis, *Journal of Financial Stability*, 2008 vol. 4, pp. 351–358
- [15] GOODHART, C.A.E Central Banks' Function to Maintain Financial Stability: An Uncompleted Task, Financial Markets Group, London School of Economics, 2008b.
- [16] GOTTSCHALK, R. and GRIFFITH-JONES, R. Review of Basel II Implementation in Low-Income Countries. Institute of Development Studies, University of Sussex, 2006
- [17] KNIGHT, M. Can We Establish General Principles to Guide Reform of the Global Architecture of Financial Regulation? Lecture Series Financial Crises: In a Free Market Economy, how much Regulation is too much?, LSE, March 11, 2009
- [18]KNIGHT, M.D. Weaknesses revealed by the market turmoil: where do we go from here? Speech at the Chatham House event: "The New Financial Frontiers", London, 29 April 2008.
- [19] OECD Economic Surveys: *United Kingdom. Financial stability*: Banking on prudence Chapter 4, OECD 2009, ISBN 978-92-64-05437-0
- [20] PATTANAIK, S. The Global Financial Stability Architecture Fails Again: sub- prime crisis lessons for policymakers Asian-Pacific Economic Literature 2009, vol. 23, no.1, pp 21 47

- [21] PERSAUD, A. Why bank risk models failed. In FELTON, A., REINHART, C. (eds) *The First Global Financial Crisis of the 21st Century*, 2008, A VoxEU.org Publication, CEPR
- [22] PICCIOTTO, S. Disembedding and Regulation: The Paradox of International Finance.
 Lancaster University Law School. Joint Conference of the Collaborative Research Centre
 597 and RECON February 5-7, 2008
- [23] WYPLOSZ, C. The subprime crisis: observations on the emerging debate. In FELTON, A., REINHART, C. (eds) *The First Global Financial Crisis of the 21st Century*, 2008, A VoxEU.org Publication, CEPR