

BASEL II: An Example of “Smart” Regulation

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Abstract: In contrast to Basel I, Basel II features with three-pillar framework which has been acknowledged as superior both by academics and industry. Fundamentally, the three-pillar framework reflects a major shift from *simple risk measurement* under Basel I to *comprehensive risk management* under Basel II. However, this obvious aspect of superiority is not a sufficient explanation for the likely success of Basel II as a regulatory system designed for maintaining financial stability. Basel II embraces certain features of “third-way” regulatory strategies which are positioned mid-way between direct government command and self-regulation. This paper will draw on two of those “middle-path” concepts to evaluate Basel II; one of these is “reflexivity” as explicated by Aalders and Wilthagen (1997), another is “responsive regulation” as developed by John Braithwaite and his co-researchers (Ayres & Braithwaite, 1992). This paper will examine the congruence between Basel II and these two concepts of “third-way” regulation to evaluate the likely effectiveness of prudential controls under Basel II.

1. Introduction

The new Basel Accord (Basel II) was released in 2006 for implementation in 2008. This new accord was designed to respond to recognized deficiencies in previous Basel Accord (Basel I). Basel II represents a more advanced approach which encompasses a greater variety of risk measures and requires more comprehensive management practices. As the Basel Committee (McCreevy, 2005: 3) states:

Basel II makes the moves from static; one size fits all capital rules for banks to more risk-based capital regulation, financial institution’s capital requirements could be much more related to their risk profile.

Under Basel II, an additional risk category—that of “operational risk”—has been introduced, and it is anticipated that “gaming and manipulation” practices on the part of banks will be curtailed through “extended” and “active” supervision and the increased involvement of market participants. Banks are obliged to implement an “optimal” risk

management system under the new accord. However, the obvious shift from risk measurement under the old “one pillar” Accord to risk management under the “three pillars” Basel II Accord is insufficient to explain why Basel II has been described as a “milestone” in banking regulation (Udeshi, 200. p.2). To explore how effective the Basel II Accord is likely to be, this paper introduces the notion of “third-way” regulatory strategies, which it is argued, represent a “middle-path” between direct government intervention and self-regulation. The congruence between Basel II and these “middle-path” strategies will be explored and employed as the basis to evaluate how effective the new Accord is likely to be.

This paper will first review some theories of financial crisis focusing on the dimensions of financial stability, instability and fragility. Based on theoretical differences, different root causes are associated with financial instability and contagion. Accordingly, the second section of paper will briefly review the history and design of regulatory strategy, tracing moves away from direct and stringent forms of government intervention. However, rather than highlighting moves towards self-regulation, it will focus on “third way” regulatory strategies. The third section, of the paper will draw on a series of attributes associated with two widely discussed “middle path” regulatory concepts—those of “reflexivity” and “responsiveness”—to assess the congruence between Basel II and those attributes.

2. Theories of Financial Crisis

Banking regulation is designed to ameliorate financial crises. In the historical past and more recently, major financial crises have resulted in significant economic dislocation flowing from the financial sector to other productive sectors within affected economies. For Davis (1999: 2) “financial crisis is seen [...] as a major and contagious collapse of the financial system, entailing inability to provide payment services or to allocate funds for investment; realization of systematic risk”.

The economic literature distinguishes between financial stability, instability and fragility. However, there are no universally accepted definitions of these terms. According to

Andrew Crockett (1997), financial stability generally refers to the “normal” functioning of the key institutions and markets in a financial system. In other words, this stability first requires that key industries within the financial system are stable, which means they can continue to meet their obligations with high degree of confidence. Second, key markets are required to be stable without any change in fundamentals. Crockett suggests that instability in the financial system occurs due to the absence of stability in these key industries or markets within the financial system. However, in economic literature, there are competing theoretical explanations for financial instability. Each theoretical approach identifies a different root cause of financial instability.

The New Keynesian, Asymmetric Information Approach as developed by Mishkin (1991, 1997) has its foundation in information economics and agency cost theory. Mishkin believes information asymmetry has the power to hinder the efficient functioning of financial systems in relation to their capacity to channel funds to those individuals or firms with productive investment opportunities. To be successful, participants in financial markets must be able to make accurate judgments about which investment opportunities are more or less creditworthy. Thus, a financial system must confront problems of asymmetric information, in which one party (normally the lenders) to a financial contract has much less accurate information than the other party (the borrowers).

Asymmetric information leads to two basic problems in the financial system: adverse selection and moral hazard. Adverse selection occurs before the financial transaction takes place, when agents who are potentially bad credit risks are the ones who are most actively seeking loans. i.e., the risk lovers are likely to be the most eager to take out a loan, even at a high rate of interest, because they are less concerned with paying the loan back. Thus, the lender must be concerned that the parties most likely to produce an undesirable or adverse outcome are also most likely to be selected as borrowers. Lenders will try to tackle the problem posed by asymmetric information by screening out bad from good credit risks, but this process is inevitably imperfect. Moral hazard occurs after the transaction takes place, when a borrower has incentives to engage in risky activities that are undesirable from the lender's point of view because they decrease the likelihood

that the loan will be paid back. Higher risk activities, if they pay off, produce high returns for the borrower, but if they fail, the lender bears most of the loss. The asymmetric information problems described above provide a definition of what financial instability is by Mishkin (Mishkin & Herbertsson, 2006: 31):

Financial instability occurs when there is a disruption to financial markets in which asymmetric information and hence adverse selection and moral hazard problems become much worse, so that financial markets are unable to channel funds efficiently to those with the most productive investment opportunities.

Financial instability thus results in the inability of financial markets to function efficiently.

Another approach to the analysis of financial instability employs Frank Knight's (1921) definition of uncertainty as its core. Due to the inter-temporal nature of economic and financial decisions and the coming into being of an unknown future, uncertainty threatens financial stability. This is most apparent when a shock exposes the fact that a "certain level of uncertainty" incorporated as a compensatory premium into pre-shock inter-temporal decisions has been insufficient.

From a Post-Keynesian's perspective, the development of financial fragility under conditions of fundamental uncertainty is the root cause of financial instability. Following Keynes, Minsky (1982, 1986) proposed his Financial Fragility Hypothesis (FFH) to illustrate how financial crisis can occur as an endogenous outcome of decision-making within financial units. He focuses on the relationship between the banking system and investors, highlighting the possibility of financial fragility developing during upturns in the business cycle (also see Kindeberger, 1978). This approach postulates a cyclical process, relating continuing economic expansion to declines in uncertainty and an increasing preference for externally financed investment expenditure. A pyramid of liquidity is constructed through growing inter-connections between the financial and productive sectors, which can be enhanced by financial innovations. Over time, both the increasing reliance on external finance, and the increasing deferment of 'break-even'

times, change a “sound” financial structure into a “fragile” one. To clarify this process Minsky distinguished between three financial postures: hedge, speculative and Ponzi finance.

Hedge positions are the most financially prudent positions, because they are able to clear outstanding debt, in full, out of the current receipts. Agents who adopt speculative positions, experience occasional cash shortfalls in the short run, but in the long run they are able to generate cash flows that more than cover their cash commitments. Ponzi positions are the most fragile in the system. Ponzi agents always increase their outstanding debt in order to meet their financial commitments, cover their existing debt and generate profit (Darity, 1992, p. 75). During an economic boom, expectations about the expected future returns become increasingly optimistic. Firms undertake riskier investment projects and therefore increase their debts. Banks also participate in this expectation by supplying the loans required to undertake such investments. In fact, banks are profit-seeking institutions, are thus willing to provide loans to more risky customers at a higher price. At this point, most of the firms, as well as banks, move from the hedge financial positions to more speculative and Ponzi ones, as they overestimate their expected returns. The debt-equity ratio starts to increase at an increasing rate and the economy slowly become unstable. The system is inherently unstable because of the overoptimistic behavior of financial units.

Without mitigation through policy intervention, the “fragile” financial system is increasingly vulnerable to negative shocks. To maintain the financial, and thus, general economic stability, an “optimal” regulatory strategy is required. However, designing an effective and efficient regulatory strategy is very challenging, especially when industries are experiencing a dramatic updating of organizational technologies (both within and outside the financial system). Therefore, theoretical analysis must become more sophisticated, as reflected in policies that move away from an oscillation between direct government intervention and self-regulation, towards ‘third-way’ approaches to the “regulation of self-regulation” or the “conduct of conduct”. The next section of the paper addresses this aspect of regulation.

3. Theories on regulating financial system

For the long period, the design of regulatory strategies was dominated by, and would oscillate between two approaches. On one hand, direct and stringent forms of government intervention were advocated. It was common for Keynesian policy makers to embrace top-down forms of “command-and-control”, given their convictions that market failures associated with uncertainty and instability, were unavoidable, even for well-developed markets. Activist forms of stabilization policy to reduce the amplitude of business cycle, were complemented by extensive interventions in the financial system.

On the conservative side of political economy, Authors such as Pigou (1936) and Von Hayek (1999) believed that governments and other monopolistic elements were the main sources of market “abnormality”. Accordingly, they argued that there was a need to restrain arbitrary action on the part of government. Similarly, Monetarist theorists such as Milton Friedman (1968, 1986), promoted the virtues of removing the ‘dead hand’ of government from the ‘invisible hand’ of the market. Friedman argued that market would adjust quickly to eliminate shortages and surpluses, so that business cycles themselves were efficient cleansing mechanisms. He pointed to the fact that direct government interventions could further destabilize the economy by hindering rational decision-making on the part of private agents.

In response to this negative assessment of intervention, neo-liberal processes of self-regulation have been advocated. From a historical perspective, what is often championed seen as a new “paradigm” of economic theory and policy-making (Einar & Amund, 2005) reflects a return to type (Hayek, 1979). As Munck (2005) observes, the prospect of a self-regulating market is a core assumption of classical liberalism, and an important presumption amongst neo-liberals as well, who promote various forms of deregulation, the increasing flexibility of markets, and forms of self-regulation.

In their search for a “third way”, many policy-makers and academics have argued that neither spontaneous forms of self-regulation nor a command-and-control approach are

satisfactory. For example, Mitchell Dean (1999) has proposed a mode of “governmentality” that is seen to characterize advanced liberal democracies. He has suggested that this new form of governing needs to be closely allied with the creation and growth of the modern bureaucracies. As a result of this search for a “third-way” approach to regulation, two notions have come to the fore. On one hand, the notion of “responsiveness” has been proposed by John Braithwaite (1992). On the other hand, Aalders and Withagen (1997) promote the notion of “reflexivity”. In the next section of the paper, each of these attributes of third-way” policy will be examined.

4. The Congruence between Basel II and the Attributes of “Reflexivity” & “Responsive Regulation”

The notion of regulatory responsiveness was first applied by Nonet and Selznick (1978) in the field of legal philosophy, who talked about the need for “responsive law” during regulatory transition periods. Their concept of “Responsive law” was characterized by certain elements, which were subsequently taken over by researchers investigating “responsive regulation”. These elements included flexibility, a purposive focus on competence, participatory citizenship, and negotiation. These same notions were advocated as guides to the design of regulatory strategies. Both “reflexivity” (Aalders & Wilthagen, 1997) and “responsive regulation” (Ayres & Braithwaite, 1992) fall into this category of regulatory research.

The basic idea in responsive regulation is that governments should be responsive to the conduct of those they seek to regulate, while decisions to escalate respond to assessments about the effectiveness of self-regulation. Where formalist approaches define problems and responses in advance, on the basis that agents are both rational and consistent, responsive regulation is not consistent but acts on basis that agents can generally be persuaded towards compliance. A distinction is drawn between virtuous, rational, and irrational actors, so that appropriate interventions can be applied ranging from persuasion, through deterrence, to ultimate incapacitation. For Aalders and Wilthagen, who work within a socio-cybernetic framework, reflexivity is characterized by systems monitoring, which compensates for limited inspectorate capacity through internal

monitoring; however, to be sustained this must be backed by legislative enforcement, public disclosure, and countervailing powers; the presence of intermediary structures, which could include trade unions, OH&S committees, and industry networks; corporate social responsibility to be achieved via the internalisation of external goals and values, but supported with co-regulation; and market-oriented regulatory tools backed by market transparency and full information.

These two notions of reflexivity and responsiveness can be woven together once it is recognized that a more foundational dichotomy can be established between mechanisms that *spread the burden of regulation* beyond the direct sphere of government (i.e. via systems monitoring and the use of tripartism and intermediary structures); and mechanisms that achieve *responsive enforcement* (i.e. by implementing a credible and invincible regulatory response initially induced through the enforced internalisation of external goals). Each of the aspects described by Aalders and Wilthagen will now be applied to an evaluation of the Basel II regulatory framework.

4.1. Spreading the Regulatory Burden

4.1.1. System monitoring

The first factor contributing to a spreading of the regulatory burden is system monitoring, which compensates for limited inspectorate capacity through promoting the internalization of goals and objectives. However, for success it should be backed by legislative enforcement, public disclosure, and countervailing power.

4.1.2. Intermediary Structures and Co-Regulation

The second factor relates to intermediary structures, which could include trade unions, industry networks and OH&S committee. While corporate social responsibility on the part of banks can be achieved through the internalization of external goals and values, under a “reflexive” approach, market-oriented regulatory tools should be adopted, and backed by market transparency and requirements for disclosure of full information. Similarly, “responsive Regulation” advocates a “tripartite” approach under which government, industry and public interest groups (PIGs) are conceived to act as three

“kickstands” in supporting a responsive agenda. The three-fold process of cooperation that ensues is deemed to make regulatory strategy more “stable”. Thus, under “responsive regulation”, industries are encouraged to consider not just private interest but also the public interest. PIGs thus become an acknowledged third player in the regulatory game, acting as “eyes” watching over the whole process from a distance. At the same time, market incentives—to be discussed below—are brought into the regulatory process within an environment of public disclosure to ensure a more sensitive and effective form of surveillance and control (Ayres & Braithwaite, 1992).

4.1.2. Market Discipline

As a new development within the Basel framework, market discipline is a “hot topic” in debates over the likely effectiveness of Basel II, with most of the discussion focusing on the need for market information on the degree of conformity with the requirements of capital adequacy set by banking supervisors. In the past, direct regulatory supervision alone was deemed to be an effective instrument for inducing banks to hold sufficient capital, but Basel II confirmed the role of market discipline as a necessary supplement for ensuring adequate provision of capital. With a series of evolutionary developments in financial markets, banks have acquired more sophisticated tools for managing and transferring risk, including through securitization and the use of credit derivatives (Kwan, 2004). However, it was increasingly recognized that in achieving effective regulation of risk, there was a need for disciplinary mechanisms that were based more on market signals and surveillance by market participants—shareholders and debt holders. In particular, it was argued that levels of subordinated debt would act both as a primary information signal under market discipline and as a technological mechanism affording greater flexibility in meeting capital adequacy requirements, even when a bank is “healthy” (Federal Reserve Board, Washington, 1999).

4.2. Responsive Enforcement

Under responsive regulation, there is no universal or unique solution for various problems and structures, and the appropriate regulatory strategy must vary in conformity with changes or differences in the situation of each industry. In this way, responsive

regulation and “reflexivity” represent a more flexible, effective and sensitive approach to that adopted by traditional forms of top-down regulation or self-regulation (Grabosky & Braithwaite, 1993).

Under both a “reflexivity” based and “responsive regulation” approach, forms of co-regulation are endorsed. Braithwaite defines responsive regulation as a strategic mode of intervention that embraces a mix of regulatory approaches. The adoption of a mix of approaches implies that each will be complementary, rather than counterproductive. As such, responsive regulation is not a strategy based on a fixed framework: there is no best regulatory strategy, just a range of appropriate ones. As we have seen, Aalders and Wilthagen point out that regulation based on “reflexivity” should combine system monitoring, intermediary structure, corporate social responsibility and market-oriented regulatory tools together with “reflexivity”.

Under Basel II, the application of internal rating-based (IRB) approach reflects these aspects of responsiveness. On one hand, banks that develop effective IRB systems are expected to meet less onerous capital adequacy requirements. On the other hand, they can tailor their modeling approaches to the particular constellation of market, operational, and credit risks to which they are exposed. Because the capital adequacy requirement acts as a “tax” for banks, they will respond by using capital arbitrage as a mean of avoiding the “tax” (Engler & Terhi, 2005). To prevent excessive arbitrage activity, regulators must design an “optimal” risk-weighting system. However, if externally applied risk-weighting rules were the only instrument, this would make each bank’s internal risk-evaluation process and the in-house expertise that they develop irrelevant for determining the appropriate capital cost of different bank loans. Thus the risk-weighting system would be unresponsive to the existing systems of risk measurement. Ideally, an “optimal” risk-weighting system should be based on the “true” or “best” available measure of risk, which must accordingly respond to the bank’s actual risk profile. However, such “best” measures are difficult to construct, and if supervisors specify risk buckets that are too broad, then the bank’s expertise can instead be applied to regulatory arbitrage. If, to the contrary, risk buckets were too narrow, then incentives for developing expertise in risk

assessment would be reduced. (Benink & Wihlborg, 2002) Through internal monitoring, the risk measurement system will be more congruent with the real risk profile, since there is a strong incentive for banks to reduce “tax” through “optimal” measurement rather than through capital arbitrage. Furthermore, the evaluation process applied by supervisors to the IRB system must also “respond” to differences in the bank’s structure and performance.

The congruence found between Basel II and “reflexivity” & responsive regulation indicates the Basel II embraces certain attributes of those two notions, and Basel II even can be regarded as an empirical practice of “reflexivity” and responsive regulation in financial system.

5. Conclusion

The three pillars framework of Basel II represents a typical example of co-regulation embracing a mix of regulatory approaches. While the obligation to meet capital adequacy requirements under pillar one is regarded as a relatively direct form of intervention, we have seen that supervision must “respond” to variations in the structure and performance of banks (qualified banks can be authorized to adopt IRB). Other aspects of supervision reflect a spreading of the regulatory burden, both through public disclosure and market discipline and through the involvement of public interest groups as “third players”.

While Basel II as a regulatory strategy applied in financial system embraces both attributes of “reflexivity” and responsive regulation, at this stage it is hard to say how “smart” or effective Basel II will be due to a lack of empirical evidence. Under the impact of new technological developments, weak links in the financial chain are always going to appear unexpectedly. The role of securitized sub-prime or low-doc loans in the current US and Australian stock market slumps is an obvious case in point. New problems of implementation are also likely to emerge, especially in countries where there is an insufficient number of External Credit Assessment Institutions (ECAIs) with an inadequate coverage of the market. As such, it will be hard for banks and regulators to gather the necessary information for calculating capital requirements. The excessive

complexity under Basel II is not just a problem for banks that have to comply with the new rules. It is also a problem for the supervisor who has to validate the banks' methods of compliance. To meet the requirements of comprehensive public disclosure given the ever-present possibility of compounding financial crisis, various categories of risk, including operational risk, must be more precisely defined (here, various forms of strategic risk and reputation risk might need to be added to the list). As such, more research will need to be conducted into the effectiveness of market discipline. Therefore, to assess the extent to which Basel II will spread the burden of regulation and achieve real responsive enforcement, research will need to delve more deeply into empirical practices in banking system.

Reference

- Aalders Marius. 1993. "Regulation and In-Company environment management in the Netherlands" *Law & Policy* 15:75-94
- Aalders, M. & Wilthagen, T, 1997, "Moving Beyond Command-and-control: Reflexivity in the Regulation of Occupational Safety and Health and the Environment", *Law & Policy*, 19 (4): 415-443.
- Andrew Crockett (1997) "Why is financial stability a goal of public policy?" *Economic Review*, Federal Reserve Bank of Kansas City, Issue Q IV: 5-22.
- Ayres, I. & Braithwaite, J., 1992, *Responsive Regulation: Transcending the Deregulation Debate*, Oxford: Oxford University Press.
- Benink, H. and Wihlborg, C, 2002. "Making it effective with stronger market discipline", *European Financial Management*, 8 (1): 103-115.
- Braithwaite, John 1993. Chapter 6: 'Responsive regulation for Australia', *Business regulation and Australia's Future*, Peter Grabosky and John Braithwaite, Australian Institute of Criminology. Braithwaite, J & Grabosky, P. 1993. "*Business Regulation and Australia's Future*". Australian Institute of Criminology, Canberra
- Breathe, John, July 2002. Sound practices for the management and supervision of operational risk. Bank for International Settlement.
- Darity, W. (1992), "Financial Instability Hypothesis." In Eatwell, J., Milgate, M, and Newman P. eds., *The New Palgrave: A Dictionary of Money and Finance*. 2 (6): 75-90. New York: The Stockton Press.
- Davis, E Philip (1999) "Financial data needs for Macroprudential surveillance- What are the indicators of risks to domestic financial stability?" Centre for Central Banking Studies, Bank of England, London.
- Dean, Mitchell (1999), *Governmentality: power and rule in modern society*. London: SAGE.
- Engler, P & Terhi, J. 23 May 2005. "The effect of Capital requirement regulation on the transmission of monetary policy: Evidence from Austria". Oestereichische National Bank Working Paper 99

- Friedman, Milton (1968), "The Role of Monetary Policy: Presidential Address to AEA", *American Economic Review*, 58(1):1-17
- Friedman, Milton and Anna J. Schwartz (1986) "Has Government Any Role in Money?" *Journal of Monetary Economics*, 1(17): 37-62
- Hayek, Friedrich A. (1979): *Law, Legislation and Liberty: A new Statement of the Liberal Principles and Political Economy. Volume III: The Political Order of a Free People*. London: Routledge.
- Hayek, Friedrich von (1999), *Good Money: The New World*, Chicago, University of Chicago Press.
- Knight, Frank H. (1921), *Risk, Uncertainty, and Profit*. Hart, Schaffner, and Marx Prize Essays, no. 31. Boston and New York: Houghton Mifflin.
- Kindleberger, C. (1978). *Manias, Panics, and Crashes: A History of Financial Crises*, New York: Basic Books.
- Kwan, Simon, May 2004. "Testing the strong-form of Market discipline: the effects of Public Market signals on bank risk". Federal Reserve Bank of San Francisco
- McCreevy, Charlie, 21 June 2005, "Managing financial institutions: the key challenges". 58th international banking summer School, Dublin
- Mishkin. Frederic S (1991). "Asymmetric Information and Financial Crises: A Historical Perspective", NBER Working Papers 3400, National Bureau of Economic Research, Inc.
- Mishkin. Frederic S (1997). "Understanding Financial Crises: A Developing Country Perspective," NBER Working Papers 5600, National Bureau of Economic Research, Inc
- Mishkin. Frederic S & Herbertsson Tryggvi (2006) "Financial Stability in Iceland", Working Paper in Iceland Chamber of Commerce, House of Commerce.
- Minsky, Hyman P (1982) "The Federal Reserve: Between a Rock and a Hard Place." In *Can "It" Happen Again?* Essays on Instability and Finance. Armonk, N.Y.: M. E. Sharpe, Inc., 192–202.
- Minsky, Hyman P (1986) *Stabilizing an Unstable Economy*. New Haven: Yale University
- Munck, Ronaldo (2005): "Neoliberalism and Politics, and the Politics of Neoliberalism"; pp. 60-69 in Alfredo Saad-Filho and Deborah Johnston: *Neoliberalism – A Critical Reader*. London: Pluto Press.
- Nonet Phillippe & Selznick Philip (1978, 2001) *Law and Society in Transition: Toward Responsive Law*, New York: Octagon Books
- Pigou, Arthur Cecil (1936) "Mr. J.M. Keynes's General Theory", *Economica*, New Series, III: 115-32.
- Pigou, Arthur Cecil (1951) *Keynes's General Theory: A retrospective view*. London, Macmillan.
- Thorsen Dag Einar and Lie Amund (2005), "what is the neoliberalism", Working Paper of Department of Political Science University of Oslo
- Udeshi, Kishori, 2005, Financial system stability and Basel II- way forward. 17th Annual Convention of the Association of Professional Bankers, Colombo, Sri Lanka.

Washington: Federal Reserve Board, 1999. Using Subordinated Debt as an instrument of Market Discipline. Staff Study Paper 172, Study Group on Subordinated Notes and Debentures Federal Reserve System. Viewed 15 June 2006
<http://www.federalreserve.gov/>