The current issue and full text archive of this journal is available on Emerald Insight at:
www.emeraldinsight.com/1358-1988.htm

A conceptual framework for the Basel accords-based regulation

Jaffar Mohammed Ahmed
JMA Training and Consulting, Manama, Kingdom of Bahrain

Abstract

Purpose – The purpose of this paper is to describe a theoretical model for banking regulation in relation to Basel accords implementation. As a risk manager practitioner at a financial institution and in-charge of Basel implementation in a Basel accords environment of banking regulation, the author has been intrigued by the theoretical basis of the design of Basel accords. The objective was to investigate a theoretical model in the literature according to which the accords were designed. In case of deficiency in the literature of this model, the author seeks to provide a juxtaposition to the theoretical model that explains the accords adoption and implementation by regulators.

Design/methodology/approach – This paper presents a review of existing literature.

Findings – After reviewing of public interest theory, cultural theory, administration theory and the new-institutionalism theory, the author found little application of these theories to the capital-based regulation, particularly in relation to Basel 2 accord. There is deficiency in the literature of a conceptual theoretical framework based on which the author can explain the adoption of Basel accords. The author has provided a theoretical model that links these theories to the practice of banking regulation. This paper found deficiencies in theories of how banks should be regulated as compared to several theories that explains why banks are regulated.

Originality/value – After reviewing of public interest theory, cultural theory, administration theory and the new-institutionalism theory, the author found little application of these theories to the capital-based regulation, particularly in relation to Basel 2 accord. There is deficiency in the literature of a conceptual theoretical framework based on which the author can explain the adoption of Basel accords. The author has provided a theoretical model that links these theories to the practice of banking regulation. This paper found deficiencies in theories of how banks should be regulated as compared to several theories that explains why banks are regulated.

Keywords Conceptual framework, Banking regulation, Basel 2

Paper type Viewpoint

1. Introduction

The purpose of this paper is to describe a theoretical model for banking regulation in relation to the Basel accords implementation. As a risk manager at a financial institution and incharge of Basel implementation in a Basel accords environment of banking regulation, I have been intrigued by the theoretical basis of the design of the Basel accords. The objective was to investigate a theoretical model in the literature according to which the accords were designed. I juxtapose with a theoretical model that explains the accords adoption and implementation by regulators in light of the deficiency of this model. The paper is split into two parts. The first part discusses theories of regulation via three sections. Section 2.1 discusses the "positive economics" theories of regulation, which addresses why and how banks *are* regulated. Section 2.2 addresses the "normative economics" theories of regulation, which address how and why banks *should* be regulated. In Section 2.3, I discuss the neo-institutionalism theory. Section 2.4

Journal of Financial Regulation and Compliance
Vol. 24 No. 1, 2016
pp. 90-103
© Emerald Group Publishing Limited
1358-1988
DOI 10.1108/JFRC-02-2015-0007

المنارة للاستشارات
www.m

discusses the regulatory model adopted in this research, and the paper uses the second part to describe the institutional aspect of the banking system in Bahrain.

2. Theories of banking regulation

A researcher creates and maintains a paradigm of the phenomenon or the reality underlying his inquiry. This paradigm is defined as a set of perceptions, beliefs and assumptions that determine the approach and tools adopted by the researcher in the process of their inquiry. The process of inquiry would start with the examination of the ontological beliefs, i.e. the *reality of the phenomena* followed by the description of *how to go about discovering that reality* and then by the design of the methods (epistemological beliefs).

With regard to ontology, there are two positions that a researcher may take: nominalism or realism. Nominalism assumes that there exists no real structure of the objects under study in the world – only what the individual perceives them to be. Realism, on the other hand, asserts that there exists a real structure of the object under study and that "*reality*" exists independently from individual cognition (Willison, 2002).

With regard to epistemology, there are also two positions: positivism and anti-positivism. Positivism consists of studying the patterns and causative relationships among the constituents of social phenomena via scientific methods to prove this relationship. A positivist's definition of knowledge is that it can only be verified using scientific quantitative methods. Anti-positivists, however, reject the notion that knowledge is only recognized if validated scientifically. Hence, an anti-positivist rejects the notion of studying patterns and casual relationship of the elements of social phenomenon to understand a social world. Anti-positivists accept the notion that the understanding of a social world is only feasible if the researcher does not take the "observer" position but works from within the world to understand the perceptions, beliefs and concerns that this world constituents.

Banking regulation and supervision may be viewed as a social context. Social context is defined as:

> Human social environments encompass the immediate physical surroundings, social relationships, and cultural milieus within which defined groups of people function and interact. Components of the social environment include built infrastructure; industrial and occupational structure; labor markets; social and economic processes; wealth; social, human, and health services; power relations; government; race relations; social inequality; cultural practices; the arts; religious institutions and practices; and beliefs about place and community. (Barnet and Casper, 2001, p. 465).

Thus, banking regulation and supervision is a social context constructed by the interactions, negotiation and production of meanings by the constituent elements (Willison, 2002).

It is a social context comprising the regulatees (banks), the regulator, shareholders, depositors and debtors and general public. The behavior and action of each one of these elements is influenced by banking regulation and supervision. For example, when the regulator designs, the regulations will be influenced by the technological infrastructure at its site as well as at banks, the competence of bankers, the political sphere of the country, the strategic economic objectives, etc. These are in turn influenced by the power culture of the country. Furthermore, failure of one or both of these elements to reach its own objectives could potentially lead to a negative impact on another

المنارة للاستشارات
www.m

element such as the depositors in the event that a bank failed to remain solvent and liquid.

Banks and regulators view regulations and supervision differently. Banks view and react to regulations from a perspective of maximizing profit, growing lending and investment portfolios, increasing their market share, outperforming their rivals, attracting more deposits, etc. The priority of these perspectives varies across banks depending on the cultural attributes of its board of directors and management albeit the fact that they might be common attributes among all banks in the same country. Regulators, on another hand, view and design regulations from the perspective of macroeconomic and political climate as well as the impact on general public to avoid panic and distrust in the system. The different perspectives of the regulator and the regulatees if not properly aligned, communicated and understood by each one of them might make the regulation and supervision program ineffective. We can align them by understanding and explaining the "individual conciseness and subjectivity within the frame of reference of the participant as opposed to the observer of the action" (Burrel and Morgan, 1979, p. 28). Thus, insights from the social reality of this context and its elements can only be gathered by appreciating the perceptions, views, concerns, objectives, constraints and meanings they both ascribe to a negotiated phenomenon.

Banking regulation and supervision should not be studied independently from the cultural attributes and environment of banking in a country, i.e. we should not confine our study of banking regulation to set of quantitative thresholds and rules and their relationships and effectiveness to achieve the set of objectives that the regulators outline.

In light of the above philosophical underpinning, I found that a major part of the banking regulation literature follows the positive economics view of regulation[1]. Economic phenomena are explained in relation to a dichotomy between positive and normative economics. Positive economics is a branch of economics that studies the causality of behavioral relationships to variables in an economic context. In this literature, theories of banking are discussed within the scope of general economic regulation theories. For instance, theories that explain the rationale for regulation is an extension or application of a theory that explains why do we need to regulate a merchandising firm (Freixas and Rochet, 1999). Banks share some attributes of agents or players in the economy on which the general economic regulation theories are applied, but banks differ in many respects. For example, banks accept deposits, make loans, intermediate financial deals, etc. These are functions not necessarily ensured by other agents. These differences should be addressed by these theories to formulate one(s) that explain positively and normatively the banking regulation. Theories of economic regulation are defined as "explicit legislative and administration control over […] any facet of economy" (Posner, 1974). In the following sections, public interest theory, cultural theory, administrative theory and neo-institutionalism theory have been discussed. In discussing these theories, the applicability of each will be indicated to the banking regulation, in general, and to Basel-based regulation, in particular.

2.1 Positive economic theories of regulation

Economic phenomena are explained in relation to a dichotomy between positive and normative economics. Positive economics is a branch of economics that studies the causality of behavioral relationship of variables in an economic context. Theories of

المنارة للاستشارات

www.m

positive economics explain an economic phenomenon by focusing on its nature, its reason for being and its functions. In discussing banking regulation as an economic phenomenon, a positive economist addresses questions of how banking regulations are designed: Why do we need to regulate banks? Why banks are regulated in the current form? This section discusses three subsets of positive economics including public interest theory, administration theory and cultural theory.

2.1.1 Public interest theory. Public interest theory of regulation is a theory that designs regulation and supervision from the perspective of public interest only. It focuses on general public interest as opposed to the interest of lobbies, political parties, self-interest investors, etc. This theory views regulation as a benevolent hand that helps the general public survive among self-interest groups of individuals or firms (Baldwin and Cave, 2012).

Public interest theory holds that economic regulation is supplied in response to a demand by the public to protect their interest from malpractices and misconduct in the market place from market power, externalities[2] and information asymmetry[3] (Freixas and Rochet, 1999). It is spurred on by the behavior of market players in the free market in the form of agency problems in which these players pursue objectives that are detrimental to the shareholders and the public interest (Moran, 1986). A government is expected to intervene via structured regulation to ensure that pursuit of self-interest by the regulated entities does not encroach on that of the public. According to the theory, regulation should be designed to ensure that the public interest is hedged against imperfect competition, unbalanced market operation, missing markets and undesirable market results.

The principles of public interest theory of regulation have been applied to a wide range of economic issues such as anti-monopoly legislation (Baumol, 1977; Braeutigam, 1989), maintaining market equilibrium and anti-excessive competition legislation (Kahn, 1988, pp. 172-178 and information asymmetry (Hirshleifer and Riley, 1979; Nelson, 1970; Darby and Karni, 1973; Akerlof, 1970).

Public interest theory has been so far been applied to financial regulations and has been used to justify the imposition of capital-based regulations. Regulators justify their intervention in the banking sector through capital-based regulations to protect depositors' money in the banks. Loss of deposits is an important externality that bank regulators seek to reduce because of the significance of its consequences (Santos, 2000). We have not come across a theoretical model that explains *how* capital-based banking regulation *is* designed in light of the public interest theory. Safe banking implies banking regulations would reduce the possibility of the eruption of financial crisis and reduce the information asymmetry between banks and shareholders. This would eventually reduce systemic risk. In addition to reduction of systemic risk, individual banks and the entire banking system is expected to be "safer" within this regulation.

2.1.2 Administrative theory. Administrative theory deals with regulations from a position of a government's inherent control on economic activities and on the conduct of firms. There are three strands of the theory: tools of administration, data for the administration and implementation of the tools. First, regulation as an administrative tool requires having various classes of tools that are specifically customized to each economic phenomena or problem. Applying a tool to the wrong economic problem results in a regulatory failure. For example, a government seeking to control a monopoly problem in its country via a "price control" tool would aggregate solid empirical

المنارة للاستشارات

www.m

evidence of the suitability of this tool to circumvent the monopoly problem. Breyer (1982) and Hood (1984) attributed the failure of economic regulation to an administrative failure to properly match a control tool to an economic problem or phenomena. In this context, we can relate to the Basel-based banking accords that are a tool adopted by regulators to control the capital adequacy problem facing banks.

Second, aspects of the theory relate to the type, volume, detail and periodicity of information gathered by the regulator from the regulated entities. It views regulation from the angle of administrative power to learn and react on the intelligence. The regulator uses this bank information to recommend or devise a plan to rectify malpractices in the regulated entities. This aspect has been applied and studied in the field of organizations behavior, and information gathering by the regulator turns out to be eventually monotonous, symbolic, box-ticking exercises that are in certain occasions unnecessarily strict (Wilensky, 1967; Feldman and March, 1981). It has also been found that the regulated entities tend to report information that is too arcane and complex to enable the regulator to take action. There is however a deficiency in the application of this aspect of administrative theory to the banking regulation and the intelligence gathered by the banking regulator. The theory does not address how useful the regulator finds the periodic reporting submissions in making effective and swift decisions about regulation and supervision or the value the regulatees find added to them from the reporting requirements. Nor does the theory address the economic benefits of adhering to the imposed questions or how the regulator utilizes the gathered intelligence.

The third aspect of the theory is on the issue of implementing regulations by the regulatory bodies. This aspect is strongly related to the strand of the theory in relation to the intelligence discussed above. It demonstrates that regulation is an administrative tool in the hands of the government – there could be a regulatory implementation failure due to lack of expertise and specialization of the regulator staff. Possible reasons for why the regulator may fail to act swiftly and effectively in light of the submitted information from the regulated entities are lack of proper coordination, lack of communication or the lack of understanding regarding what the information is conveying due to a lack of specialization or appropriate training. A lack of expertise would render the regulation redundant and dangerous (Pressman and Wildavsky, 1973). It could be deemed dangerous because if the regulated entities submit all the information (information intelligence) to the regulator and if the staff of the regulator fails to fathom the indications in the reports (due to lack of specialization or competence) and thus fails to act upon them swiftly, then it is the regulator who would need to justify and explain the eventual crisis in light of the submitted information.

As in the case of the first and second strands of this theory, there is a deficiency of a theoretical model that applies this strand to the theory of banking regulation. A literature analysis using this theory has been conducted for the case in which the regulator finds banks cognizant of the regulation and adequately adept in its implementation or if the regulator finds the sophistication of the regulation aligned with the expertise level in banks. Similarly, there is lack of conceptual framework for studying the alignment between the level of expertise at banks and that at the regulator to the complexities in the banking system. These gaps are important to be studied and theoretically conceptualized. Let us take an example of justifying banking regulations and supervision by the administrative theory, i.e. by gathering intelligence and

المنارة للاستشارات
www.m

imposing a tool such as the capital adequacy ratio (CAR) to control the capital at risk. If there is a gap in expertise between the administrator (i.e. the regulator) and banks, then the regulator might not appreciate the severity of the implications of what the CAR-detailed calculations reveal. The regulator might also not adequately recognize the potential manipulation in the calculation. The manipulation and oversight of the negative implications that CAR reports reveal could lead to a disruption in the banking system if the regulator is not cognizant – this would make the regulations useless.

2.1.3 Cultural theory. Cultural theory is a theory that focuses on the impact of the cultural features of each nation on its regulatory and supervisory style. National peculiar attributes such as (inter alia) traditions, values, political systems and demographics play major roles in designing and implementing regulations on any social or economic activity. According to this theory, regulations are difficult to be standardized across countries. Cultural attributes influence the design and implementation of regulations. The impact of national culture extends to all regulations in a country. Some nations regulate financial system in a conceptual framework similar to the way that they regulate trafficking, educational system, etc. (Moran, 1986).

For example, Ogus (1995) and Williamson (1985) found that the culture in United Kingdom is based on mutual trust between the regulator and the regulatees that leads to a design of regulation policy with minimal "checks and balances" and focused self-regulation. In the USA, however, there is adversarial and distrusting attitudes between the regulator and regulatees, which results in a large number of checks and balances including prescriptive rules and pluralized perspectives (Jing and Graham, 2007).

The principles of cultural theory have been applied to health, work safety, (Kelman, 1981) and environmental protection (Vogel, 1978, 1983a, 1983b), but an account of the application of cultural theory to banking regulations particularly with regard to the capital-regulation and Basel accords could not be found. The Basel accords, as well as other papers issued by the Basel Committee of Banking Supervision (BCBS, 2004) such as those related to corporate governance, board and executive remuneration are adopted by many developing and developed countries. In the implementation of the requirements in these documents, countries would inevitably encounter requirements that are in conflict or at least not in harmony with the cultural sphere of the country. For instance, BCB issued a paper of guidance and requirements for the bank's executive management and board remunerations. One item of these requirements is that a bank must disclose the breakdown of the monthly and annual remuneration package of each executive. This requirement has been viewed in the Gulf region of the Middle East as a breach of the executive's personal life and information. While it might be acceptable in the West that such information is disclosed with no or minimal sensitivity, it is considered very sensitive in the Gulf. Banks in this region heavily protested compliance to this requirement when their central banks announced it – they have successfully lobbied against its implementation. Regulators, to quell the resistance and to comply with the BCBS papers in spirit compromised and asked for the monthly and annual remuneration packages to be disclosed as aggregate figures without mentioning specific names. This small example gives us insight into the importance of observing the country's culture while designing the regulation and supervision.

المنارة للاستشارات

www.m

2.2 Normative economic theories of regulation

The focus of normative economics is on values or what outcomes and goals economic phenomena *should be*. In discussing banking regulations as an economic phenomenon, positive economists focus on explaining the ways banking regulations are carried out and expounding the reasons why they are carried out in their current form. Normative economists focus on how banking regulations *should be* designed and implemented to achieve the regulators objective such as increasing the competition and reduction of the information asymmetry cost. From this definition and in the context of banking regulation, normative economics should focus on what regulations and supervision would achieve the banking regulator objectives such as reducing systemic risk, enhancing risk management at banks and protecting depositors' money.

In the professional and academic literature, the focus is prevalently on the positive economics of regulation on the Basel accords. The Basel accords are merely a concordat among developed countries describing recommendations perceived to be the "cure" for the banking crises that hit banks in these countries since the 1970s. The focus in the literate is dichotomous – proponents or opponents of the Basel accords. Researchers who are opponents of the Basel accords and its capital-based regulation have numerically studied how the accords in their existing form cannot achieve the regulator's objectives within a certain context. However, they do not provide a theory of how should banks be regulated if the accords cannot achieve the objectives.

2.3 New institutionalism theory of regulation

Thus far, I have been discussing theories of banking regulation to understand why banks are regulated, but I could not find theories that help us understand how banks *should* be regulated. I next discuss a theory that might help us understand the institutional forces that influence how a regulator chooses a particular policy or regulatory tool. In this section, I use the concepts in the neo-institutionalism theory to understand the effect of institutional forces on the banking regulation in Bahrain. By institutional forces, I mean not only the influence of the regulator on the regulated entities (i.e. banks) but also the influence of these entities on the regulator itself.

New institutionalism theory (also referred to as *neo*-institutionalism theory in the literature) is an explanation of the relationship between institutions in a given context from the sociological aspect. There are various strands of neo-institutionalism theory such as sociological, normative, historical, etc. The normative strand of this theory is of most relevance to this paper.

This theory describes how institutions behave, react to the regulator rules and interact with each other beyond the economic norms or rules. For example, in an economic setting such as a price regulation, institutions involved in this setting are the firms that offer the goods or services, customers of these firms and the regulator. The regulators of these firms impose the rules and constraints such as the maximum price that a firm can ask for its products or services. The new institutionalism theory studies many elements: How would these firms react to the price limit? Will the firms collaborate or collide to react to the price limit? Will the regulator consider non-economic factors when designing and implementing the price limit? How will the regulator interact with the firms as they consider their reaction?. These multilateral interactions are also called the "rules of the game" (North, 1995).

المنارة للاستشارات

www.m

These can similarly describe banking regulation. The new-institutionalism theory studies whether the banks' regulators consider the sociological reasons behind designing the rules and regulation, how banks respond to these rules, how banks interact with each other within these regulations and how banking regulations are set, implemented, altered or dramatically changed. At this point, there are two major questions. First, because new-institutionalism theory's focus is on the sociology of relationships that entail values, believes, norms, etc., then what is the difference between it and the cultural theory discussed in Subsection 3.1.3 above? Second, why would we need to discuss neo-institutionalism theory in the context of this paper? These questions are answered below.

In regard to the difference between the cultural and new-institutional theory, there is a common thinking found in the two theories (Grendstad and Selle, 1995). These common thinking stems from the role a national culture plays onto the regulation policy and the behavior of the regulator as a whole. The cultural theory in regulation narrowly addresses this role without delving into the differences between the types of industries or institutions within the same nation. For instance, a cultural theory explains how regulation in France is protective and prerogative (Hayward, 1983), while in the USA, it is adversarial and coercive (Vogel, 1983a, 1983b; Moran, 1986), and in UK, it is based on cooperative self-regulation and not prescriptive regulation (Jing and Graham, 2007; Ogus, 1995; Williamson, 1985). The theory does not, however, explain the variations between firms within the same or cross-industries, i.e. whether the influence of the culture is more or less prevalent in the banking regulation versus health or safety regulation. These variations are addressed by new-institutionalism theory. Thus, cultural theory is construed as an initial form of new-intuitionalism (Grendstad and Selle, 1995).

The second question asks why would we need to discuss the neo institutionalism theory in this paper. A partial answer has already been discussed – the cultural theory explains only the cultural influence on the regulation. Choice of a regulation policy, its implementation and the confluence of the implementation toward achieving the regulator objectives hinge on a myriad of factors besides the culture including how the regulated entities fathom the appropriateness and logic of regulation policy – this is not explained in the cultural theory. It is the new-institutionalism theory that explains how the understanding of the applicability and repercussion of the regulation policy affects the behavior of the regulated entities. Logic of appropriateness of a regulation policy means that actions by the regulated entities that are "matched to situations by means of rules organized into identities" (March and Heath, 1994). This concept of appropriateness in the new-institutionalism theory has been applied to the design of the questionnaires and the interview questions in relationship to the appropriateness of the Basel approaches and capital-based regulation to each bank as well as how a bank is acting toward any mismatch between the regulation and the real situations it encounters.

As indicated above, each theory has partial applications to the banking regulation, and this applicability varies. It narrows when I discuss Basel 2 as in the case of cultural theory and extend this to the case of administrative theory. The conclusion that can be drawn from this theoretical discussion thus far is that it is not useful to rely solely on one theory to explain the capital and Basel regulations. I developed, in light of all the theories discussed above, a theoretical model that provides a juxtaposition of a conceptual

المنارة للاستشارات

www.m

framework for banking regulation based on Basel accords. This is discussed further below.

2.4 Banking regulation theoretical conceptual framework
The following diagram depicts the concept that was developed from practical experience and in light of the theories indicated earlier in the chapter.

Figure 1 illustrates the application of the theories discussed in the sections above. As indicated, banking regulations in practice cannot be completely explained by one theory. The public interest theory, cultural theory, administrative theory and new-institutionalization theory collectively provide an explanation of the existing banking regulation and supervision. Banking regulations manifest themselves in three ways: a regulatory approach, the supervisory program and the regulatory tools. The regulatory approach can be classified in terms of economic scope into two categories: micro-prudential and macro-prudential regulations. There are two sets of regulation methods – rule-based regulation and principle-based regulations. The economic and methodological scopes are not mutually exclusive. These approaches can be applied in parallel, i.e. a regulator might apply a micro-prudential rules-based regulation or macro-prudential rules based regulation. Also, a combination within the same category is also possible, i.e. a regulator could design its regulations by addressing the micro and macro-economic factors but from a principle-based scope or rules-based scope.

2.4.1 Rule and principle-based regulation. The rules-based approach in regulations implies dictating prescriptive detailed rules and processes by a bank regulator. In

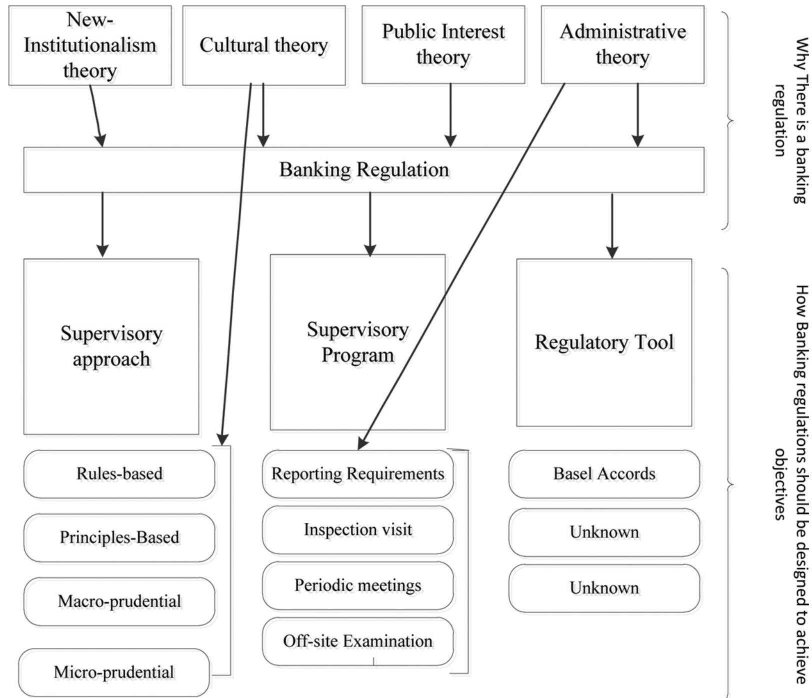

Figure 1.
Banking regulation theoretical conceptual framework

المنارة للاستشارات
www.m

rules-based setting, there is little regard given to the peculiarities of each bank such as the size and business model. Banks are expected to abide by these rules, and any exceptions they have are justified and approved by the regulator. In contrast to rules-based regulation, in principles-based regulation, the regulator outlines to the banks the principles governing their conduct and the expected desired outcomes. The regulator would have to ensure consequently whether the banks have met these expectations. In this approach, there is a bigger room for direct communication and dialogue between the regulator and the regulated. There is also a shift in this approach as compared to the rules-based scheme in which the emphasis is on the rigorousness of the rules to the rigorousness and competencies of the regulator to *judge* whether the expected outcomes have been met and – most importantly – to devise a plan to work together with the bank to get things done correctly.

2.4.2 Micro and macro-prudential regulation. In the beginning of the discussion about standardized financial regulation in light of the financial crises that erupted in the 1970s and 1980s, the focus was on micro-prudential supervision (Kapstein, 1991). At that time, the term "micro-prudential" was not so popular in the banking literature. The concept was established after the financial crises of the 2000s and 1990s. The micro-prudential approach can be defined as a model of supervision designed on the premises that the entire banking system can be sound if the individual banks are safe and sound through a CAR. It has been argued that this approach caused and escalated the systemic risk in the banking system because it disregards the correlation between the decisions taken by banks and their impact on the price and interest rate levels within the system and endogenous aggregated risks of this correlation Persaud (2009).

This argument has a lot of merit. Indeed, when the Basel Committee analyzed the 2007 crises, it concluded something similar and included these two measures in its Basel 3 suggestions. Macro-prudential regulation, on the other hand is defined as:

> […] the assessment and monitoring of the strengths and vulnerabilities of financial systems in terms of macro-prudential indicators comprising both financial soundness indicators and other macroeconomic indicators such as GDP growth and inflation along with information on the structure of the financial system, qualitative information on the institutional and regulatory framework, particularly through assessments of compliance with international financial sector standards and codes, and the outcome of stress tests (Sundararajan *et al.*, 2002).

The difference between micro-prudential regulation and macro-prudential regulation is that the former focuses more on the safety of the banks and implicitly presumes that the safety of the parts will guarantee the safety of the whole. Macro-prudential regulation, on the other hand, assesses the soundness and safety of the banking system by the economic indicators of the financial sector, implications of GDP, employment, interest rate, etc. The difference between the two approaches is that macro-prudential regulation is intended to reduce systemic risk, while the micro-prudential regulation is intended to limit the idiosyncratic risk of banks (Crockett, 2000; Chull, 2006; Borio, 2003). It might be optimal to marry both regulations to enhance the financial stability of banks (Crockett, 2000).

From the definition of each approach and having indicated their shortcomings, it seems intuitive and optimal to marry the four approaches. There is a consensus in the literature that rules-based regulation and the micro-prudential approaches cannot create sound financial and banking systems – the recent banking crises revealed their inability

المنارة للاستشارات

www.m

to do so. To the best of my knowledge, there is no research paper that has discussed the viability of marrying the four approaches.

2.4.3 Supervisory program. The oversight activities of the regulator are meant to ensure that the banks adhere to all of the issued rules and regulations. The regulator also has to assess their performance, governance and risks. These activities include:

- *Reporting requirements*: Periodic financial and non-financial reports submitted by banks to the regulator.
- *Inspection visit*: Onsite periodic visits by the regulator to conduct substantive assessments of the performance and risks management of the bank. It includes an assessment of controls, systems and records.
- *Periodic meetings*: Prudential meetings held between the central bank and the bank management or board of directors.
- *Off-site examination*: Offsite oversight activities to identify, assess and monitor regulatory returns, audited financial statements, compliance matters and overall assessment of risk managements and financial performance of banks.

2.4.4 Regulatory tool. Banking regulation includes several areas such as capital regulation, corporate governance, anti-money laundering, etc. Regulatory tools are used to refer to capital regulation only. The Basel accords are regulatory tools adopted by countries to curtail the risk that might impinge a bank capital. It is stated that Basel 2 is merely a tool because CAR is not an end in itself. It is a threshold that guides the regulator to the areas of weaknesses in the bank's capital or excessive risks in its credit or market portfolios. By the same token, internal capital adequacy assessment process (ICAAP) in Pillar 2 is not an end in itself either. It shows the regulator how a bank quantifies its risks and how its systemic risk, risk management, internal control and policies restrain these risks. The "unknown" in the figure refers to the fact that the Basel accords are merely a tool that is acceptable by tens of countries – this does not mean that the Basel accords define how banking regulations should operate. There is voluminous literature on how the Basel accords failed to achieve its own objectives in the 2007 crisis. Thus, in our opinion, there should be research for another tool for banking regulation. This new tool should first be conceptually theorized while considering the cultural attributes, institutional features and the political and economic sphere of a country.

Conclusion

Banking regulation and supervision cannot be explained by one or a couple of theories. It cannot be justified on the ground of one discipline only such the economic characteristics of the operating environment. Banking regulations and supervision should be designed based on the economic motivations to protect the financial system from crisis. It should also be deliberated based on the unique cultural attributes of the banks' operating environment. Furthermore, the institutional characteristics within each country should be studied by a banking regulator diligently prior to the imposition of the particularities of the rules and regulation.

It is found that the Basel II- and III-based regulations were not theoretically conceptualized or explained in the literature by more than limited economic backgrounds such as reduced systemic risk and protection of the depositors' money.

المنارة للاستشارات
www.m

Here, a theoretical framework was provided for banking regulation and supervision that caters to differences in political cultural, economic and institutional national attributes. This framework could be envisaged as a blueprint for the design of rules and supervision program that are not confined to the Basel accord requirements.

Notes

1. It is referred to as "positive regulation" throughout the text as opposed to "normative regulation" which follows the normative economic views of regulation.
2. Externality is defined as a cost or benefit occurring to an individual or a firm without choosing such cost or benefit to incur. In economics, there are two types of externalities: positive and negative. Negative externality is, for instance, the loss a depositor incurs as a result of bank's bankruptcies.
3. Information asymmetry: in decision-making, one party has more or better information than the other. In economics setting, information asymmetry occurs when the buyer and the seller do not have access to the same level of information.

References

Akerlof, G.A. (1970), "The markets for 'â€˜Lemonsâ€™': qualitative uncertainty and the market mechanism". *Quarterly Journal of Economics*, Vol. 84 No. 3, pp. 488-500.

Baldwin, R. and Cave, M. (2012), *Understanding Regulation*, Oxford University Press, Oxford.

Barnett, E. and Casper, M. (2001), "A definition of 'social environment'", *American Journal of Public Health*, Vol. 3 No. 91, p. 465.

Baumol, W. (1977), *Economic Theory and Operations Analysis*, (4th ed.), Prentice Hall.

BCBS (2004), *Basel II: International Convergence of Capital Measurement And Capital Standards: A Revised Framework*, Bank for International Settlements, Basel.

Borio, C. (2003), "Towards a macroprudential framework for financial supervision and regulation?", *CESifo Economic Studies*, Vol. 49 No. 2, pp. 181-215.

Braeutigam, R.R. (1989), "Optimal policies for natural monopolies", in Schmalensee, R. and Willig, R.D. (Eds), *Handbook of Industrial Organization II*, 1st ed., Amesterdam.

Breyer, S.G. (1982), *Regulation and its Reform*, Harvard University Press, Cambridge, MA.

Burrell, G. and Morgan, G. (1979), *Sociological Paradigms and Organizational Analysis*, Heinemann, London.

Chull, P. (2006), "A macroprudential approach to financial supervision and regulation: conceptual and operational issues", *IMF-FSC/FSS International Conference on Macroprudential Supervision*, *Chair*.

Crockett, A. (2000), "Marrying the micro- and macro-prudential dimensions of financial stability", *Eleventh International Conference of Banking Supervisors*, *Basel*.

Darby, M.R. and Karni, E. (1973), "Free competition and the optimal amount of fraud", *The Journal of Law and Economics*, Vol. 16 No. 1, p. 67.

Feldman, M.S. and March, J.G. (1981), "Information in organizations as signal and symbol", *Administrative Science Quarterly*, Vol. 26 No. 2, p. 171.

Freixas, X. and Rochet, J.-C. (1999), *Microeconomics of Banking*, MIT Press, Cambridge, MA.

Grendstad, G. and Selle, P. (1995), "Cultural theory and the new institutionalism", *Journal of Theoretical Politics*, Vol. 7 No. 1, pp. 5-27.

Hayward, J.E.S. (1983), *Governing France*, Weidenfeld and Nicolson, London.

المنارة للاستشارات

www.m

Hirshleifer, J. and Riley, J.G. (1979), "The analytics of uncertainty and information". *Journal of Economic Literature*, Vol. 17 No. 4, pp. 1375-1421.

Hood, C. (1984), *The Tools of Government*, Macmillan, London.

Jing, R. and Graham, J.L. (2007), "Values versus regulations: how culture plays its role", *Journal of Business Ethics*, Vol. 80 No. 4, pp. 791-806.

Kahn, A.E. (1988), *The Economics of Regulation*, The MIT press, Cambridge (Mass).

Kapstein, E. (1991), "Supervising international banks: origins and implications of basle accord", *Essays in International Finance*, No. 185.

Kelman, S. (1981), *Regulating America, Regulating Sweden: A Comparative Study of Occupational Safety and Health Policy*, MIT Press, Cambridge.

March, J.G. and Heath, C. (1994), *A Primer On Decision Making*, Free Press, New York, NY.

Moran, M. (1986), "Theories of regulation and changes in regulation: the case of financial markets", *Political Studies*, Vol. 34 No. 2, pp. 185-201.

Nelson, P. (1970), "Information and consumer behavior", *Journal of Political Economy*, Vol. 78 No. 2, pp. 311-329.

North, D.C. (1995), *Institutions, Institutional Change, and Economic Performance*, Cambridge University Press, Cambridge.

Ogus, A. (1995), "Rethinking self-regulation", *Oxford Journal of Legal Studies*, Vol. 15 No. 1, pp. 97-108.

Persaud, A. (2009), *Macro-Prudential Regulation*, World Bank, Washington, DC, available at: www.openknowledge.worldbank.org/handle/10986/10243, License: CC BY 3.0 Unported.

Posner, R.A. (1974), "Theories of economic regulation", *The Bell Journal of Economics and Management Science*, Vol. 5 No. 2, p. 335.

Pressman, J. and Wildavsky, A. (1973), *Implementation*, University of California Press, London.

Santos, J.A.C. (2000), "Bank capital regulation in contemporary banking theory: a review of the literature", *Financial Markets, Institutions & Instruments*, Vol. 10 No. 2, pp. 41-84.

Sundararajan, V., Enoch, C., San José, A., Hilbers, P., Krueger, R., Moretti, M. and Slack, G. (2002), "Financial soundness indicators: analytical aspects and country practices", IMF Occasional Paper 212, International Monetary Fund, Washington, DC.

Vogel, D. (1983a), "Co-operative regulation: environmental protection in Great Britain", *The Public Interest*, Vol. 72 No. 1, pp. 88-106.

Vogel, D. (1983b), "Comparing policy styles: environmental protection in the United States and Great Britain", *Public Administration Bulletin*, Vol. 42 No. 1, pp. 65-78.

Vogel, D. (1978), "Why businessmen distrust their state: the political consciousness of American corporate executives", *British Journal of Political Science*, Vol. 8 No. 1, p. 45.

Wilensky, H. (1967), *Organisational Intelligence*, Basic Books, New York, NY.

Williamson, O.E. (1985), *The Economic Institutions of Capitalism*, Free Press, New York, NY.

Willison, R. (2002), "Opportunities for computer abuse: assessing a crime specific approach in the case of barings bank", *London School of Economics and Political Science*.

Further reading

Cbb.gov.bh. (2014), "Central bank of Bahrain", N.p., 2015, Web. 11 November.

Grigorian, D. and Manole, V. (2013), "Cross-country nonparametric analysis of Bahrains banking system", *Acta Universitatis Sapientiae, Economics and Business*, Vol. 1 No. 1.

المنارة للاستشارات
www.m

White, W. (2004), *Making Macroprudential Concerns Operational*, *Financial Stability Symposium*, Amsterdam.

About the author

Jaffar Mohammed Ahmed is a Professional Trainer, Lecturer and Consultant. Jaffar is the General Manager at JMA Business Consulting & Financial Learning. Jaffar's consulting services focus on instilling international best practices in risk management, Basel accords implementation, compliance and corporate governance in financial institutions all over the Middle East. Jaffar also coaches staff of banks to equip and prepare them to handle their responsibilities efficiently. In particular, Jaffar works with his clients in the design and implementation of their enterprise risk management framework and the integration between risk management, internal control, internal audit and strategy. Jaffar Mohammed Ahmed can be contacted at: jaffar.alomran@gmail.com

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**

المنارة للاستشارات

www.m

Reproduced with permission of copyright owner. Further reproduction prohibited without permission.

المنارة للاستشارات

www.m