BASEL III AND PRUDENT RISK MANAGEMENT IN BANKING: CONTINUING THE CYCLE OF FIXING PAST CRISES

François Laurens*

Abstract

Financial crises have had a significant impact on bank regulation and supervision. Reforms are often focussed on correcting past failings. Following the 2007 financial crisis, Basel III reforms have been introduced with a view to promote a more resilient banking sector and to improve the banking sector's ability to absorb shocks arising from financial distress. A review of the Basel III reforms and the literature on the link between capital adequacy regulations and bank stability indicates that these regulations are unlikely to prevent the failure of banks resulting in systemic crises.

Keywords: Banking, Risk Management, Financial Crisis, Basel III, Capital Adequacy

**Swiss Management Center (SMC) University, 33 Ruth Avenue, Hyde Park, South Africa*
Tel: +27824416347
Email: laurensfam@mweb.co.za

1 Introduction

Sustainable economic growth, inter alia, depends on a healthy banking system in which financial intermediation between savers and investors facilitates efficient credit allocation (Fullenkamp and Sharma, 2012; Basel Committee on Banking Supervision, 2010; Bootle, 2009; Wolf, 2009; Kerr and Nanda, 2008; Demirguc-Kunt, Detragiache and Tressel, 2006). Businesses (small, medium and large) and governments depend on banks to fulfil their role as financial intermediaries at a domestic and global level (Basel Committee on Banking Supervision, 2010; Wolf 2009).

In view of the importance of the services that banks provide to society, policymakers and regulators view the industry as too important to be left to the bankers without supervision and regulation, with the result that the banking industry is one of the most regulated and monitored industries (Tchana Tchana, 2008a; 2008b; Bank for International Settlements, 2008; Mishkin, 2000). The aim of prudential regulation and supervision is to create an environment in which the financial system can perform the functions required of it by society without undue risk to society (Fullenkamp and Sharma, 2012; Mishkin, 2000).

Global banking crises have been omnipresent during the past decade (Reinhart and Rogoff, 2009), resulting in negative systemic consequences and significant bailout costs to governments (Hellmann, Murdock and Stiglitz, 2000). These financial crises have had a significant impact on bank regulation and supervision (Tchana Tchana, 2008a). Reforms are often focussed on correcting past abuses and failings, and the tendency is to introduce legislation that will prevent the last crisis (Filipiak, 2009). Earlier banking crises were symptomatic of bank runs (Gorton, 2009), and the 1929 financial crisis started with isolated runs of depositors, which then developed into mass panic and eventually financial collapse (Canova, 1995). Depositors' lack of information about banks and their assets (asymmetric information problem), caused panic because they did not have sufficient knowledge to judge whether their bank would be able to repay their deposits (Mishkin, 2000). Following the 1929 bank crisis regulators responded by introducing explicit government safety-net (deposit insurance) reforms (Mishkin, 2000). In addition to explicit deposit insurance, many regulators provide an implicit safety-net, that is, governments are reluctant to allow 'too big to fail' and 'systemic important financial institutions' to fail (Sorkin, 2009; Greenspan, 2008; Mishkin, 2000).

Unfortunately, hurried regulatory responses and reforms (such as the safety-net provisions) undertaken in the aftermath of a crisis (Fullenkamp and Sharma, 2012; Taleb, 2010) do not always result in good financial regulation (Fullenkamp and Sharma, 2012), as a result of failure to fully analyze the possible unintended consequences that may result from the reforms (Neal and White, 2012). A large body of research profess that the introduction of safety-net for depositors (regulations to prevent the past crises) increased the moral hazard issue in banking (Tchana Tchana, 2008b; Wallison, 2007; Mishkin, 2000; Kroszner, 1998), which in turn contributed to the banking crisis which started in 2007 (Tett, 2009;

Wolf, 2009; Hellmann, et al., 2000). This crisis spurred regulators to introduce new reforms which are aimed at correcting the failures of the recent crisis, and the shortcomings of past regulation.

The alarming rate at which the panic in financial markets in 2007 spread globally (Hawley, 2012; Greenspan, 2008) highlighted the interconnectedness of the global financial system (Canova, 1995). The 2007 crisis mostly involved bank runs on other banks (Gorton, 2009), causing the inter-bank market to freeze due to asymmetric information about where the exposures to this shock resided (Tett, 2009; Mishkin, 2000). Considering that recessions associated with banking crises are severe, and that it takes a long time for the financial system to rebuild its lending capacity (Bernanke, 1983), global financial stability became the focus of financial regulation (Schwerter, 2011; Tchana Tchana, 2008a; Allen and Herring, 2001) following the 2007 financial crisis.

An inherent weakness of the global regulatory environment is the absence of a global bank regulator that is able to regulate and supervise banks across national borders (Borio and Filosa, 1994). Moreover, political incentives encourage national regulators to focus on national interests only (Stoltz, 2002). The global nature of banks and the interconnectedness of the global financial system require a harmonization of regulation and supervision activities to avoid regulatory arbitrage (Canova, 1995). The Basel Committee on Banking Supervision (BCBS) attempts to fill this vacuum.

This paper examines the role of BCBS in promoting prudent risk management in banking. Section 2 discusses the rationale for the Basel III reforms. Section 3 considers the implementation of the Basel III reforms by national regulators. Section 4 reviews the link between capital adequacy requirements and financial stability. Section 5 considers Value at Risk (Bell Curve) based risk management practise issues. Section 6 concludes with a submission that the key to financial stability is prudent supervision rather than more regulation.

2 Rationale for Basel III reforms

The financial crisis that started in 2007 and the ongoing banking crisis provided further opportunity for fundamental reform of inadequate risk management practices in the financial industry (KPMG, 2011; Janson, 2009). In response to early lessons learned from the 2007 financial crisis, the Basel Committee on Banking Supervision (BCBS) proposed enhancements to the measurement of risks related to securitization and trading book exposures, and in December 2010 BCBS published Basel III, a comprehensive set of reforms to "raise the resilience of banks" (Basel Committee on Banking Supervision, 2012, p.3). These reforms aim to improve the Basel II capital adequacy framework which replaced the 1988 Basel Accord (Basel Committee on Banking Supervision, 2009) with regard to the treatment of securitizations, off-balance sheet vehicles, and trading exposures. These enhancements are an effort by the BCBS to "strengthen the regulation and supervision of internationally active banks, in light of the weaknesses revealed by the financial market crisis which started in 2007" (Basel Committee on Banking Supervision, 2009, p.4). These reforms are aimed at fixing the failures which caused the 2007 financial crisis relating to the subprime crisis in the U.S housing market which was funded through asset backed securitization (Lange, 2004), and the global distribution of the related risk via the shadow banking system (Gorton, 2009; El-Erian, 2008; James, 1987). This supports the academic view that off-balance sheet transactions pose a great risk for the banking system, and that capital regulation should focus on mitigating this systemic risk (Weissman and Donahue, 2009; Johnson and Murphy, 1987). The Basel III provisions were endorsed by the G20 summit in Seoul in 2010 and implementation starts from 1 January 2013 (Basel Committee on Banking Supervision, 2012).

According to the BCBS (Basel Committee on Banking Supervision, 2011), the Basel III reforms have two primary objectives: (i) to strengthen global capital and liquidity regulations with the goal of promoting a more resilient banking sector; and (ii) to improve the banking sector's ability to absorb shocks arising from financial stress, which would reduce systemic contagion risk. To achieve these goals, the Basel III reforms address three main areas: (i) capital reform relating to quality and quantity of capital, complete risk coverage, leverage ratio, capital conservation buffers, and counter-cyclical capital buffers; (ii) short and long term liquidity ratio reforms; and (iii) general provisions to improve stability of the financial system, including capital surcharges for systemic banks, high capital for inter-financial exposures, higher capital for systemic derivatives. The issues relating to implementation of these reforms by national regulators and the effectiveness of the risk management provisions require consideration.

3 Implementation of the Basel III reforms by national regulators

The BCBS does not possess formal supranational supervisory authority (Basel Committee on Banking Supervision, 2009) and merely provides a forum for cooperation between its member countries on supervisory matters, whilst promoting sound supervisory standards globally. The success of the Basel guidelines depends on national governments and regulators implementing these in their respective jurisdictions (Usui, 2003) to remove a source for competitive inequality arising from differences in national capital requirements (Basel Committee on Banking Supervision, 2009) which encourages regulatory arbitrage (Canova, 1995). An obstacle to implementation is the need to accommodate a wide spectrum of national cultures, policy holders' views, regulatory frameworks and approaches to financial regulation. This is evidenced by the fact that there are a number of BCBS members who have missed the agreed implementation dates for Basel II (Basel Committee on Banking Supervision, 2012). In addition, according to the Bank for International Settlements (Bank for International Settlements Annual Report, 2012; Cohen, 2012; Groendahl, 2012), the implementation of the new Basel reforms are lagging behind and banks will need to be encouraged by governments and regulators to improve their balance sheets sufficiently.

The BCBS has established a comprehensive implementation review process to ensure that the Basel III framework is implemented by its members in their jurisdictions (Basel Committee on Banking Supervision, 2012). Despite this, various matters are still outstanding and need to be resolved, including the identification and regulation of 'systemically important' banks, agreement regarding forward-looking provisions to limit the build-up in credit growth through under-pricing of future risk, development of the counter-cycle capital buffer provisions, and revision of the Net Stable Funding Ratio for long-term liquidity following. There are also unresolved issues between Basel III and other national legislative reforms such as the Dodd-Frank Act in the U.S. (KPMG, 2011).

It remains to be seen to what extent and when governments and bank regulators will implement these provisions, and how effective this new framework will be in mitigating systemic risk in future.

Regulators are subject to political influences and they do not always have the incentive to regulate and supervise banks in the interest of taxpayers (Tett, 2012; Mishkin, 2000). To manage this potential conflict of interests, regulators' incentives should be aligned with those of taxpayers to ensure that the Basel III framework is implemented effectively, and regulators should be subject to accountability controls, for example external reviews by an independent panel (Fullenkamp and Sharma, 2010).

4 Considering the link between Basel III and financial stability

The potential effectiveness of the Basel III framework to mitigate future systemic risks needs to be considered in view of the findings in the literature on the link between banking regulation and banking system stability.

According to Allen and Herring (2001) there are sixteen types of banking regulation, the objective of which is to: prevent systemic risk; provide protection for investors; enhance efficiency; and improve social welfare. Financial stability is achieved through eight types of regulation: asset restrictions; capital adequacy requirements; deposit insurance; the fit and proper entry tests; interest rate ceilings on deposits; liquidity requirements; reserve requirements; and restrictions on services and product lines. The Basel III framework focuses on capital adequacy management (see Section 3 above).

A great number of empirical studies have considered the link between capital adequacy requirements and bank stability and the risk-taking behaviour of banks (Tachana Tchana, 2008a). These studies indicate that capital adequacy regulation (such as the Basel II framework) had not shown convincingly that it has a positive effect on risk-taking (Demirguc-Kunt, et al., 2006). Janson (2009) holds the view that the Basel II provisions contributed to the 2007 financial crisis. Capital restrictions are viewed as a tax on bank assets (Johnson and Murphy, 1987) and the desired level of capital (equilibrium capital level) dictates that banks will hold less capital if given the choice (Chang, 2006; Hellmann, et al., 2000). According to Hellmann, et al. (2000) capital adequacy requirements reduce the moral hazard risk by putting a bank's equity at risk, but such regulations have a negative effect on banks' franchise value (profitability), which encourages higher risk taking by banks to increase profit margins. The authors conclude that the implementation of an effective policy of capital adequacy requires simultaneous enforcement of deposit rate ceilings. Canova (1995) supports the view that high interest rates have a negative impact on risk-taking. The Basel III framework does not include proposals for deposit rate regulation. National regulators should therefore include this in their bank regulation policies.

There is a body of literature (see for example Wallison, 2007; Kroszner, 1998) that supports the view that financial crises are the result of bank regulation, which circumvents the benefits of market discipline. This debate is however academic as the 2007 financial crisis has lead to the inevitable introduction of more regulation. Regulators should therefore be conscious of the fact that more bank regulation does not necessarily lead to increased bank stability (Dincer and Neyapti, 2008). When considering the Basel III reforms, regulators should, however, concentrate on transparency provisions. Research shows (Demirguc-Kunt, et al., 2006) a significant positive relationship between bank soundness and compliance with the Basel Core Principles for Effective Banking Supervision principles related to information provision, which results in improved market discipline. It is therefore submitted that national regulators' prudent regulation and supervision practices should mainly focus on transparency provisions.

A further focus for national regulators when considering and implementing the Basel III framework, should be the prudent regulation and supervision of the shadow banking system, which is generally considered to be under regulated (Reinhart and Rogoff, 2009; James, 1987). It is clear that the shadow banking system is of systemic importance (European Commission, 2012; Gorton and Metric, 2010). The concern is that increased regulation brought about by the Basel III regulations, together with the increase in cost of funding, will result in more banking activities moving into the shadow banking system (Acharya, 2012; Chan, 2011; Varriale, 2011). The shadow banking system should therefore also be subjected to the Basel III capital framework (Johnson and Murphy, 1987).

5 Basel III and Value at Risk models

Basel II introduced greater flexibility on the part of banks when determining the risk associated with their assets for purposes of calculating risk-weighted assets (Moody's, 2004). For this, banks often rely on Value at Risk (VaR) estimates which are calculated according to banks' Bell Curve based risk models (Das, 2006). VaR models failed to forecast the collapse of the U.S housing market and the use of these models have been the subject of severe criticism (Taleb, 2008; Das, 2006). With the introduction of Basel III, there have been calls for a review of the VaR model (Financial Times, 2012) and it is submitted that the BCBS and its members should work towards the speedy introduction of more appropriate risk measurement tools.

6 Conclusion

Monetary policy and financial market regulation have material effects on intermediary services (credit channel) and a decrease in market liquidity has a negative impact on bank lending, which in turn negatively impacts GDP growth (Basel Committee on Banking Supervision, 2012; Bernanke, 1983). According to Fitch (Masters, 2012), the world's 29 largest universal banks will need to raise an additional $566 billion in new capital or shed about $5.5 trillion in assets by 2018 to meet the tougher Basel III capital requirements. The projected cost related to the implementation of the Basel III requirements in the European Union amounts to €50 billion (Masters, 2010). Finding the right balance, and weighing the cost and benefits of regulation and supervision are important because regulators are faced with the possibility that inadequate regulation may result in failures, whilst overregulation may result in financial inefficiencies and lower innovation (Walter, 2009; Lamfalussy, 1989). In view of the importance of the financial sector in macroeconomic terms, the Basel III regulations that are costly and ineffective need to be reconsidered (Janson, 2009; West, 1983). It is submitted that governments should focus less on inefficient regulation, and more on prudent supervision (West, 1983) and for this purpose regulators should be appropriately qualified, and should have sufficient resources to keep up with the fast pace of financial innovation (Fullenkamp and Sharma, 2012).

According to Gorton (2009), major banking reforms in the past were initially hailed, only to discover that they failed. Although the effectiveness of Basel III is yet to be tested, it is submitted that good regulation can only come from vigorous interactive conversations between regulators and the financial industry leading to proactive regulation and supervision, rather than the current cycle of hurried reactive (corrective) regulation (Fullenkamp and Sharma, 2012). Stakeholders should not view Basel III as a panacea for all financial crises, but should continue to seek ways to improve bank regulation and supervision.

References

1. Acharya, V.V. (2010), "The Dodd-Frank Act and Basel III. Intentions, unintended consequences, transition risks, and lessons for India", Working Paper, Stern School of Business, New York University, Retrieved from http://www.theigc.org/publications/rapid-response/dodd-frank-act-and-basel-iii-intentions-unintended-consequences.
2. Allen, F. and Herring, R. (2001), "Banking regulation versus securities market regulation", Working Papers, Financial Institutions Center at The Wharton School, University of Pennsilvania, pp. 1-58.
3. Bank for International Settlements (2012), Annual Report, Bank for International Settlements, Retrieved from http://www.bis.org/publ/arpdf/ar2012e.htm.
4. Bank for International Settlements (2008), "Global monitoring with the BIS international banking statistics", Working Paper, Bank for International Settlements, Retrieved from http://www.bis.org/publ/work244.htm.
5. Basel Committee on Banking Supervision (2012), "The policy implications of transmission channels between the financial system and the real economy", Working Paper, Bank for International Settlements, Retrieved from http://www.bis.org/publ/bcbs_wp20.pdf.
6. Basel Committee on Banking Supervision (2011), "Basel III: A global regulatory framework for more resilient banks and banking systems", Working Paper, Bank for International Settlements, Retrieved from http://www.bis.org/publ/bcbs189.htm.
7. Basel Committee on Banking Supervision (2010), "Basel III: A global regulatory framework for more resilient banks and banking systems", Working Paper, Bank for International Settlements, Revised version, June 2011, Retrieved from http://www.bis.org/publ/bcbs189.pdf.
8. Basel Committee on Banking Supervision (2009), "History of the Basel Committee and its Membership" Working Paper, Bank for International Settlements, Retrieved from http://www.bis.org/bcbs/history.pdf.
9. Bernanke, B.S. (1983), "Nonmonetary effects of the financial crisis in the propagation of the Great Depression", American Economic Review, Vol. 73 No. 3, pp. 257-276.

10. Bootle, R. (2009), The Trouble with Markets. Saving Capitalism from Itself, Nicholas Brealey Publishing, London, UK.
11. Borio, C.E.V. and Filosa, R. (1994), "The Changing Borders of Banking: Trends and Implications", Working Paper, Bank for International Settlements, Basel, Retrieved from http://www.bis.org/publ/econ43.htm.
12. Canova, T.A. (1995), "The transformation of U.S. banking and finance: From regulated competition to free-market receivership", The Brooklyn Law Review, Vol. 60 No. 4, pp. 1295-1354.
13. Chan, C. (2011), "The perils of shadow banking's expansion", Asiamoney, Vol. 22 No. 1, pp. 24-27.
14. Chang, Y.T. (2006), "Role of non-performing loans (NPLs) and capital adequacy in banking structure and competition", Working Paper, University of Bath, Retrieved from http://ssrn.com/abstract=938475.
15. Cohen, N (2012, June 25), "Global economy is stuck in a vicious cycle, warns BIS", Financial Times, Retrieved from http://www.ft.com/intl/cms/s/0/4e3340a4-bc86-11e1-a470-00144feabdc0.html#axzz1zestuZrr.
16. Das, S. (2006), Traders, Guns & Money. Knowns and Unknowns in the Dazzling World of Derivatives, Prentice Hall, Harlow, UK.
17. Demirguc-Kunt, A., Detragiache, E. and Tressel, T. (2006), "Banking on the principles: Compliance with Basel Core Principles and bank soundness", Working Paper, World Bank, International Monetary Fund, Retrieved from http://www.imf.org/external/pubs/ft/wp/2006/wp06242.pdf.
18. Dincer, N. and Neyapti, B. (2008), "What Determines the 'Legal' Quality of Bank Regulation and Supervision", Contemporary Economic Policy, Vol. 26 No. 4, pp. 607-622.
19. El-Erian, M. (2008), When Markets Collide. Investment Strategies for the Age of Global Economic Change. McGraw-Hill, New York, NY.
20. European Commission (2012), Green Paper: Shadow Banking, Retrieved from http://ec.europa.eu/internal_market/bank/docs/shadow/green-paper_en.pdf.
21. Filipiak, E. (2009), "The creation of a regulatory framework: The enactment of Glass-Steagall", Working Paper, Cornell University, Retrieved from http://ssrn.com/abstract=1450028.
22. Financial Times (2012, April 16), "Moddeling: normal distribution is not always the norm", Financial Times, Retrieved from http://www.ft.com/cms/s/0/67d05d30-7e88-11e1-b7e7-00144feab49a.html#axzz1zk2Lm3Ks.
23. Fullenkamp, C. and Sharma, S. (2012), "Good financial regulation: Changing the process is crucial", Working Paper, Duke University, USA, the IMF-Singapore Regional Training Institute, Singapore, Retrieved from http://www.icffr.org/Prize2011.aspx.
24. Gorton, G. and Metric, A. (2010), "Regulating the shadow banking system", Brookings Papers on Economic Activity, Vol. 2, pp. 261-312.
25. Gorton, G. (2009), "Slapped in the face by the invisible hand: Banking and the panic of 2007", Working Paper. Yale School of Management, Retrieved from http://ssrn.com/abstract=1401882.
26. Greenspan, A. (2008), The Age of Turbulence. Penguin Group, London, UK.
27. Groendahl, B. (2012, June 25), "Banks need 'push' to avoid prolonging crisis, BIS says", Bloomberg News, Retrieved from http://www.bloomberg.com/news/2012-06-24/banks-need-push-to-avoid-prolonging-crisis-bis-says.html.
28. Hawley, J. (2012), "Dodd-Frank, financial institution rescues and financial crisis: The problem of Too Interconnected to Fail", Revue d'Economie Financiere, Vol. 105 No. 3, pp. 251-263.
29. Hellmann, T.F., Murdock, K.C. and Stiglitz, J.E. (2000), "Liberalization, moral hazard in banking, and prudential regulation: Are capital requirements enough?", American Economic Review, Vol. 90 No. 1, pp. 147-165.
30. James, C. (1987), "Off-balance sheet banking", Economic Review – Federal Reserve Bank of San Francisco, Vol. 4, pp. 21-36.
31. Janson, N. (2009), "The ongoing banking crisis: another proof of the Basel II Accord inefficiency", Gestion, Vol. 26 No. 6, pp. 35-48.
32. Johnson, S. and Murphy, A.A. (1987), "Going off the balance sheet", Economic Review – Federal Reserve Bank of Atlanta, Vol. 72 No. 5, pp. 23-35.
33. Keohane, D. (2012, May 17), "Fitch attempts to tally the cost of Basel III", Financial Times, Retrieved from http://ftalphaville.ft.com/blog/2012/05/17/1003371/fitch-attempts-to-tally-the-cost-of-basel-iii/.
34. Kerr, W.R. and Nanda, R. (2008), "Democratizing entry: Banking deregulations, financing constraints, and entrepreneurship", Working Paper, Harvard Business School, Retrieved from http://www.hbs.edu/research/pdf/07-033.pdf.
35. KPMG (2011), "Basel III: Issues and implications", Working Paper, Retrieved from http://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/Documents/basell-III-issues-implications.pdf.
36. Krosner, R.S. (1998), "Rethinking bank regulation: A review of the historical evidence", Journal of Applied Corporate Finance, Vol. 11 No. 2, pp. 48-58.
37. Lamfalussy, A. (1989), "Globalization of financial markets: International supervisory and regulatory issues", Economic Review – Federal Reserve of Kansas, Vol. 74 No. 1, pp. 3-8.
38. Lange, H. (2004), "Mortgage backed securitization: When does it work?", Journal of Commercial Banking and Finance, Vol. 3 No. 1, pp. 39-55.
39. Masters, B. (2012, June 24), "EU financial reforms could cost €50bn", Financial Times, Retrieved from http://www.ft.com/cms/s/0/5bc26926-bded-11e1-9abf-00144feabdc0.html#axzz1zfNxlffX.
40. Mishkin, F.S. (2000), "Prudential supervision: Why is it important and what are the issues?", Working Paper, National Bureau of Economic Research, Retrieved from www.nber.org/chapters/c10756.pdf.
41. Moody's (2004), "The benefits of Basel II and the path to improved financial performance", Working Paper, Moody's, Retrieved from http://asaha.com/ebook/MNDc1ODI-/The-Benefits-of-Basel-II-and-the-Path-to-Improved-Financial.pdf.
42. Neal, L. and White, E.N. (2012), "The Glass-Steagall Act in historical perspective", Quarterly Review of Economics & Finance, Vol. 52 No. 2, pp. 104-113.
43. Reinhart, C.M. and Rogoff, K.S. (2009), This Time is Different. Eight Centuries of Financial Folly. Princeton University Press, Princeton, New Jersey.

44. Schwerter, S. (2011), "Basel III's ability to mitigate systemic risk", Journal of Financial Regulation & Compliance, Vol. 19 No. 4, pp. 337-354.
45. Sorkin, A.S. (2009), Too Big to Fail. The Inside Story of How Wall Street and Washington Fought to Save the Financial System – and Themselves, Penguin Group, New York, NY.
46. Stoltz, S. (2002), "Banking supervision in integrated financial markets: Implications for the EU", Working Paper, CESifo. Retrieved from http://ssrn.com/abstract_id=360861.
47. Taleb, N. N. (2010), The Black Swan. The Impact of the Highly Improbable, Penguin Group, New York, NY.
48. Tchana Tchana, F. (2008a), "Regulation and banking stability: A survey of empirical studies" Working Paper, Universite de Montreal, University of Cape Town, Retrieved from http://mpra.ub.uni-muenchen.de/9298.
49. Tchana Tchana, F. (2008b), "The empirics of banking regulation", Working Paper, University of Cape Town, Retrieved from http://ssrn.com/abstract=1150739.
50. Tett, G. (2012, May 3), "Beware pitfalls of rule-makers pursuing their own agendas", Financial Times, Retrieved from http://www.ft.com/intl/cms/s/0/e9593a06-9522-11e1-ad38-00144feab49a.html#axzz1zk2Lm3Ks.
51. Tett, G. (2009), Fool's Gold. How Unrestrained Greed Corrupted a Dream, Shattered Global Markets and Unleashed a Catastrophe, Little Brown, London, UK.
52. Usui, T. (2003), "Corporate governance of banking organizations in the United States and in Japan", Working Paper, Duke University School of Law, Retrieved from http://ssrn.com/abstract=576403.
53. Varriale, G. (2011), "The risks of shadow banking's growth", International Financial Review, Vol. 30 No. 9, p. 28.
54. Wallison, P.J. (2007), "Banking regulation's illusive quest", Banking & Finance, Vol. 30 No. 1, pp. 18-24.
55. Walter, I. (2009), "The new case for functional separation in wholesale financial services", Working Paper, Stern School of Business, New York University, Retrieved from http://ssrn.com/abstract=1442148.
56. Weissman, R., and Donahue, J. (2009), "Wall Street's best investment: Ten deregulatory steps to financial meltdown", Multinational Monitor, Vol. 30 No. 1, pp. 1-12.
57. West, R.C. (1983), "The evolution and devolution of bank regulation in the United States", Journal of Economic Issues, Vol. 17, pp. 361-367.
58. Wolf, M. (2009), Fixing Global Finance. How to Curb Financial Crises in the 21st Century. Yale University Press, London, UK.