# Monetary Policy, Risk-Based Supervision and Financial Sector Developments: International Experience

*Ayodele Odusola, PhD**

## I. Introduction

A well-functioning financial sector is a major ingredient for economic growth and development in many respects. An efficient financial system improves savings mobilization and financial intermediation, allocates resources for productive investments and allows risk spreading and risk pooling. An efficient banking supervision is essential to a virile and stable financial system and also to foster the linkage between the financial sector and the aggregate economy as well as to reduce the likelihood and magnitude of a financial crisis. Recent development across the globe has shown that dynamic diagnostic instruments are required for identifying and managing risks, vulnerabilities and development priorities in the financial sector. The need to address the unfolding complexity of supervising the banking system in the context of a globalized world underscores the introduction of the joint IMF-World Bank Financial Sector Assessment Program (FSAP) in May 1999.

Recent experiences in many countries and the current global financial crisis suggest that traditional banking supervision tools are not effective in tackling sectoral imbalances, especially an overheated property market that could eventually lead to broader financial crisis and macroeconomic instability. Given the level of sophistication of the financial system, it has become quite easy to

**Dr. A. Odusola is Policy Adviser on the National Economy at the United Nations Development Programme (UNDP). The views expressed in the paper are entirely those of the author and should not in any way be ascribed to the CBN and UNDP or their respective Management.*

circumvent rule, compliance-based supervision. To capture most of the emerging risks associated with financial growth and development, it has become common place to replace rule-based supervision with a risk-based approach.

The need to ensure risk management dynamically evolved in line with developments in the financial sector and the entire globe. Thus, from 2004, national economies were made to buy into the development of Basel II framework. This revised framework on "International Convergence of Capital Measurement and Capital Standards", aims at building a solid infrastructure and enhancing risk management, capital adequacy, market discipline, and financial stability. It is essentially to ensure safety and soundness of the banking system and encourage on-going improvements in risk assessment and management. The main feature of this is that it is applied to suit the national circumstances and it is not mandatory for it to be applied to all banks concurrently. Application is based on level of exposure to risks.

## II.0 Framework for risk-based banking supervision

Within the context of globalization, boundary has become more important in financial risk factors. Most domestic main financial system risk factors are linked to global and domestic developments. The role of contagion has become very significant in recent developments. A slowdown of the global economy in any major trading partner tends to have some adverse effect on domestic economic activity and, in turn, on the demand for credit and the quality of loan portfolios (IMF, 2008).

The joint assessments of the IMF and the World Bank (IMF 2003) found that loan evaluation and provisioning practices tend to be weaker in practice than they are on paper, and exchange rate, interest rate and other market and country risks tend to be underestimated. The fact that rule-based supervision is easily circumvented by bankers makes new approaches inevitable. The report also made it clear that effective supervision of large and complex financial institutions, particularly those requiring consolidated supervision and consolidation of accounts, has become very challenging under rule-based supervision.

Financial risk is the possibility that the outcome of an action or event could bring up adverse impacts. Risk by default has two components: uncertainty and exposure. Banking sector risks can be categorized into four: credit risk (resulting from a counterpart default), market risk (resulting from volatility in income or market value due to fluctuations in such underlying market factors as currency, interest rates, credit spreads, etc.), liquidity risk (not being able to meet commitment or inability to liquidate assets at reasonable process when required), and operational risk (resulting from inadequacies in the conception of implementation of procedures) (Mirza, 2008).

A risk-based supervision allows scarce supervisory resources to be targeted at funds which are viewed to be at most risk and allows supervisory authorities to take a more pro-active approach, attempting to avoid potential problems before they occur, as opposed to a reactive compliance-based approach (IOPS, 2007). Risk-based supervision is a preventive tool often used to identify gaps in risk management policies and practices *before* such weaknesses adversely affect earnings and capital of the banking system. The risk-based supervision entails a shift away from a rigid, rules-based approach to regulation and supervision towards broad, principle-based prudential standards. This is otherwise called "incentive compatible" prudential standards. This approach encourages banks to develop and continuously update their internal risk management systems to ensure that it is commensurate with the scope and complexity of its operations (Watanagase, 2004; MSC, 2005).

Another attribute of this approach is its focus on steering a balanced course of action for each banking institutions and the entire system. It emphasizes a forward-looking, *longer-term* analytical framework as opposed to relying solely on a point-in-time analysis and evaluation of the banking system.

A well-managed risk-based supervision helps banking supervisors to properly identify risks during economic expansion when bankers and monetary authorities suffer from 'herd-like' euphoria that could be very costly to the entire economy. The approach which is premised on sound judgment and critical analysis apart from enhancing supervisory oversight, also encourages banks to enhance their own risk management capabilities. Because this approach is driven by sound judgment and critical analysis, a risk-based supervision framework requires bank supervisors to be skeptical of conventional wisdom in good and *bad times*- and never be excessively optimistic or pessimistic during economic boom or burst. The Bank of Thailand is one of the monetary authorities that have structured and risk-oriented approach to on and off-site banking supervision process.

Financial pro-cyclicality has played a major role in the emergence of financial risks in many emerging markets in recent times financial market participants' have strong appetite for risk shifts with changes with the economic cycle. Financial pro-cyclicality arises whenever normal fluctuations in the business cycle are *exacerbated* by market agents' tendency to behave in a 'herd-like' manner as business cycles change. There is also a propensity for regulatory policies and supervisory practices to reinforce and magnify this "herd-like" behaviour of financial intermediaries (Watanagase, 2004).

Evidence across the globe has shown that during economic booms, bankers and other financial operators are prone to excessive optimism and may be inclined to justify the feasibility of increasingly higher-risk or be exceedingly involved in adverse selection. This could partly be as a result of inflated collaterals, seemingly unlimited borrowers' potentiality and increasingly intense competition among financial intermediaries. With financial pro-cyclicality, even the most prudent lender may be tempted to relax its loan underwriting criteria and reduce its lending rates charged to high-risk borrowers or risk losing market share to its competitors (Watanagase, 2004). Since the banks' financial conditions appear *seemingly* strong (robust earnings and low levels of problem loans), bank supervisors may fall into the financial illusion associated with this euphoria and thereby may see no problem in this risky behaviour. This euphoria has the tendency to contribute to rapid loan growth with less capital, which sooner than later, culminates into poor loan quality and pyramiding of doubtful loan provision, while inadequate reserve levels becomes apparent. At this stage, bankers' optimism turns to pessimism; this results into tightening of lending standards, which to a large extent, eclipse creditworthy borrowers thereby affecting genuine investments. Monetary authorities are also caught up in this 'herd-like' tendency by demanding higher reserves and possibly raise capital base due to known asset quality deterioration. The decline in credit growth to genuine investors tends to exacerbate the economic downturn. An important implication of this is that bankers and financial regulators tend to underestimate risk during economic expansion and overly pessimistic during economic recessions.

## III.0 International Experiences

The emerging global financial infrastructure is changing the role of central banking. In the context of globalization, the expansion of the financial markets and the diversification of the financial instruments; measuring, identifying and controlling the risk exposure in banks have become essential. Central banks are no longer mere static financial system supervisors but also undertake a dynamic review of the way banks are monitoring, identifying and quantifying financial risks. In fact, since IMF signed agreement with most central banks not to control capital flows, the way the banking system measure the vulnerability of capital risk has been evolving over time. Now, most central banks support and help banks in building risk management infrastructure to measure, monitor and manage their risk exposures.

The new economic architecture is supporting a risk-based supervision. This realization emerged from lessons from the financial crisis of the 1990s and 2000s. The financial crisis of different shapes experienced over the past one and a half decades has shaped the face of risk management globally. For instance, the market and credit crises (the 1994 bond crisis and the 1997 Asian crisis) and the operational risk crises (the Barings PLC in 1995 and Enron in 2001) have shown that earnings are the first source to confront losses. This, therefore, makes banks to focus attention on measuring the vulnerability of their earnings to stress situations. Risk management and stress testing are no more the primary responsibility of financial regulators but also that of banks. For instance, in banks such as the JP Morgan Chase, economic value stress testing and Value at Risk (VaR) are very important tools in risk management practices. Economic value stress testing is not only done for trading and non-trading activities using the same scenarios but also tests its portfolio once a month to improve its understanding of its risk profile and to determine how the economic value of the balance sheet could be affected using multiple scenarios.

Many countries have achieved a good degree of compliance in banking supervision and regulation and better ability of supervisory authorities to manage the proliferation of financial services, undertake risk-based supervision, take prompt corrective actions, deal with consolidated supervision, and cooperate with other domestic and foreign supervisory agencies.

### III.1 Europe

The growth of financial conglomerates, i.e., groups that simultaneously engage in banking, insurance and securities businesses, is posing its new challenges. The major pre-occupation in Europe is to determine how adequate the tools are to manage the risks they are exposed. This is based on the understanding that failure of one of these financial conglomerates could pose serious threat to the financial system. Developing an enterprise-wide risk management or aggregation technique is a core priority for this group. They are yet to devise a technique that handles different types of risk such as credit, market, operational and insurance underwriting risks to a common standard (BIS, 2001).

The French experience shows that credit risk, represents 85 per cent of banks' risks, followed by operational risk (10 per cent) and market risk (5 per cent) (Central Bank of Egypt, 2007). Banque de France's experience shows that three *approaches are adopted in carrying out stress tests on credit risks. The first approach,* scenario analysis, measures the impact of macroeconomic stress scenarios on different outcomes of bank's loan portfolios. *The second approach,* sensitivity analysis, makes an ad-hoc shock on the corporate credit portfolio of major French banks while the third undertakes shocks on the equity liability of a single bank. Two type of models are used in doing this: *the Margin Model* measures the impact of macroeconomic shocks on banks' profitability; while *the Transition Matrices Model* measures the impact of macroeconomic and financial shocks on credit risk. The objective of macro stress testing is to detect the link between macroeconomic fluctuations and banking sector situation, measured by a number of variables (credit quality, profitability and solvency) using a top down stress testing.

The emerging issue is that banks now subject themselves to simple sensitivity test and multiple scenario analysis. While *the simple sensitivity test* observes the change in the portfolio of a bank due to the change in one risk factor, *the scenario analysis* observes the change in portfolio due to the change in multiple risk factors simultaneously (e.g., equity prices, foreign exchange rates, and interest rates). The latter approach is more demanding in terms of application because it involves building sophisticated econometric models and simulation scenarios that reflects the complexity of the market situations. This is the new face of risk-based supervision in the new financial architecture. As a matter of fact, each bank will have to do a stress testing exercise proportionate to the size of the bank and the complexity of the institution, which explains why stress tests differ from one bank to another; and it is beyond a rule-based imposed stress testing.

### III.2 Malaysia

The Malaysian Securities Commission adopted the Compliance and Risk-based Supervision Framework and self assessment by intermediaries in 2004, starting with the fund management industry. This framework provides a more structured and comprehensive method of identifying and measuring the qualitative and quantitative risk exposures of its market institutions and intermediaries involved in risk identification, measurement, mitigation and assessment. This approach led to a more proactive and pre-emptive approach to risk management which has also necessitated the establishment of management action plan (MSC, 2005). In 2005, the Commission used the framework to prepare the scorecard of fund management industry which led to feedbacks from fund management participants to develop action plans to mitigate high risks areas as well as cultivate a compliance and risk management culture. This framework was later applied on unit trust management, stock-broking firms and futures brokerage companies between 2005 and 2006. The strategic shift from rule-based regulation to risk-based supervision was to enhance competitiveness, quality of markets and intermediation, and international compatibility.

### III.3 Nepal

Experience from this country revealed that excessive exposure of banks and financial institutions to the share market led to a bubble. When the bubble busts, the rise in non-performing loans (NPLs) led to a stress in the banking sector (Nepal Rastra Bank, 2008). Besides, as a result of boom in real estate experienced in the country, the banks and financial institutions provided loans to real estate based on the market value of land and houses as collateral, a bubble in the real estate market directly affected the banking sector. In addressing the emerging challenges, the BASEL II was introduced for commercial banks. The existing provision of capital adequacy ratio for development banks, finance companies and microfinance development banks was initiated. The apex bank initiated a proactive evaluation of banks based on the CAMELS rating indicators through compulsory annual on-site supervision at the corporate level, compulsory on-site supervision of the banks and financial institutions with poor financial health. The implementation of Early Warning Signal (EWS) to banks and financial institutions based on CAMELS rating, off-site supervision report on banks and the auditing of big branches of large banks by external auditors were started.

### III.4 Mexico

A major strength of the Mexican financial system was the increasing transparency and market discipline and the strengthening of the institutional framework for financial oversight. A critical aspect of this is the improvement in accounting and disclosure standards in the financial system. In addition to the limitation of the previously unlimited guarantee on bank liabilities, the regulatory and supervisory framework has registered remarkable improvements in quality and effectiveness through increased operational transparency, improved market discipline and strengthened institutional framework for financial oversight. In spite of this, the financial system is still facing the challenge of distribution of regulatory functions, coordination and regulatory and supervisory gaps. The financial system is overseen by multiple regulators which makes the country to experience a fragmentation of supervisory powers[1] which weakened accountability and the enforcement of rules and regulations (IMF, 2007). The use of forbearance in addressing the 1994-95 crisis undermined the financial system credibility.

Substantial reforms have taken place since 2001. In 2001, a legislation was passed mandating sound banking practices within the banking community while in August 2004 banks were mandated to ensure that they apply internal credit rating methodologies for all types of loans (consumer, mortgage, and commercial) vis-a-vis applying specific credit rating methodologies for loans to sub-national governments (states and municipalities). Specifically, credit ratings for municipalities were required for the granting of credit with substantial loan-loss reserves required for unrated municipalities. The National Banking and Securities Commission (CNBV) was obliged to have accurate classifications of loans, provision for adequate loan loss reserves, provision of additional requirements for foreclosed assets and establishment of external auditors' independence. In December 2005, it was mandatory for banks to have at least a risk manager to control institutional risks coupled with Basel II's capital standards while at the same time using credit risk mitigation techniques on loans, guarantees and collateral. As at March 2006, Mexico had adhered to the 25 Basle core principles of banking supervision.

[1] *The Secretariat of Finance and Public Credit (SHCP) is saddled with the responsibility of setting regulatory policy for granting and removing banks' operational license and setting capital requirements. The National Banking and Securities Commission (CNBV) supervises and regulates banks, other credit institutions and securities markets. The Bank of Mexico (BOM) regulates money, foreign exchange, and derivatives markets as well payment systems and financial operations. The Pension Fund Commission (CONSAR) supervises privately managed pension funds (AFOREs) while the National Insurance and Sureties Commission (CNSF) oversees insurance companies. The Institute for the Protection of Banking Savings (IPAB) handles bank resolution, serves as the deposit insurance agency and disposes off the distressed banks' assets (IMF, 2007:5).*

### III.5 Australia

The Australian banking system constitutes about 50 per cent of the total financial system assets, with four banks controlling about two-thirds of authorized deposit-taking institutions' asset. However, the system was adjudged sound by the IMF financial assessment in 2006. The banking system is characterized by high earnings, strong asset growth and low level of problem assets and showed high resilience to adverse shocks. Nevertheless, the system faces a number of vulnerabilities such as macroeconomic shocks, significant exposure to a highly leveraged household sector, high dependence on wholesale funding, increased competitive pressure and overall lack of diversification (IMF, 2006). The emerging competition in the banking system shifted lending from residential real estate to small and medium scale enterprises and wealth management and expansion overseas. This affected the risk profile of banks by not only increasing the aggregate risks but also by shifting risks from those that are real estate based into collateralized and foreign risk exposures. Due to declining retail deposit among the largest banks, risks inherent in large organizations became prominent.

The Australian banks were able to manage liquidity risks because of many factors, namely: a stable international funding environment; an appropriately flexible exchange rate policy to absorb stress; banks' efforts to develop alternative sources of funding and to diversify their funding sources; Reserve Bank of Australia's recent decision to widen its definition of acceptable collateral, which provided more flexibility to banks in managing their liquidity risks; and adoption of prudential standard on liquidity management (IMF, 2007). The monetary authorities always embark on proactive stress tests on the various categories of banks in the system. For instance, the five largest domestic banks ran a *macroeconomic stress scenario* over a three-year time period while the same banks ran a series of *single factor stress tests* on interest rates and *mortgage portfolio stress tests* were constantly undertaken on banks that were considered to be heavily exposed to the mortgage market. In addition to implementing trans-border banking supervision (especially with New Zealand) which reduced possibility of contagion, since 1997, Australia adopted functional approach to regulation by consolidating prudential regulation into one functional agency, market conduct regulation into another and a proactive Council of Financial Regulators. The Council comprised the Reserve Bank of Australia (RBA) (responsible for payment system and financial stability), Australian Prudential Regulation Agency (APRA) (responsible for the prudential supervision of banks, insurers and superannuation funds), the Treasury, Australian Investment and Securities Commission (AISC) and the Australian Transaction Reports and Analysis Centre (AUSTRAC) (responsible for financial intelligence and ensuring compliance with money laundering legislation). The forum, which allows for regulatory coordination and consultation with key actors in the industry, addresses trends and policy issues in domestic and international financial markets as well as monitor and evaluate the markets. Australia is at the forefront of adhering to international best practices; APRA has adopted the principle of establishing institution-specific capital adequacy of Basel II and has made adequate preparation for the implementation of other aspects of Basel II principles. Listed companies disclosure and corporate governance practices are integral to the supervisory model in the Australian financial system.

### III.6 India

Part of the recent financial sector reform is aimed at making the financial system globally competitive and resilient to shocks. It is essentially aimed at mitigating risks to the financial system. The key elements of the prudential measures put in place in recent times include: phased implementation of international best practices, Credit Asset Ratio (CRAR) / Provisioning / Non-performing Loans (NPL), Norms / Exposure Limits), strengthening of risk management in the financial system, roadmap for Basel II, guidelines for ownership and governance, Know-Your-Customer (KYC) and AML Guidelines, and securitisation and debt restructuring mechanism norms (Mohan, 2006). In addition to the foregoing, supervisory measures also include setting up an of autonomous body for supervision, restructuring of on-site supervision to make it more dynamic and forward-looking, introduction of off-site surveillance to complement the on-site supervision, recasting norms on ownership and governance (with particular focus on external auditors, internal control, strengthening corporate governance and due diligence on important shareholders) and regulatory cooperation for monitoring financial conglomerates.

The reform has brought about substantial improvement in the financial system, notably, increased credit-asset ratio, appreciable improvement in CRAR of banks - CRAR much above the stipulated level (9 per cent), banks investment in gilts rose rapidly but has started to decline (albeit still above the minimum requirement). The emergence of domestic and external financial conglomerates is creating concern of possible loss of regulatory effectiveness and oversight. In India, the recent high credit growth associated with growth of asset prices is generating serious concern which has raised the need to review its prudential measures to address sectoral concerns.

## IV.0 Lessons from International Experiences

Evidences from de Gulde, et al (2004), IMF and the World Bank (2005), and IMF (2003, 2006 and 2007) reveal some key lessons and issues on risk based management. Some of these lessons include:

- A major lesson from emerging economies that have recovered from financial crisis of the 1990s and 2000s, have achieved a good degree of compliance in banking supervision and regulation and better ability of supervisory authorities to manage the proliferation of financial services, undertook risk-based supervision and prompt corrective actions, dealt with consolidated supervision and cooperated with other domestic and foreign supervisory agencies.

- Concentrated lending has become an issue of concern in recent times. The recent global financial crisis emanated from over-concentrated sectoral lending, especially mortgage lending in the USA.
- Rapid credit growth in countries with weak institutional and regulatory environment (such as weaknesses in supervision, banks' risk management systems or weak creditor and property rights) raises the issue of adequacy of credit risk management systems. This poses the risks of deterioration in credit quality and asset-price bubbles, which if unchecked could trigger a systemic vulnerability and crisis as currently being experienced across many countries including the USA.
- Economic vale stress testing has become integrated financial management skills of banks. It is extremely important that stress testing is now incorporated into day-to-day management of the bank and that it is considered as a part of the risk management department as opposed to the sole responsibility of central banks in the immediate past.
- Although endogenous dollarization lowers volatility in interest rates, it however, presents supervision challenges by limiting the scope for monetary management and lender-of-last resort, constraining the financial system's capacity to withstand systemic shocks.
- Supervisory capacity of monetary authorities is challenged when corporate governance is weak. Within the framework of Basel II, sound corporate governance is all the more relevant in the context of increased reliance on risk-based supervision and market discipline.
- Information infrastructure, especially internal ratings or ratings of external credit assessment institutions, is required for meeting the sound international practice on banking supervision as reflected in Basel II framework.

- Financial system with dominance of financial conglomerates and existence of many subsidiaries of foreign banks with weak accounting and disclosure procedure often pose serious challenge to bank supervision. For supervision to be effective, domestic supervision needs to be closely coordinated with foreign supervision.
- The extent to which the entire economy is aligned with the development of securities markets, insurance and contractual savings matters in risk-based supervision. For instance, the availability of financial products and services can be complicated by a lack of instruments, inadequate information and poorly functioning markets, such as interbank, bond, equity and derivatives markets. Risks become more attenuated in the presence of deficient economic infrastructure as often reflected in weak legal, judicial and education systems coupled with absence of economies of scale and scope usually associated with small financial systems.
- The effectiveness of risk-based supervision is undermined in countries with dysfunctional implementation of legal and judicial system as it relates to loan recovery and property rights. These institutional weaknesses impair creditor rights, development of a credit culture and credit contract enforcement.
- Many economies have initiated pension reforms which have opened up some form of contractual savings institutions. A potential risk is for banks to use long-term finance to overheat short-term market operations thereby creating unnecessary bubbles in the market that could lead to moral hazard and related financial recklessness.
- Within the context of globalization, many countries (e.g. Australia) have simultaneously experienced strong credit growth and an erosion of their traditional retail deposit base. This was possible because of increasing significance of superannuation funds such as pension funds and off-shore funding. This funding structure is often associated with foreign exchange,

interest rate and liquidity risk. While capacities of banks to hedge the foreign exchange and interest rate risks may be high, there are nevertheless, operational and counterparty risks associated with hedging activities which need to be monitored. A corollary to this is the liquidity and roll-over risk which many banks may not have capacity to manage effectively.

- There is need for improved arrangements to manage the failure of financial institutions and contingency planning for crisis management. This is vital for confidence building and development of financial credibility.

## V.0 Implications for Monetary Policy Management in Nigeria

Traditionally, measuring financial risks are passive activities while managing them is a proactive process. However, recent developments have shown that both the measurement and management require some level of pro-activism coupled with adroit skills and competencies. The post consolidation of banks since 2005 and the lull in the capital market since the second quarter of 2008 tend to suggest a new risk exposure in the Nigerian financial market. Excessive exposure of banks and financial institutions to the share market could lead to bubbles as was experienced between 2006 and 2007. However, when the bubble bust, especially in 2008, the shareholders funds of banks became terribly affected. This could lead to pyramiding of non-performing loans (NPLs), which the Central Bank is yet to examine to fully determine the implications of the development in the capital market on the financial system. This, as a matter of fact, deserves some serious attention from the monetary authorities.

An emerging issue is high concentration of lending among very few corporate entities and exposure to offshore borrowing through lending facilities from global financial institutions. Although, most banks see this as a form of expansion, to the monetary authorities this should be viewed as a possible source of risk. This was a major source of risk that threw the Australian financial system into crisis in the early 1990s which led to loss of about 36 per cent of shareholders fund. The need to constantly examine this form of exposure in the context of the Nigerian banking system is, therefore, imperative.

A major ingredient of monetary policy management in the context of financial development is the development of credit bureau which is currently absent in the country. To reduce the risks associated with financial sector development, there is need to develop information infrastructure that could facilitate lowering of lending costs and to broaden the pool of creditworthy borrowers. This will go a long way to addressing the weak collateral systems by facilitating the development of 'reputational' collateral. It is important to promote the establishment of credit information systems and the institutions that can enhance access to financial services.

Recent development in the global financial system has shown that there is need to enhance risk management across the financial sector's entities. It is also important to develop robust mechanisms for evaluating banks' portfolios under different potential stress scenarios. Stress tests need to be designed for each identified risks across the banking, insurance and capital market sub-sector. The monetary authorities should constantly subject each entity to stress tests to avoid debilitating financial runs that could lead to systemic crisis.

The growth of Nigerian banks to many West African countries, though presently does not pose any serious challenge given the relatively low share in Nigeria's banking assets, however contagion effects from West African banks to Nigerian individual banks could be more severe than often indicated by the relative size of their balance sheets. This is more sanguine when the regulatory and supervisory frameworks in those countries hosting Nigerian subsidiary banks are weaker than

Nigeria's. Existence of any serious financial difficulties in any country with large concentration of Nigerian banks (or the subsidiary of Nigerian banks), the effects on Nigerian individual banks, especially on the funding side, could be substantial. Even when such difficulties were averted, it could have some reputational effects on the Nigerian financial system in those countries, especially when only the Nigerian subsidiaries are affected. Risk of contagion is, therefore, an important issue under the present financial system. It is also possible to have idiosyncratic risks associated with economic downturn in countries hosting the subsidiaries as well as currency swap risks. Given the prominence of contagion risks, it is important to think of trans-border banking supervision to avert any serious contagion in the future.

A major lesson that Nigeria should learn from this development is how to manage risks during pro-cyclicality. Managing pro-cyclicality could be challenging in developing economies due to the dominance of the banking sector, absence of alternative viable financial intermediaries, inadequate monetary policy instruments to manage pro-cyclical imbalances, and emerging nature of the risk management practices of financial intermediaries. Addressing these challenges require monetary authorities to do away with 'wait and see' approach by becoming more proactive in combating pro-cyclicality concerns. Best practice from emerging economies tends to promote a combination of a risk-based supervisory framework with a flexible use of "blunt" prudential requirements.

For flexible prudential requirements to work effectively especially to counter pro-cyclical tendencies, it requires effectiveness in risk-based supervision. The need to adopt flexible and proactive prudential measures is underpinned by the rate at which banks get around any rule-based prudential requirements, irrespective of whether they are used for soundness purpose or to counter pro-cyclicality concerns. The experience of Asian countries as suggested by (Watanagase, 2004) becomes relevant under this situation:

- *Vary capital buffer with changes in economic cycle: During economic expansion,* banks are required to hold capital in excess of regulatory minimum with a view to drawing down during economic downturn. The determination of how much "buffer" capital is required will be based on experience and sound judgment. This will require two explicitly sets of ratios: a minimum capital ratio (during a normal or downturn situation); and a minimum *targeted* capital ratio that is set at a pre-defined level above the regulatory minimum (for boom period).
- *Increase the regulatory credit risk-weights assigned to certain high-risk assets/sectors: When there is* a rapid accumulation of credit concentrations in certain high risk sectors during boom times, based on experience, it may be necessary to increase the Basel I risk-weights from 100 per cent to a higher risk-weight function (i.e. 100 + X per cent; the value of X would depend on the severity of the risk of the affected sector as judged by the monetary authorities).
- *Adopt forward-looking provisioning requirements: This is a major attribute of incentive compatible prudential standards. The main yardstick for determining the p*rovisioning requirements is the debtors' ability to repay over an appropriate time horizon. Other factors that should be taken into consideration include the extent of loan concentrations; the quality of loan underwriting standards; and the quality, type, and marketability of collateral.
- *Prescribe loan-to-value (LTV) ratios for the property sector: With this approach, the supervisory authorities prepare* prescribed LTV guidelines for the property sector, especially during rapid increases in property values.

Risk based supervision requires a substantial resource commitment on the part of both banks and supervisors. Essentially, it requires requisite knowledge, skills, and abilities which can only be achieved with time and not in a jiffy as most banking regulatory institutions often expect. This incentive compatible approach requires adroit skills that can be acquired through training, benchmarking and rigorous and continuous exposure to best practices across countries with similar banking and economic structures.

A major requirement is a deep understanding of broader macroeconomic data and trends, a good insight on the health of the banking sector and a practical hands-on knowledge of individual banks health.

## VI.0 Conclusion

Recent developments in the Nigerian financial system such as concentrated lending to few enterprises bubble and burst in the capital market and the expansion to West Africa and other parts of the globe make the system a good candidate for risk-based supervision. This is also influenced by the need to expose banks to pro-cyclicality management. Similarly, the emerging financial conglomerates have changed the face of prudential regulations globally. Financial products have gone beyond the traditional deposit-taking initiative to include banking, insurance and securities businesses. Risk-based supervision is emerging as an integrated day-to-day management for banks and no more the sole responsibility of central banks. Managing risk-based supervision requires adroit skills from the individual bank and the banking supervisors. Mastering such skills, however, requires the need to answer the following questions. How can operators use micro-based information to get macro prudential assessment? How can the central bank build a comprehensive and a consistent framework, taking into account correlations between the different risk factors potentially affecting their balance sheets, to encompass the majority of risks borne by banks? How can the interdependencies within the financial sector and interactions between real and financial sector be measured? How can the central bank measure the second round effects and contagion feedback effects as well as aggregate individual reactions to shocks? These questions among others should be given serious consideration.

**Reference**

Bank for International Settlement (2001): "Risk Management in Financial Conglomerates and Prudential Supervision" (www.bis.org).

Bank for International Settlement (2004): *Implementing Basel II; Practical Considerations*, Basel Committee on Banking Supervision, Basel, Switzerland, July 2004: publication@bis.org.

Central Bank of Egypt (2007): "Stress Testing Best Practices & Risk Management Implications for Egyptian Banks", Seminar organized by the Central Bank of Egypt and Egyptian Banking Institute, 21 November 2007.

Gulde, Anne-Marie, David Hoelscher, Alain Ize, David Marston, and Gianni de Nicoló (2004): "Financial Stability in Dollarized Economies," *IMF Occasional Paper* No. 230

IMF (2003): "Financial Sector Assessment Program: Review, Lessons, and Issues Going Forward," and supplements, Feb. 2003, IMF, SM/03/77.

IMF (2006): "Australia: Financial System Stability Assessment, including Reports on the Observance of Standards and Codes on the following topics: Banking Supervision, Insurance Regulation, Securities Regulation, and Payment Systems", IMF Country Report No. 06/372,October.

IMF (2008): World Economic Outlook (WEO)-Housing and the Business Cycle.

IMF (2007): "Mexico: Financial Sector Assessment Program Update Detailed Assessment of Compliance with the Basel Core Principles for Effective Banking Supervision and Transparency of Banking Supervision", Country Report No. 07/172, May.

IMF and the World Bank (2005): "Financial Sector Assessment ProgramReview, Lessons, and Issues Going Forward", The International Monetary Fund and the World Bank, February 22, 2005.

International Organization of Pension Supervisors (IOPS) (2007): "Experiences and Challenges with the Introduction of Risk-Based Supervision for Pension Funds", Working Paper No. 4, 1 August 2007.

Malaysian Securities Commission (MSC) (2005): "Operational Review", Securities Commission Annual Report 2005.

Mirza, Adeel (2008): " Managing Risks in Financial Sector", Ezinearticles.com.

Mohan Rakesh (2006): "Financial Sector and Monetary Policy Reforms: The Indian Experience", Paper delivered by the Deputy Governor of the Reserve Bank of India at the Conference on Economic Policy in Asia at Stanford University, 2 June 2006.

Nepal Rastra Bank (2008): Press Release on Monetary Policy for 2008/9, 29 September 2008.

Watanagase, Tarisa (2004): "Managing Pro-cyclicality of the Financial System: Experiences in Asia and Policy Options", Speech of the Deputy Governor of Bank of Thailand, During the Seminar on Managing Pro-cyclicality of the Financial System, Hong Kong, China, 22 November 2004.