

**MODERN FINANCE AND THE TRANSFORMATION OF
FINANCIAL SYSTEMS: KEY CONSIDERATIONS FOR EGYPT
IN LIGHT OF THE GLOBAL CRISIS**

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ABSTRACT

This paper considers the impact of *modern* financial mechanisms on the transformation of financial systems from a political economy of finance standpoint in light of the global crisis. Over the last three decades, many financing practices were imported under financial liberalization, strengthening arms length market banking in Egypt, and transforming the processes, institutions, and relationships of financial intermediation to become more market-based. Taking into account the particularities of every country, the study analyzes whether such a transformation is (a) feasible and (b) desirable for Egypt. The first section of the paper analyzes the impacts of *modern* financing mechanisms on the financial system, the shift towards a market-based direction, and the repercussions on market economies pertinent to information gathering and risk assessment by new kinds of institutions- not necessarily suited to the institutional framework in developing countries like Egypt. The second section reviews the role of financial intermediaries and the theoretical challenges facing the modern lender-borrower relationships. The focus is on financialization of contemporary capitalism and the transformation of banks. The paper concludes that the spread of *modern* techniques has fostered changes in banking relationships to be more arms length and market-based. This transformation is not necessarily desirable for Egypt where access to finance by small and medium enterprises is an impediment to economic development. This raises questions on the optimal design of the financial system to enable prudently regulated access to finance as a key point for consideration.

ملخص

تتناول هذه الدراسة تحليل أثر آليات التمويل الحديثة على تحول الأنظمة المالية من منظور الاقتصاد السياسي للتمويل في ضوء الأزمة العالمية، وينقسم التحليل قسمين أساسيين؛ يتناول القسم الأول انعكاسات آليات التمويل الحديثة على النظام المالي، أخذاً في الاعتبار دورها كمحرك لتحول النظام المالي إلى نظام السوق. وينعكس ذلك بالسلب في إطار اقتصاديات السوق على عملية جمع البيانات وتقييم المخاطر من قبل أنواع جديدة من المؤسسات قد لا تلائم الإطار المؤسسي في الدول النامية مثل مصر. ويتناول القسم الثاني دور المؤسسات المالية، أخذاً في الاعتبار المعوقات النظرية المرتبطة بالتغير في ديناميكيات العلاقة بين مانح التمويل والمقترض. وبالتالي يركز التحليل على تمويل النظام الرأسمالي الحديث وتحول البنوك. وتخلص الورقة إلى أن انتشار الوسائل والآليات الحديثة قد دفع إلى حدوث تغيير في العلاقات البنكية نحو مزيد من التوسع والامتداد، ظهرت آثاره في التحول المنتظم الذي كان بمثابة الدافع نحو نظام مالي قائم على آليات السوق. قد لا يكون هذا التحول بالضرورة مرغوباً فيه للدول النامية مثل مصر، حيث يشكل حصول المشروعات الصغيرة والمتوسطة على التمويل عائقاً أمام التنمية الاقتصادية. ويثير ذلك التساؤلات عن التصميم الأمثل للنظام المالي الذي من شأنه تنظيم الحصول على التمويل.

1. INTRODUCTION

Financial systems play a critical role in any capitalist economy by intermediating between savers and investors as well as providing other financial services to commercial traders. Over the last three decades, a multitude of financing practices have been imported from developed to developing countries under the banner of modernity and have become deeply entrenched in the transmission of loanable capital. The result has been a transformation of financial systems across key financial centers from being bank-based to being market-based. Contemporary literature and the Washington Consensus position this transformation as a positive development towards a *modern* financial system. Indeed, it is very difficult to depict what comprises a *modern* financial system without being implicated in subjectivity or bias. Rather, there are characteristics that delineate a well-functioning financial system; namely access to credit, relationships that result in the provision of a long-term finance, adequate legal settings, and the activity of the capital market. The process of creating financial mechanisms conducive to development must take into account the economic, political, and social particularities of each country which are directly related to historic and institutional specificity.

Over the last three decades, market-based finance has become the dominant form of financial systems across the developed financial centers, and with it came a strong wave of financial liberalization across the global economy. However, the *modernity* characterizing market-based finance has also been associated with systemic weaknesses that culminated into the current financial crisis which has engulfed the world and dislocated financial markets. The financial crisis has clearly exposed the perils of unrestrained markets and has shown that financial regulators find difficulty in striking an appropriate balance between regulation and modernity. Over the last decade, this created an environment of lax credit policies and cheap credit which concentrated system risk. Arguably, securitization has been at the fore of innovation in financial markets and has played a big role in transforming the way financial systems work as well as the approach towards granting credit.

In mainstream literature, arguments for the use of securitization are largely grounded on the information theoretic approach. Securitization is argued to have positive economic implications through its effect on informational asymmetries characterizing lender-borrower relationships by acting as a '*low cost sweetener*' for Akerlof's lemons problem (Hill 1996; Akerlof 1970). In addition, other views support financial intermediaries' use of this technique due to the favorable effects it can arguably have on risk management, liquidity, and profitability. Paradoxically, a point that has been largely overlooked in the mainstream analysis of modern finance is that there exists a contradiction between securitization and neoclassical theory of banking. If banks exist to deal with posited transactional frictions between lenders and borrowers, it is peculiar that banks themselves become agents by selling their loans through securitization. As such, one can argue that either securitization does not really have a theoretical justification in the neoclassical model of financial intermediation per se, or banks themselves do not.

This paper considers the effects of modern finance and securitization on the financial system, focusing on institutional transformations and changes which push the financial system to be more market-based.¹ One can argue that the introduction of creative financing techniques to the financial system has resulted in the introduction of new institutions and processes to gather information and price risk.² However, this transformation has created complexities and the current crisis has arguably stemmed from these complexities and the failure of these new institutions and processes to perform their putative functions. The result has been a mispricing of credit risk and magnified systemic risks. For Egypt, this has implications pertaining to the design of the financial system as a whole, in terms of its organizational and institutional requirements, to make it a more efficient platform for mobilizing capital from savers to investors.

2. MODERNIZATION AND FINANCIAL SYSTEMS

2.1 Securitization and Market-based Finance

The mainstream views regarding the optimal design of the financial system have oscillated substantially between bank-based and market-based structures during the second half of the twentieth century. In the early 1980s, the bank-based system of Japan or Germany was thought to be more conducive to long-term investment and growth. However, this perception changed in the 1990s, as Japan fell in a long recession and the US economy accelerated into a prolonged boom on the back of a fast-growing IT industry. What is interesting to note is that the spread of securitization as a financing technique appears to have coincided with the emergence of market-based financial systems. The use of securitization became pervasive in the mid-1980s, i.e., about the same time when market-based finance began to gain popularity.

Theoretical foundations for the emergence of market-based finance during the last twenty five years can be traced to the works of early economists (Hilferding 1910). At the core of these foundations is that in the early stages of capitalism development, there were market-based banks which provided circulation credit to finance commercial activity and investment credit to finance fixed assets. However, as the economy gets bigger, investment requirements get larger because the scale of production gets larger, which dictates a change in the nature of the relationship between corporations and banks. Specifically, a need for long-term financing arises, and the relationship between banks and their clients must become long-term and interlocked.

In reality, this has not happened when it was needed, with the possible exception of Japan and Germany where banks there have managed principal/agent problems through traditional techniques such as interest rate screening, over-collateralization, and monitoring, as well as being immersed in the borrower's business either informally (through managing deposits as well as loans to have better information) or formally (through restrictive covenants, equity

1. Market-based systems here are defined as the Anglo/Saxon financial models that rely more on financial markets for raising capital rather than relying on banks like the Japanese/German models.

2. Primarily credit rating agencies and risk enhancement institutions.

shareholding, and board representation). On the contrary, market-based finance has become the dominant form of financial system over the last twenty five years. During the course of its growth, numerous *modern* processes and institutions emerged to augment the market mechanism and to enable it to fulfill the role of a platform for raising capital. Key among those new financial innovations is securitization. By allowing the creation of structured markets which enable the pooling of illiquid financial assets and advancing them as tradable securities, securitization has complemented the functionality of market-based systems and has been one of the factors that helped strengthen the market-based aspects of finance.

Arguably, Adam Smith's depiction of the free market system was not premised on unrestrained market forces. Instead, it aspired for institutional diversity and motivational variety where the state played the important role of performing the things that the market might fail to do, for example, the provision of public education and healthcare. This also applies in the context of financial markets. Financial markets, and particularly credit risk, have become increasingly opaque and difficult to trace as a result of modern transactions executed on the secondary markets for structured credit involving derivatives and other financial instruments. This manifested itself in the sub-prime crisis, where banks were able to pass off sub-prime credit risk to other parties as highly rated securities through creative structuring mechanisms.

2.2 The Paradox of Securitization in Neo-classical Theory of Banking

The main role of financial intermediaries in the economy, as repeatedly demonstrated in neo-classical models, is to ameliorate transactional frictions by acting as specialized information gatherers to manage adverse selection *ex ante* and to act as delegated monitors *ex post* (Diamond 1984). The microeconomic underpinnings of securitization are premised on capital funding considerations. At the most general level, the use of securitization by lending institutions can be described as recycling operating capital by packaging and selling loans to manage liquidity and capital requirements. Mainstream views on securitization argue that this technique acts as an effective signaling process to decrease informational asymmetries between the lender and the borrower by enabling the borrower to *ring fence* assets and disclose information sets on them which enable the lender to make an informed decision on credit worth (Hill 1996). Seen in this light, securitization arguably helps in addressing the *ex ante* information problem of adverse selection. More precisely, by enabling maturity transformation of long-term loans through pooling assets and selling their future flows, securitization enables banks to raise new resources which can be used as new loanable capital without having to incur incremental liability exposures by increasing deposits or increasing the capital base. In other words, securitization enables banks to gain regulatory arbitrage.

On the other hand, securitization contradicts the foundations of neo-classical theory of banking in that it allows financial institutions to pass on default risks to the buyers of asset-backed securities— thus not providing an institutional resolution to *ex post* informational problems. This has significant ramifications on systemic risk as evidenced by the current crisis. In neo-classical theory of banking, financial intermediaries play the role of delegated monitors *ex*

post the transaction to manage moral hazard. What the mechanism of securitization actually does is alleviate this responsibility from banks by creating a secondary market for trading bank assets, allowing banks to remove loans from their balance sheet and with it also possibly forego the monitoring role which they were entrusted with in the first instance. This concentrates system risk by masking credit risk and making it more difficult to trace in the financial system.

2.3 Institutional Transformations in Developed Markets

Historically, the introduction of modern finance into the international financial system took place through the US mortgage market, where the use of securitization became pervasive since the 1980s. The introduction of the mechanism entailed the *commodification* of mortgages and standardization of criteria and procedures rather than depending on *soft* relational based appraisal processes. This change catalyzed the shift in the US housing finance market from an intermediary-based to a securities-market-based system. Before that change, lenders typically held mortgages to maturity, exposing them to both default and liquidity risk. With this new change, mortgages were packaged and sold on the securities markets through securitization. Two specific changes were brought about by the introduction of securitization into the financial system. First, default risk became more standardized and its assessment became more reliant on computationally intensive processes. Second, federal sponsored agencies started buying an increasing share of mortgage debt which was sold to the market in the form of securities.

The introduction of modern financial processes like securitization significantly changed the US financial system transforming it from a system that relies on local savings and lenders to a system that relies on nationally set lending criteria that heavily relied on technology. This significantly diluted the relationship lending approach which relied on direct knowledge and replaced it with credit decisions that relied on globally-established systems of credit scoring. As part of this transformation, new institutions and institutional processes came into the market to facilitate the forms and processes of securitization. More specifically, technological innovations gave rise to financial creativity that changed the structure and processes of financial intermediation. Retail loan applications became systematically evaluated using credit scoring software, rather than through direct knowledge and human judgment.

However, it has for long been suspected that, as a result of this transformation, serious systemic risks can ensue as information and risk become poorly managed due to the advent of different institutions and complex processes to manage and price risks. Such “an expanded and more complex financial sector is more likely to contain institutions which will go bankrupt, but the degree of risk-taking and risk of failure are endogenous to a deposit insured system, unless the government can devise policies to offset the moral hazard impact of deposit insurance. Inevitably, this balance is hard to attain, and financial crises are a concomitant of financial reform” (Pomfret 2009). In an extreme scenario of default, residual risks concentrated by securitization can start a chain reaction resulting in a sudden financial crisis that destabilizes the whole financial system and affects the real economy through spill-over macro-economic effects. This is reminiscent of the credit crunch triggered by the sub-prime crisis in 2007 which crippled

the interbank market. In the summer of 2007, American banks found it increasingly difficult to obtain credit on the inter-bank market. This was primarily due to worries regarding the quality of mortgage-backed securities held in abundance on the balance sheets of these banks. As mortgage failures rose, mortgage-backed securities became very difficult to sell, resulting in a loss of liquidity and a collapse in trust. Banks opted to hold high levels of liquid funds, rather than lend to each other due to concentrated informational asymmetries. This liquidity crunch turned into a fully fledged crisis triggered by the collapse of Lehman Brothers in September 2008.

The crisis highlights the extent of transformations in banking over the last thirty years. Banks became increasingly focused on lending consumer loans to individuals. In addition, banks became heavily reliant on loan sales through securitization as a source of liquidity. More specifically, securitization has been an important engine for the *financialization* of capitalism. Financialization is broadly defined as the shift in gravity of economic activity from production to finance. Two significant changes have ensued from the financialization of capitalism. First, financial institutions are relying a lot more on individuals rather than industrial corporations to derive economic profits. Second, banks are increasingly focusing on packaging their loans and selling them as securities to draw fee income rather than holding their loans to maturity to generate interest income. The impact of securitization on banks and their *raison d'être* is considered in the next section of this paper.

Paradoxically, it appears that while securitization has helped making market-based finance more perverse from the 1980s to date, the mechanism has also created a new source of financial fragility in market-based systems by being an engine for liberally granting credit and by introducing new institutions and processes for gathering information and managing risk into the system. Over the last three decades, financial market liberalization has been concomitant to prolonged periods of economic prosperity punctuated by frequent crises. The current crisis reinforces the argument that the new institutions and processes of market-based finance have failed to perform their putative functions. This raises critical questions regarding the optimal design of the financial system of developing countries given the spectacular implosion of innovative financial markets.

3. SECURITIZATION AND THE ROLE OF BANKS

3.1. The Role of Financial Intermediaries in Neo-Classical Theory of Banking

The economic functions of financial institutions in an economy are to mobilize savings into investment by pooling risks, and to provide payments and other services by acting as intermediaries. The importance of finance and financing structures for the real economy has been extensively covered in economic research. Financial institutions are seen as important for the real economy because they mobilize capital and allocate it to enterprises. However, from the 1950s until the 1970s, finance became largely ignored as a topic both in developing and developed countries because of two reasons. The first reason was the existence of extensive controls, or ceilings, which resulted in a prolonged period of what is commonly referred to as 'financial

repression'. The second reason was the rise of the 'methodological revolution' into mainstream economic thought.

At the core of the methodological revolution is the view that the economy should be viewed through the prism of the aggregate behaviors of rational optimizing agents according to a common set of axioms using the Axiomatic Deductive Approach (Arrow and Debreu 1954). This approach is predicated on individual rationality and explicates the functioning of the economy using axioms concerning 'preference relations' and 'production sets' between optimizing agents. This revolution changed the mainstream views of financing structures to be dismissed as either irrelevant to the process of accumulation or simply a reaction to what happens in the real economy. In addition, the publication of the Modigliani-Miller theorem³ effectively negated the relevance of financing decisions and marginalized the role of finance as a whole.

Mainstream views towards finance began to shift again by the late 1970s. The influential works of McKinnon (1973) and Shaw (1973) demonstrated why financial repression should be abandoned and provided the theoretical core for the wave of financial liberalization which ensued shortly thereafter. However, as financial liberalization did not achieve the expected results, endogenous growth theory arose broadly arguing that growth results from market imperfections and that finance is a catalyst of growth. This brought finance back to the mainstream economic thought and resulted in the emergence of financial system design as an important topic of debate between economists. The importance of financial systems for economic growth has consistently been a topic of interest in economic research. It is now widely believed that a well-functioning financial system to mobilize savings into investments is critical for economic success. Within that discussion, financial systems have been generally divided into bank-based systems, like in Japan and Germany, or market-based systems, like in the USA or the UK.

Bank-based finance is based on principal/agent relationships and indirect provision of finance to resolve these transactional frictions between the borrower and the lender. Savers use banks to pool small funds, minimize risks, and manage imperfect information. The system is based on the assumptions that information is imperfect; creating the agency problems of *ex ante* adverse selection and *ex post* moral hazard. This is the key theoretical justification for the existence of banks in neoclassical theory of banking. Using an information theoretic approach, neo-classical theory of banking shows that banks specialize in dealing with these posited principal/agent problems by using techniques like interest rate screening to manage adverse selection and over-collateralization and monitoring to manage moral hazard. Moreover, banks can possibly do more than that to manage principal/agent problems; they can control a borrower's enterprise either informally (through managing deposits as well as loans to have better information) or formally (through restrictive covenants, equity shareholding, and board

3. Modigliani and Miller (1958) argued that one of the core problems of corporate finance- the problem of the optimal capital structure for a firm- is no problem at all.

representation). By performing these roles banks provide solutions to informational asymmetries, through screening techniques, and to moral hazard, by acting as delegated monitors resulting in a Pareto improvement for the economy.

Akerlof's (1970) model on adverse selection provides the micro foundations for the existence of financial intermediaries and the contribution of the financial system to economic growth. At the most general level, differences in the information sets held by agents in an economy give rise to transaction costs which result in imperfect markets (Pareto inefficiency). On the assumption that borrowers know more than lenders about projects to be financed, banks are shown to act as specialist information gatherers and assessors enabling the flow of funds from savers to borrowers. By definition, the existence of financial markets and intermediaries that manage these transactional frictions is seen as a Pareto improvement because it would improve informational asymmetries and move the economy in the direction of perfect information frictionless markets envisaged under general equilibrium analysis.

3.2 Financialization, Securitization, and the Transformation of Banks

Modern financial theory has effectively become a branch of microeconomics. Financial intermediation is viewed through the prism of general equilibrium, using information-theoretic models and a principal-agent framework. More specifically, information and transaction costs are shown as the main reason for the development of financial markets and institutions as a response to posited informational problems between the lender and the borrower. As such, the information theoretic paradigm postulates that financial intermediaries exist as institutions that structure an incentive compatible debt contract on behalf of savers due to their comparative advantage in gathering and assessing information.

In addition, banks exist to fulfill the role of the *ex post* principals of transactions to ensure that there will be no behavioral changes on the part of the borrower which would give rise to moral hazard by acting as delegated monitors. In fulfilling their functions, banks are required to take on illiquid assets in the form of loans which are screened, monitored, and held to maturity, while having liquid liabilities in the form of deposits. Historically, banks have dealt with this problem by holding liquid reserve assets. However, this is expensive for banks because it derives low income. As part of the transformation of banks, the period of financialization saw a gradual lifting of reserve controls and more increasing reliance on open markets for liquidity.

The strengthening tide of market-based finance over the last three decades has transformed the way banks derive their income. The functions of contemporary banks are very different from those of traditional banks depicted in neo-classical theory of finance. Traditional banks focus on taking deposits from corporations and individuals, advancing loans to enterprises, and making profits from the interest differential between deposits and loans. On the other hand, contemporary banks have greatly expanded their scope of operations. Perhaps the most significant change is that "banking has become heavily dependent on lending to individuals and the direct extraction of revenues from ordinary wage-earners. It has also become enmeshed with

capital markets, where banks mediate financial market transactions involving bonds, equity, and derivative assets, and where they increasingly obtain funding. And it increasingly relies on inference-based techniques for the estimation of risk of capital market instruments and banks' own financial position" (Dos Santos 2009). The transformation of banking has been a result of the interplay between several factors. Innovations in IT systems in particular have transformed banks from being relationship driven intermediaries to being computationally-intensive risk management shedders engaging in a broad variety of financial activities.

This transformation of banks has been largely a result of the financialization of contemporary capitalism. Finance now penetrates every aspect of society including the basic essentials of having access to housing, education, and health care. As a result of financialization, an increasing number of wage-earners have become involved in the financial market. This has resulted in rising personal indebtedness for housing and consumption in addition to more reliance on private financial institutions. As a result, interest income as a proportion of total bank income has been gradually dropping. In addition, individuals directed a larger proportion of savings away from bank deposits towards mutual investment funds. Also, the importance of bank debt to enterprises has gradually fallen to be displaced by bonds issued in open markets. This has placed considerable pressure on banks, especially privately owned ones, to maintain their profitability. As a response, banks developed new revenue sources through engaging in the fee-generating business of financial market mediation by providing brokerage, investment banking, and asset management services.

This transformation in the financial system has arguably been in the making for more than two decades; since the late 1960s there has been a gradual deregulation of interest rates and lending activities. This spurred rapid financial innovation and gave rise to the markets for structured credit. Simultaneously, the reliance of industrial corporations on bank loans for funding has been gradually decreasing as they turned more towards direct markets. Banks responded by turning toward the personal income of individuals (by providing mortgages, retail loans, and credit cards) as well as focusing on financial market mediation (brokering and trading securities, derivatives, and other services related to capital markets). The growth of securitization has arguably coincided with, or even catalyzed, these two responses in developed countries.

However, a closer look at securitization reveals that, when used by banks, it contradicts neo-classical theory of banking in that it causes banks to actually become the agents, not the principals, by enabling them to sell their loans and make their profits through fee income. From a political economy perspective, banks are seen as financial intermediaries that derive profit from the difference between interest on their assets and liabilities, with industrial and commercial enterprises being their main borrowers. Financialization has transformed the source of banking profits by shifting the focus away from lending to enterprises and towards lending to individuals. A key question, raised in the mainstream literature on the securitization of banking assets, is how can buyers of securities like collateralized loan obligations ensure that banks are not selling off their riskiest loans to them given the inherent informational asymmetries? Hitherto the answer

seems to have been provided by regulation and by the introduction of new processes and institutions into the financial system to manage the transaction frictions between banks and their customers and to price the risks being sold off by banks.

A key feature of banking— and indeed a theoretical justification for the existence of financial intermediaries— is that banks assess the risk of their assets using their informational advantages acquired through long-term relationships. A key feature of financialization and the introduction of modern finance is a shift away from relational-based lending which is based on soft information and direct knowledge of the borrower to technologically intensive stochastic analysis. “More specifically, banks have adopted ‘credit scoring’. These are ‘arms-length’ techniques that rely on collecting numerical information (income, age, assets, etc.) and producing an individual score. The results are statistically manipulated using computer power and databases, which have been avidly acquired by banks. This gives to the process a scientific veneer, while loans are advanced if the individual clears a given threshold. Subprime mortgages were precisely loans for which the threshold was set deliberately low” (Lapavitsas 2009).

However, as demonstrated by the financial crisis, these new processes and institutional changes have failed to correctly price default risk because they have failed to manage the informational asymmetries between banks and their clients. In itself the crisis is palpable evidence that the innovations of modern finance characterizing financialized capitalism can have adverse effects on the financial system. By using complex structures,⁴ securitization allows financial intermediaries to off load credit risk from their balance sheet to often unknowing investors. The mechanism allows banks to act as borrowers through selling, or recycling their loans in return for new loanable funds. A peculiar aspect of this mechanism is that new types of institutions— credit rating agencies and credit enhancers— are introduced into the system to mediate between banks and their clients.

A further peculiar aspect is that credit rating agencies are appointed and paid by banks to act as information gatherers and assessors to ascertain the credit worth of the loans being sold by the banks and to socialize their findings to investors. Not only does this give rise to notable conflicts of interest between banks and investors, but also it implies a transformation in the role of banks in the financial system. More specifically, it appears that financial innovation has led banks to become transient holders of financial instruments rather than long-term holders of loans. Simultaneously, banks are deriving a larger portion of their incomes from fee business through selling loans and financial market mediation, which significantly deviates them from their role depicted in the neo-classical theory of banking.

Prima facie, this transformation in the financial system appeared to function to some degree, albeit occasional *glitches* recurred. However, the onslaught of the sub-prime mortgage crisis in the US and its subsequent contagion into a fully fledged global crisis has lent credence to political economy arguments that the system is flawed. The current financial crisis originated

4. See Kendall and Fishman (1996) for an explanation of the structures of securitization

in the US due to the imprudent expansion of sub-prime mortgage lending. Banks profited from this sub-prime debt by securitizing it into tradable securities rather than through interest income. It appears that banks of all sizes engaged in large scale mortgage lending without conducting diligent appraisal of the credit risks they were taking due to their reliance on formal arms-length processes rather than local knowledge.

Further, it appears that securitization significantly aided financialization by allowing mortgages to be pooled, packaged, and sold as highly rated securities that got scattered across the world. Banks were tempted to advance imprudent credit to sub-prime clients based on the assumption that these sub-prime credit risks would be pooled into tradable securities which would be sold in the open market. This has produced a peculiar outcome: banks have metamorphosed from being providers of long-term finance to industry into traders of risky instruments acquired by lending to individuals.

In addition, the conflict of interests that arises between banks and their customers as a result of the securitization of banking assets lends credence to the argument that the relational aspects of financial intermediation cannot be *marketized* and substituted by innovative models of risk estimation. Heterodox views on financial intermediation, including those of international political economy, have repeatedly highlighted the systemic risks that result from the transformation of banking relationships and the globalization of finance. These views generally approach the topic of financial intermediation from a social and relational perspective. The rapid innovations in finance seem to have spurred markets which have outgrown governments; it is increasingly the case that volatile markets rather than prudential regulations are driving the financial system, resulting in serious social and economic ramifications and amplified systemic risks.

This is, to a large extent, the result of financialization and the transformation of banks whereby banks have gradually moved away from industrial and commercial capital, and increasingly turned their attention to personal lending. Today, financial intermediation is no longer reliant on local knowledge and direct relationships as finance continues to become more and more internationalized. The emergence of an *ecology of devices* for producing and processing information has resulted in the proceduralization of lender-borrower relationships (Hutchins 1995). The importance of local knowledge and direct relationships in banking has been downgraded in recent years and more emphasis has been placed on the systemic use of empirical information on customers derived from other sources. Furthermore, the advent of securitization has made it possible for banks to make imprudent credit decisions comforted by the fact that high risk loans would not be held to maturity.

Arguably, the corporate governance of banks may give them an incentive to take risk. A recurring theme in regulating banks is ensuring that they maintain adequate capital ratios to cover their loan exposures. Indeed, this is the stated rationale behind the Basle I and Basle II capital adequacy rules implemented by the Bank for International Settlement. However, the crisis has clearly exposed the structural weaknesses of Basle II; instead of enticing banks to focus on

having enough capital to mitigate defaults, it appears to have given banks an incentive to seek regulatory arbitrage to minimize surplus capital by using off-balance-sheet financing mechanisms like securitization which have no capital adequacy requirements. It appears that securitization of banking assets has emerged in developed markets as a reaction to bypass *regulatory nets*. The securitization of banking assets moved credit risk via derivatives and structured vehicles out of the banking system. However, this merely moved the risk elsewhere in the financial system rather than reduced it. The crisis was largely triggered by the realization that risks have become difficult to trace in the financial system, resulting in a widespread loss of confidence. Accordingly, one can argue that the use of creative structures has led to a peculiar transformation of banks and has amplified systemic risk.

The transformation also defies the theoretical reasons underlying the existence of banks. By definition, bank loans are illiquid and are designed to be held to maturity. Selling bank loans contradicts theories of financial intermediation; it also contradicts the rationale for much of bank regulation and Central Bank policy. By selling their loans to investors through issuing asset-backed securities, the role of banks has diverted significantly from their functions underlying the micro foundations of banking. Theories of financial intermediation stipulate that the credit evaluation and monitoring services performed by banks require banks to hold loans to maturity for the sake of incentive compatibility. Holding loans until maturity is a good way of ensuring that banks will effectively evaluate and monitor borrowers' risk profile and behavior. Instead of being principals that specialize in managing transactional frictions, modern banks have been transformed into agents themselves, requiring third parties (credit rating agencies) to ascertain their riskiness to potential lenders (investors), when they sell their loans as tradable securities. This is a peculiar outcome of financial innovation which is currently at the heart of the debate around financial system architecture in the aftermath of the crisis.

In a market where banks become agents themselves and become misaligned in fulfilling their role as delegated monitors, challenges arise relating to the safety of the financial system and its effectiveness in addressing the informational frictions which provide the theoretical justifications for its existence. It is also important to note that securitization has emerged as a mechanism for credit risk transfer primarily by privately owned commercial banks. State-owned and co-operative banks typically do not engage in securitization because they are under less pressure from their shareholders to deliver high return on assets. State banks exist primarily to provide reliable banking services and to fulfill a developmental role, whereas the profit motive comes as a distant secondary target for these banks. The financial crisis which has stemmed out of the financialization of contemporary capitalism and the modernization of the financial system casts doubts over the soundness of loosely regulated, unrestrained market practices and lends more credence to political economy advocating more stringent regulation and alternative ways of organizing the international financial system. For developing countries, the experience of developed countries and the current crisis begs the questions of whether financial innovation, the

institutions and mechanisms of modern market-based finance are (a) feasible and (b) desirable for financial development.

4. KEY IMPLICATIONS TO EGYPT'S FINANCIAL SYSTEM ACTUAL AND FUTURE PERFORMANCE IN LIGHT OF THE GLOBAL CRISIS

The financial systems of developed countries have been deeply transformed as a result of modern finance. This transformation has resulted in financial intermediaries shifting focus away from lending to productive industry (i.e., enterprises) towards lending to individuals. Arguably, such a transformation can be risky for a developing country like Egypt depending on the degree of development of the institutional framework. The final section of this paper focuses on three key points pertaining to the Egyptian financial system. First, to provide a synopsis of financial sector reforms that took place over the last five years. Second, to provide a brief assessment of the opportunities and challenges associated with the introduction of mortgage finance in Egypt, and finally to assess progress made on availing access to finance for small and medium private enterprises in Egypt.

4.1 Key Reform Initiatives in the Financial System

From the 1990s, Egypt embarked on a comprehensive financial liberalization and deregulation program which aimed to mobilize savings and make capital available for long-term investment to catalyze economic activity. Financial deregulation in Egypt was implemented over stages beginning by (a) appointing technocrat supervisory boards and management teams for the four state banks⁵ in the mid 1990s; (b) allowing banks to set their own interest rates; (c) removing credit restrictions on several sectors, thus giving banks the freedom to make their own credit decisions; and (d) implementing legislative reforms to the banking law in order to create stronger, more sizeable private sector banks.

“Since the mid 1990s, Egypt has made great strides to reform and enhance its monetary policy framework. Major structural changes include the abolition of the *de jure* exchange rate peg— which also served as a nominal anchor— in 2000, the change in monetary operations with the introduction of the domestic currency overnight interbank market in 2001, the launch of the foreign exchange interbank market in 2004, and the introduction of the corridor for overnight facilities as main policy instrument in June 2005” (Al-Mashat, and Billmeier 2008). Since the completion of the Economic Reform and Structural Adjustment Program (ERSAP) in 1996, there have been notable achievements in monetary and banking sector reforms in Egypt, especially since 2004.

4.1.1 The new banking laws and operational improvements

Legislation governing the Egyptian banking market was comprehensively revised in 2004. Bahaa Eldin, and Mohieldin (1998) argue that the wave of liberalization witnessed by Egypt's financial

5. Bank of Alexandria has since been privatized

sector in the 1990s required maintaining the safety and stability of the banking system through prudential regulation. In their view, this was a necessary step to manage the shortcomings of the transition to laissez-faire banking. “Prudential regulation generally seeks to prevent systemic risk, minimize financial instability, and ensure that financial intermediaries are adequately capitalized and professionally managed” (Bahaa Eldin and Mohieldin 1998). Under the old banking laws, prudential regulation proved difficult to achieve, as evidenced by the non-performing loans crisis which followed the credit boom of the late 1990s.

Old laws were replaced by a new Central Bank and Banking Sector Law in 2003. Historically, one of the main weaknesses of the Egyptian banking sector was its fragmentation, with the presence of too many banks with too little aptitude. The CBE’s first measure was to address this weakness through a *Unified Banking Law*. This law raised the required minimum capitalization of operating banks in the Egyptian market to five hundred million Egyptian pounds, up from one hundred million Egyptian pounds required by the old law. The deadline for compliance was scheduled for July 2005. At the time of issuing the law in 2003, less than fifteen banks out of the operating sixty four banks were meeting the minimum capitalization requirement. The new law spurred consolidation in the banking sector whereby smaller banks joined to form bigger entities through mergers or were acquired by bigger banks.

The new law brought the institutional structure of the Egyptian financial system one step closer to the model currently adopted by continental European countries. This is also in line with recent trends witnessed in the international financial system.⁶ Recent global trends in international finance have led to convergence in financial systems across the world. Banking markets have consolidated to comprise fewer, larger banks that offer a broad spectrum of financial services. This institutional structure has become prevalent in the developed financial centers around the world including the US, the UK, France, Italy, and Spain.

Five years after the new banking law came into effect, one can argue that it strengthened the financial system by (a) creating bigger entities which have the financial muscles to broaden their service thus offering increasing banks’ ability to cater for the diversified financing needs of their clients; (b) enhancing financial institutions’ ability to compete with international banks; and (c) improving the capacity for risk management by generalizing best practice from the bigger and best run banks.

4.1.2 Establishment of a monetary policy committee (MPC) and reforms to the operational framework

“In 2005, The CBE took the decision to move toward an inflation targeting framework, both institutionally and operationally. Institutional changes included the establishment of a Monetary Policy Committee (MPC) that decides on the monetary stance and issues a statement after its meetings, and a Monetary Policy Unit (MPU) within the Central Bank to prepare the MPC

6. See, for example, Caprio and Claessens (1997).

decisions, based on a variety of inflation forecasting models” (Al-Mashat and Billmeier 2008). In addition, the CBE continues to improve its operational framework and its monetary policy framework to support its Inflation Targeting policy. These operational improvements have mainly been implemented through price instruments and an interest rate corridor to steer overnight interest rates.

4.1.3 Credit rating agencies

A significant measure undertaken by the CBE was to attempt to decrease the agency costs characterizing the lender-borrower relationship by proposing to parliament a law that allows the establishment of credit bureaus. Until 2005, there had been no credit bureaus operating in the Egyptian market. As such, transaction costs resulting out of informational asymmetries were very significant in debt contracts. For example, individual borrowers had the ability to default with one bank and seek credit from another without having to disclose their bad credit history. The new law, approved by the Egyptian parliament in 2005, allowed the building of credit history databases for the first time in Egypt’s history.

The law also legalized the dissemination of clients’ credit history from one bank to another or from credit bureaus to banks prior to the extension of credit or other services– something previously prohibited by the civil rights law. Since passing of the law, the first credit bureau was set up in 2005 under the name I-Score. The role of I-Score is to gather all information about customers, whether associated with credit companies and financial institutions, retailers and credit provided by banks or other providers from all available sources of information. This information is then used to create certified official records of that information with the company, analyzing the data and classifying it. Finally, I-Score creates indicators of credit quality for debtors whether individuals or institutions, making it possible for them to form a credit history. This development is expected to increase the volume of banking activity and penetration while also increasing the availability of information sets that were previously unavailable resulting in credit rationing and over pricing of credit.

4.1.4 Dollar inter-banking system

A dollar inter-banking system was created starting from January 2005 to help banks better manage their foreign currency positions and their short-term foreign currency deposits. This has increased the CBE’s ability to bring stability to the foreign exchange (FX) market and has dampened concerns over short-term currency volatility. Since the implementation of this system, the local currency has appreciated by 12 percent⁷ over the last four years.

4.1.5 Unified tax system

Complementing these changes was the drafting of a new tax law to replace the outdated and fragmented tax laws. This new law was approved by the Egyptian Parliament in 2005 and was implemented in June 2005. The passing of the new law had notable repercussions on economic

7. Difference between the published FX rate by the CBE on January 2, 2005 and November 17, 2009.

activity, but more interestingly on banking activity. The new system set the ceiling for corporate taxes at 20 percent (down from 40 percent previously) which increased the profitability of Egyptian banks. Importantly, under the new tax system loan loss provisions will be tax deductible since they will be considered as an expense. This is an important step which complements the CBE's reform and supervision initiatives to encourage more prudent credit provisioning policies in banks.

4.2 The Development of a Mortgage Finance Market in Egypt

A key development in the Egyptian financial system over the last five years has been the introduction of mortgage financing. The Egyptian real estate financing law was approved in parliament in 2001, but its executive regulations stayed under discussion for a period of two years after that. In 2003, the real estate financing law was enacted through the approval of its executive regulations in parliament. Prior to this law, mortgage financing was practically unattainable in Egypt due to the prohibition of eviction of tenants and foreclosure of residential assets under the civil rights law. This practically negated the value of real estate property as collateral for banks and resulted in banks denying credit to low and middle income home buyers.

On the other hand, the absence of adequate housing financing instruments resulted in pockets of captive demand. In principle, the mortgage law is likely to (a) deepen the financial system by enabling banks to provide different mechanisms for long-term financing of the real estate sector; (b) promote economic development by providing an impetus for real estate development; and (c) promote social development by empowering the previously *unbankable* middle class through providing them with access to funds for property purchases.

Since the enactment of the mortgage finance law, eleven mortgage companies have entered the market and are providing a much needed alternative for vendor financing schemes.⁸ In addition, the roll out of the World Bank's mortgage finance program for Egypt⁹ and the establishment of the Egyptian Company for Mortgage Refinancing to provide refinancing solutions for longer-term residential mortgage loans, originated by lenders in the primary market, should catalyze the development of the market and eventually initiate mortgage-backed securitization activities. Most recently, the World Bank approved 'The Affordable Mortgage Finance Program for Egypt' which aims to support reform of the current system of inefficient and poorly targeted supply-side subsidies for housing for the broad low and middle income sector and replace them with a transparent and economically efficient demand-side subsidy system.¹⁰

Although these developments should be seen in a positive light within the context of economic development, it should also be noted that it brings with it institutional transformations

8. Typically five year financing plans offered by real estate developers without banking intermediation.

9. See the World Bank's "Egypt Mortgage Finance Project".

10. See the World Bank's "Affordable Mortgage Finance Program Development Policy Loan Program for the Arab Republic of Egypt".

that should be fully considered. While the introduction of the Egyptian Credit Bureau I-Score is a necessary step to enable mortgage financing activities to take place, however, the introduction of this type of institution into the Egyptian financial system for the first time should be treated with caution because the malfunctioning of credit bureaus and credit rating agencies in the US has been a root cause to the sub-prime mortgage crisis. The processes of how I-Score collects, processes and socializes information must be very tightly regulated to ensure that statistical inference and modern computer packages do not override the sound human judgment and the relational dimensions of lending which are so important for credit risk assessment. Furthermore, with the growth of mortgage finance, one can expect that mortgage-backed bonds will start to enter the Egyptian capital market in the foreseeable future. Critical questions that arise from this expected development pertain to how these mortgages will be packaged by their originators, how their risk will be measured, and how the securitization will be regulated by the Egyptian Financial Supervisory Authority (EFSA).

Mortgage financing is still at an early stage in Egypt, but the regulator will be faced with the aforementioned challenges before too long, and it is wise to pre-empt these problems by addressing them now. There is ample evidence from the crisis suggesting that the commoditization of mortgages and the systemic securitization of sub-prime mortgages, as highly rated securities by using synthetic credit enhancements, had disastrous effects on the financial system. The EFSA should monitor very closely how sub-prime risk is measured and priced by Egyptian mortgage companies. Perhaps a safety net that should be considered is to localize the credit circuits for mortgage provision across all governorates to ensure that the relational dimension of credit allocation is not compromised or replaced by formal credit scoring.

The rationale behind the introduction of mortgage finance in Egypt is to enable middle and low income groups to access finance to buy houses. By definition, these income groups tend to be high risk or sub-prime customers. As the mortgage market grows, it is crucial that the proper systems are put in place by the EFSA to ensure that mortgages provided to these low income groups are made on sound economic (not social or populist) grounds, and that when the time comes for securitizing these mortgages on the debt capital market, the risk is fully captured and priced rather than masked as was the case of the US sub-prime mortgage securitizations. The details of what should be done were discussed at the latest G20 summit and this topic can be addressed in a full paper, but this paper delineates (a) the transformations that are taking place, and (b) the need for significant regulatory efforts to stay ahead of these transformations to avoid the outcome suffered by financial markets of developed economies as a result of sub-prime mortgages.

4.3 Access to Finance by the Small and Medium Enterprises

A key hurdle facing economic development in Egypt is access to finance by the private sector, especially by the Small and Medium Enterprises (SME) which are essentially the engine for economic development. On that front, the CBE has embarked on a second phase of banking sector reforms in December 2008 with a primary focus on access to finance. SME provide the

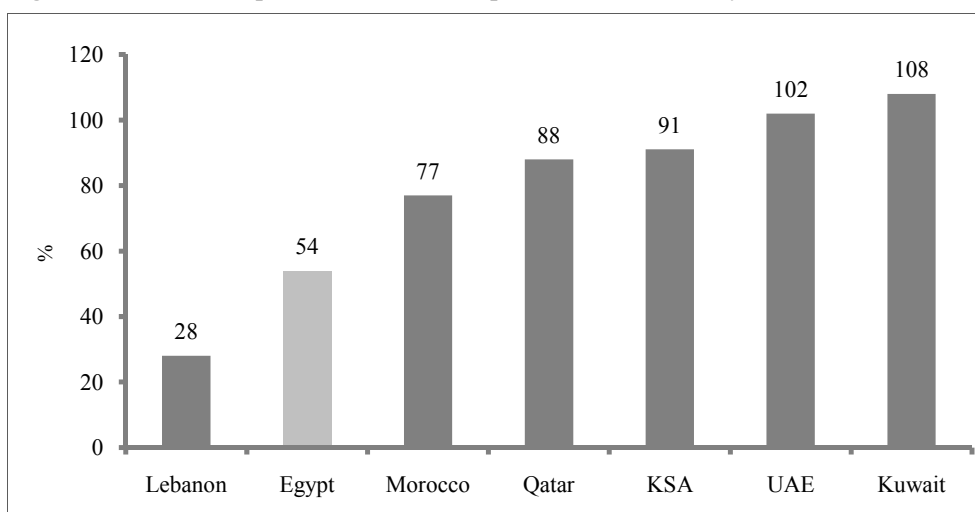
entrepreneurial and innovation backbone for the economy (El-Gamal, El-Megharbel, and Inanoglu 2001) and having access to funding is critical for their growth. In addition, SME play an important role in the creation of jobs. It is difficult to accurately depict the exact contribution of SME to employment in Egypt due to data deficiencies, but the range varies from 11 percent as reported in Mansour (2000) to 75 percent as reported in Giugale and Mobarak (1996). Despite this wide range, there is general agreement on the importance of SME for economic development.

Accordingly, a key function of the financial system in Egypt should be to avail funds to private sector SME. However, SME are plagued with a variety of problems including lack of demonstrable track records, poor management skills and absence of collaterals which cause many of them to be excluded from the formal financial system due to being *unbankable*. Under these conditions of extreme informational asymmetries, one can argue that development banks with extensive branch networks and direct knowledge of borrowers can be better suited for development in Egypt because of the need to rely on direct knowledge rather than on an arms-length approach which dominates Western economies. This is essentially dictated by the stage of development of the Egyptian economy— especially on the SME front. Arguably, this is also desirable for development because it enables transfer of knowledge in areas of planning and cash-flow analysis from the financier to the borrower by allowing the lender to be closer to the borrower and more entrenched in borrower's operations due to having to hold and monitor loans advanced to maturity rather than securitizing them.

Egypt's financial system is proving to be one of the most resilient ones across all developing countries during the crisis. This owes primarily to the regulatory setup of the system as well as the conservatism that has characterized lending decisions ever since the non-performing loans (NPLs) crisis of the 1990s. The recent establishment of the EFSA as the regulator of non-bank financial institutions should further augment regulatory capability in the financial system to ensure that the regulator is not behind the regulated entity by attracting good calibers to the regulator.

On the banking front, comparing the Egyptian banking system to its regional peers in the Arab world shows that it is stable and liquid, and therefore was largely insulated from the global crisis albeit its spread contagion effects.

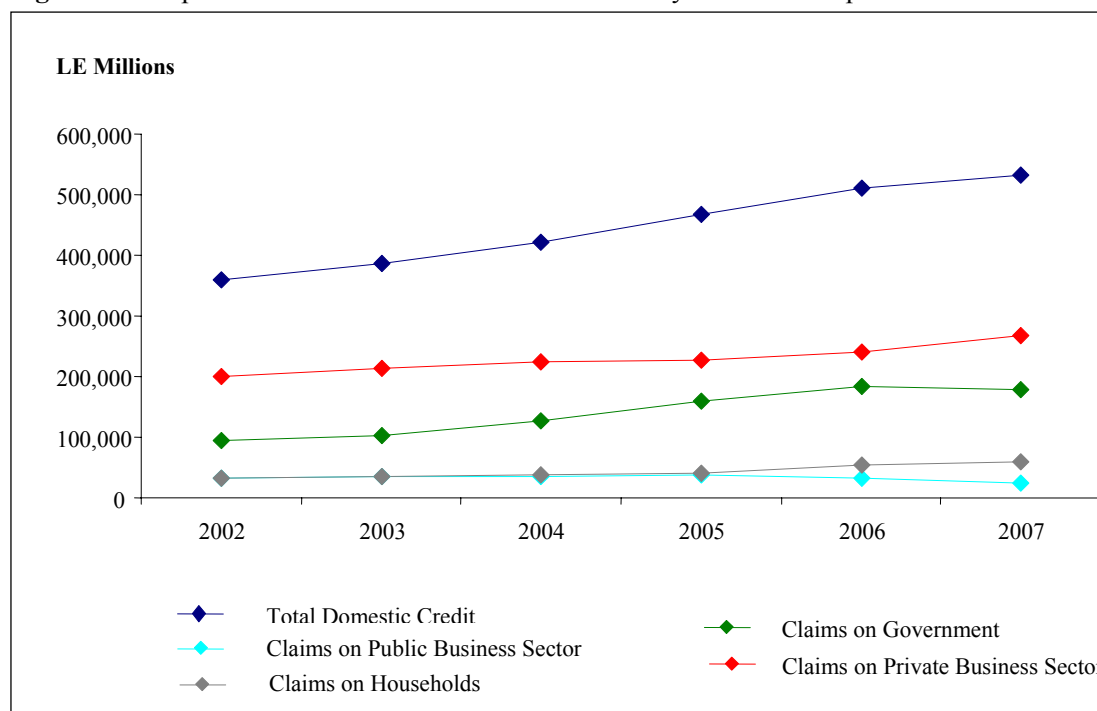
Figure 1. Recent comparison of loan to deposit ratios across key Arab economies



Source: EFG-Hermes Banking Sector Report (October 2008).

However, one of the key challenges facing economic development in Egypt has always been the problem of mobilizing savings into investments. Financial liberalization has resulted in many positive developments in Egypt, but it has not resulted in sufficient available financial capital to private sector SME; instead a large portion of bank deposits were either hoarded as cash and cash equivalents or lent to the government to finance the budget deficit. This is clearly shown in available data from the CBE, where domestic credit to the Government has grown by a compound average growth rate (CAGR) of 13.3 percent from 2002 to 2007, whereas domestic credit to the private business sector has grown by a CAGR of only 6.1 percent. However, this trend started to change from 2005 in line with the Government's reform program; domestic credit to the private business sector has grown by a CAGR of 8.5 percent from 2005 to 2007, whereas domestic credit to the Government has grown by 5.6 percent for the same period.

Figure 2. Composition of domestic credit in local currency terms for the period 2002-2007

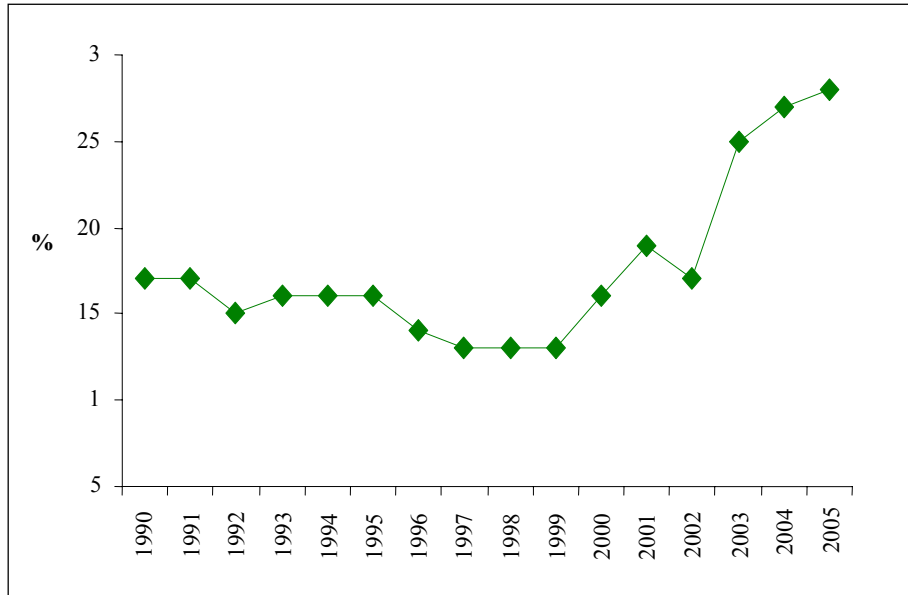


Source: Central Bank of Egypt database.

What exacerbates the problem is that SME access to the capital markets has been completely absent due to size considerations in addition to their opacity and limited disclosure capability. It is encouraging to see that in January 2009, the CBE issued a directive that exempts banks from a part of the 14 percent reserve requirement ratio, on domestic currency deposits, equivalent to the amount of SME lending to motivate banks to increase their credit allocation to SME. Furthermore, there are currently concerted efforts undertaken within the banking sector and the Egyptian Banking Institute– the training arm of the CBE– to educate SME on management and collateral compilation. In addition, banks are setting up specialized departments to investigate SME credit worth and building capacity in that regard. Furthermore, the launch of the Nile Stock Exchange (Nilex) is a promising new development that can potentially enable SME to access large pools of capital and needs to be catalyzed and complemented with other financing channels like venture capital and private equity.

The introduction of innovative financial techniques like securitization in the developed financial systems has typically been explained by the need to streamline the balance sheets of banks to enable them to advance more loans using the same capital base through off balance sheet financing structures. This is not the case in Egypt. In fact, the opposite is true given the idiosyncrasies of the Egyptian economy. Egyptian banks are sitting on large pools of cash that is primarily being invested in short-term assets and risk-free assets; data from the World Development Indicators Database show that Egyptian banks have increased the proportion of liquid assets to total assets they hold from 13 percent in 1999 to 28 percent in 2005.

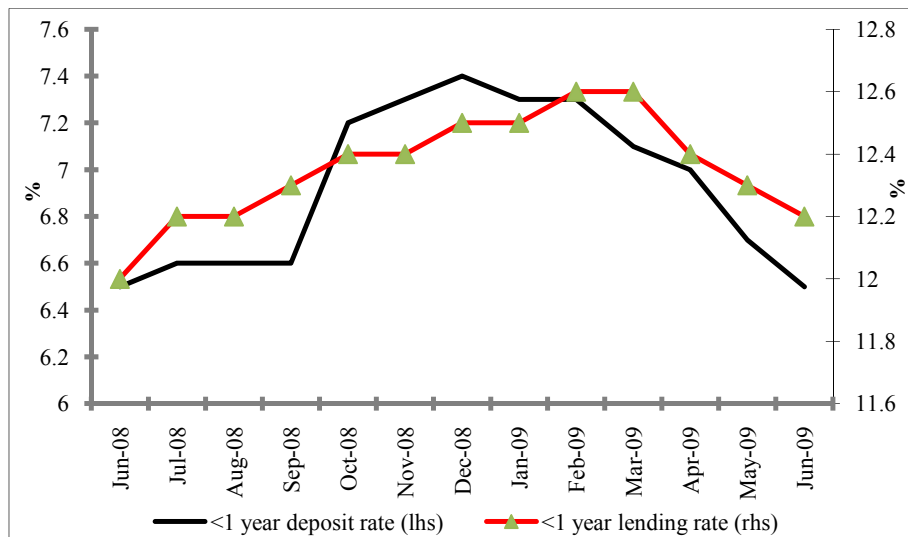
Figure 3. Time series of liquid assets held by the banking system as a percentage of total assets held by the banking system during 1990-2005



Source: Data from the World Development Indicators Database.

In addition, recent data show that the difference between lending and deposit interest rates in Egyptian banks is still high (5.7 percent), indicating that Egyptian banks continue to adopt a cautious approach to lending. This is higher than regional comparables in the GCC where the difference between lending and deposit interest rates ranges between 3–3.5 percent.¹¹

Figure 4. Time series of difference between lending and deposit interest rates in Egyptian banks



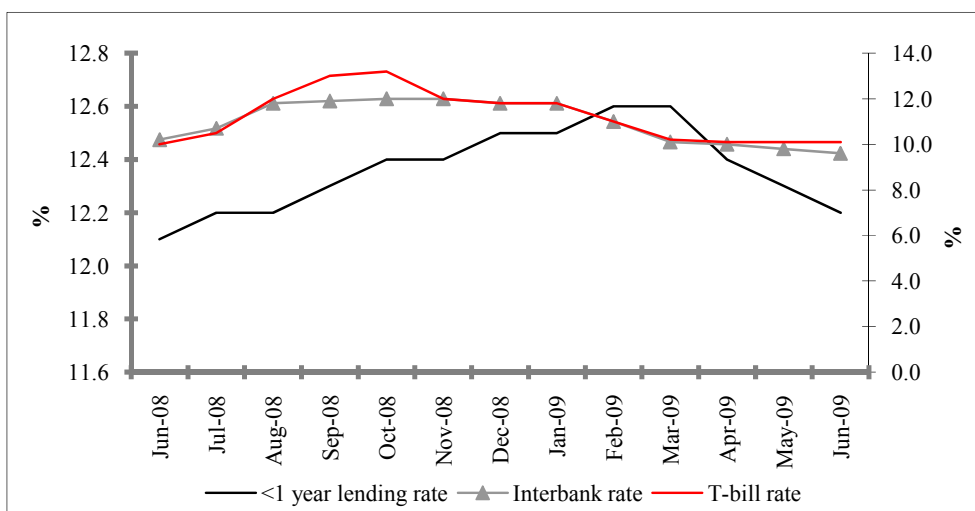
Source: Data from the Central Bank of Egypt Database and HSBC Banking Report (September 2009).

11. Source: EFG-Hermes informal estimates (2009).

Given these realities, one can argue that the key challenge is not whether modern finance is feasible and desirable, or not, for developing the Egyptian financial system. Instead, the key challenge that needs to be tackled is how the CBE can induce banks to lend more to private enterprises in general and SME in particular, and how the EFSA can prudently induce non-bank financial institutions to increase access to capital by individuals— mainly for mortgages— and SME. Indeed, a key mandate of the EFSA is improving access to finance through capital markets and non-bank financial institutions, especially by SME. To tackle this issue, one can argue that there are two important tenets that should be part of the Egypt 2030 future vision; one is demand driven and the other is supply driven. On the demand side, SME must be made *bankable* by addressing the various institutional and informational problems that prevent them from accessing institutional capital. The role of Non Governmental Organizations (NGOs) and venture capital investors in capacity building and improving corporate governance standards will be both critical and rewarding on this front.

On the supply side, the creation of incentives for banks to engage in long-term lending will be conducive; a precursor for this is building capacity in risk management functions across the banking sector. Also, the introduction of adequate risk management instruments can potentially aid in decreasing the informational asymmetries which deter banks from long-term lending. A related point is the need for measures to decrease the differential between the CBE rate and deposit rates offered by banks to make it less attractive for banks to invest in liquid assets.

Figure 5. Time series of lending rate, T-bill rate, and interbank rate in Egypt



Source: Data from the Central Bank of Egypt Database and HSBC Banking Report (September 2009).

In addition, the lending functions of banks will need to be more flexible and will need to establish dedicated SME desks that will have to be fully aware that lending to SME is very different from traditional corporate lending. There are currently some promising initiatives taking place on this front at the larger banks in response to the new CBE directive, but it is still in early days. Perhaps learning from the experiences of the so-called late developers in South

East Asia in enabling SME access to capital can be a good starting point. Progress on financial development in South East Asia largely relied on relational based approaches by banks to provide long-term capital for enterprises. The experience of these late developers can be a topic for consideration in a full paper, but for purposes of this paper it is worth noting the importance of the relational dimension of financial intermediation to improve access to finance and further financial market development in Egypt.

5. CONCLUSION

The key theoretical justification for the existence of financial intermediaries in the context of neo-classical theory of finance is based on the information theoretic paradigm: banks exist to mobilize savings into investments by providing institutional resolutions to posited transactional frictions that arise between the lender and the borrower. The principal/agent problems of asymmetric information and moral hazard are explicated as the key tenets that provide the micro foundations of financial intermediation in the neo-classical model. Over the last two decades, *modern finance* has dominated the global financial arena and the instruments of *arms length* banking have become systemically exported from developed to developing countries. “Despite the apparent sophistication of *arms-length* techniques, their results are only as good as the arbitrary empirical assumptions that ultimately support the choice of variables used in banks’ proprietary models. It appears that the decline of ‘relational’ interactions between banks and their individual customers has led to inadequate assessment of credit worthiness in recent years.” (Lapavitsas, and Dos Santos 2008). Furthermore, the need for a new approach to regulation—especially for off balance sheet financing— is now a focal point.

From a political economy of finance perspective, the setup of the financial system of every country should be driven by the problems that need to be solved and the institutional constraints of that economy. In Egypt, that problem is access to finance by the private sector in general and SME in particular. It is difficult to see the role that *innovative finance* can play in enabling the resolution of these problems given the stage of development of the Egyptian economy as well as the institutional template of the economy. Instead, the real challenge that needs to be tackled in the Egyptian financial system is how to create the financial relations, regulatory setup, information collation techniques, and risk management capabilities that can increase private sector access to credit. *Prima facie*, part of the answer seems to lie with banks, and the other part seems to lie with capacity building in the private sector and the regulatory bodies.

The activation of the mortgage market in Egypt over the last three years provides a much needed financing channel for low and middle income citizens seeking to buy real estate property. However, as this market grows and market participants increase, the EFSA will need to give careful consideration to how credit risk is identified, measured, and socialized by mortgage providers. While the introduction of the first credit bureau in Egypt is a needed step, it should be recognized that direct knowledge of the borrowers and *soft* evidence based on the relational dimension of financial intermediation should not be compromised or replaced by statistical

inference techniques in credit scoring. A key challenge that will shortly be facing the EFSA is making sure that the necessary financial relations, and complementary non-bank financial institutions develop to ensure that credit risk is not masked or passed on to unknowing third parties in a manner similar to the sub-prime mortgages crisis.

The current crisis is a case in point and illustrates, too clearly, what can happen when the *modern* financing institutions and processes of contemporary capitalism malfunction. “The question that arises most forcefully now is not so much about the end of capitalism as about the nature of capitalism and the need for change. The crisis, no matter how unbeatable it looks today, will eventually pass, but questions about future economic systems will remain. Do we really need a *new capitalism*, carrying, in some significant way, the capitalist banner, rather than a non-monolithic economic system that draws on a variety of institutions chosen pragmatically and values that we can defend with reason? Should we search for a new capitalism or for a new world?” (Sen 2009). The answers to these questions are being vigorously debated across the world. However, “what is needed above all is a clear-headed appreciation of how different institutions work, along with an understanding of how a variety of organizations– from the market to the institutions of the state– can together contribute to producing a more decent economic world” (Sen 2009). For Egypt, the crisis should sound the alarm bells and trigger another look at the financial system’s design and regulation with financial development– not innovation or modernity– in mind as the priority.

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