Regulation: Connecting with the Financial Sector

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Executive Summary

Housing finance is a booming industry globally and especially in many emerging markets. The sector's risk environment and available risk management options have improved due to disinflation, the development of funding markets, partial deregulation, the IT and communications revolution, and the globalization of financial services. Yet, new risks have emerged – in particular house price risk – and access for low-income households remains at a nascent stage in most markets.

Financial regulations and public interventions must be designed in a way that support a multifacetted strategy for the provision of access to housing finance: this should include a push for greater institutional diversification and specialization, product innovation, optimal mobilization of collateral, conducive consumer information, protection and education mechanisms, adequate borrower screening and monitoring mechanisms including microfinance, technological and scale improvements, and greater access to the capital market, where many investors have greater appetite for risk than banks.

This paper identifies a tendency to overregulate and overengineer commercial banks. Commercial banks' reluctance towards low-income lending creates high access costs and cartel-style market structures in emerging markets. Lending institutions should therefore only be subjected to lighter bank regulation or in charter competition with commercial banks, e.g. if solely funded in the capital markets.

This paper also finds that regulatory limitations or biases of the mortgage product menu are often unaffordable. Classical examples include the regulatory requirement for fixed-rate lending and prohibitions against 'inflation-proof' lending instruments. Issues arise also with strict usury ceilings and foreclosure protections, which often drive lenders into informality, resulting in even lower consumer protection. A better approach, from the perspective of low-income households, would prioritize gradual improvements in protections over informal sector practices rather than optimizing standards for the smaller formal sector, which is beyond the reach of the poor.

Thirdly, recognizing the mobilization of real estate collateral as a unique access instrument, the paper argues for reduced emphasis on this point and for its inclusion into the broader modern concept of credit risk assessment supported by the IT revolution. Many collateral-related regulations are ill-suited to an emerging market context, which is characterized by imperfectly structured and highly cyclical property markets. Emerging markets should transition away from bricks and mortar to support for new empirical techniques – keyword Basel II. This is wholly consistent with a renewed focus on relationship approaches – such as microfinance or local banking – which are invaluable data mines about low-income household behaviour and risk exposure.

Turning to public support strategies for low-income housing finance, the paper sends two messages: first, policymakers should avoid replicating unsuitable top-down development approaches, such as the creation of housing banks, from the developed world. Rather they should develop their own approaches, following models such as those of Mexico or Thailand. In particular, policymakers should help bottom-up lenders access necessary data, risk management and transfer technology – all issues that were addressed in developed countries through the market, but over a time period of a hundred years or more. Second, despite its low political visibility, officials should not neglect badly needed public investment in the mortgage market's infrastructure.

Investment should promote functioning land markets, transportation infrastructure, financial education of counsumers, access to court and redress systems, access to modern communication and thus e-finance, and access to land registers and consumer databases. These are among the public investments that promise greater social returns for low-income housing provision than direct interventions.

Acknowledgements

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List of Abbreviations

BIS	Bank for International Settlements
CFF	Credit Foncier de France
DSC	Debt-service-coverage (ratio)
FICO	Fair Isaac & Co
FHA	Federal Housing Administration (United States)
FSA	Financial Services Authority (United Kingdom)
GHB	Government Housing Bank (Thailand)
GMAC	General Motors Acceptance Corporation
GSE	Government-sponsored enterprises (United States)
HDFC	Housing Development Finance Corporation (India)
HFC	Housing Finance Company (India)
IMF	International Monetary Fund
IT	Information technology
KfW	Kreditanstalt für Wiederaufbau
LTV	Loan-to-value (ratio)
MBS	Mortgage-backed security
MFC	Mortgage finance company
NGO	Non-governmental organizations
NHFC	National Housing Finance Corporation (South Africa)
SBPE	Sistema Brasileiro de Poupanca e Emprestimo (Brazil)
SHF	Sociedad Hipotecaria Federal (Mexico)
SOFOL	Sociedad Financiera de Objectivo Limitado (Mexico)
U.K.	United Kingdom
U.S.	United States
USAID	United States Agency for International Development

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1 Introduction

1.1 Emerging market housing finance – a changing risk profile

Housing finance is **a booming industry** globally. This is true for developed markets since the 1990s and – as Table 1 covering research of the BIS shows – more recently for developing countries, now frequently dubbed 'emerging markets'.[1]

A key reason for this development is that many countries in the past two decades have started to address the **main risks and infrastructure constraints** for mortgage finance, which in the past negatively affected both demand and supply:

- ***Macroeconomic risk*** –the global high inflation phase of the 1970s and 80s depressed the availability of long-term capital and generally undermined the development of financial markets. Housing finance emerged only with a certain time lag after **successful disinflation,** since it was followed by a phase of high real interest rates that lasted well into the 1990s. In many emerging markets, this period of high real interest rates lasted well into the current decade (e.g Poland); in some it is still ongoing (e.g. Brazil, Turkey).
- ***Interest rate risk.*** The most successful emerging mortgage markets have, simultaneously with stabilization, developed their **domestic financial markets**, which in many cases included the establishment of mortgage-related securities: salient examples include Chile, Mexico, Colombia, Malaysia, Korea, the Czech Republic and Hungary.[2] Reliance on foreign capital imports, in contrast, carries the risks of setbacks - such as in June 2006 when Turkish mortgage rates almost doubled within two weeks after turmoil in the forex market. It appears that only deep domestic financial markets – always in combination with sound macroeconomic policies – can guarantee a sufficiently stable price for long-term capital.
- ***Credit risk and access.*** As late as the 1970s, even most developed country mortgage markets were underdeveloped in the sense that regulations often curbed mortgage lending, excessively standardized products, imposed high asset quality criteria and often simultaenously limited banks' ability to enforce mortgage collateral. Such inadequate and extreme regulations imposed severe credit constraints on households.

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[1] I use the terms synonymously here to stress the increasing integration of global mortgage markets.

[2] In developed markets, the picture is more mixed. In Western Europe, Spain and France reached significantly higher market penetration with a capital market development strategy, while Portugal, Ireland and the U.K. reached significant growth rates mainly based on the greater mobilization of deposits.

The 1980s brought about a **regulatory 'big bang'** for the mortgage industry, during which the U.S. and the U.K. and then later other European countries removed many of these regulations. While the deregulation had side-effects in in the form of additional credit risk - especially in the U.K. where the absence of long-term fixed-rate instruments caused vulnerability to macroeconomic shocks of the new borrower groups brought into the market - it appears overall to have been successful in expanding the access, diversifying the product menu and enhancing competition.

Table 1 The boom in housing credit in emerging markets

Composition of bank credit[1]

	Housing credit			Consumer credit			Business credit		
	1994	1999	2004	1994	1999	2004	1994	1999	2004
Latin America									
Argentina		18	7		15	7		38	17
Chile	13	17	21	8	9	12	79	74	67
Colombia		7	11		15	14		56	39
Mexico	17	16	9	7	4	13	62	36	28
Venezuela		4	1		18	7	44	55	47
Asia									
India			10			12		7	7
Hong Kong SAR	7	15	15	2	3	3	86	76	73
Singapore	14	20	26	13	12	15	60	51	39
Indonesia		5	6		7	18		60	37
Korea		9	33		18	17		69	47
Malaysia	10	18	28		8	16		64	45
Thailand	9	7	10	4	3	6	64	71	68
Central Europe									
Czech Republic[2]		10	16		4	5		41	37
Hungary		3	17		6	8		62	46
Poland		2	10		21	23		44	35
Israel	0	0	8	15	10	9			
Turkey	0	0	2	2	3	6	76	58	39

[1] Of commercial banks. As a percentage of total domestic credit of commercial banks. [2] The data in the middle columns refer to 2002.

Source: National data (questionnaire).

Source: BIS (2006a, p.15) based on national questionnaire data. Note : Declining housing credit in Mexico explained by increasing role of non-bank financial institutions – see discussion below. Declining housing credit in Argentina explained by macroeconomic crisis in 2001 and the subsequent default crisis.

A large number of emerging markets in the meantime worked on creating, strengthening or liberalizing their legal and regulatory system for mortgage finance. International organizations, such as the World Bank Group, operated in parallel in dozens of countries to further that goal. Many of these countries liberalized outdated lending constraints, establishing a **new target group** firmly represented in commercial bank portfolios: consumers! Table 1 shows the secular decline of business credit. The discovery of the consumer was furthered by bank privatizations and increasing alternative capital market funding options for corporations.

- The **IT and communications revolution** and the **globalization** of trade **in financial services** are two infrastructure trends that are just starting to reveal their power. They create numerous new options to deal with consumer-related data and risk. These options,, in turn, give rise to new products, new risk management systems, and attract investment capital to the last corners of

> emerging markets. With this tailwind, the mortgage industry, historically one of the most parocchial branches of financial services, is today starting to go global.

Despite this progress, increased availability of housing finance in emerging markets has not universally created better access to housing; it has often added to **house price pressure**, resulting in little affordability improvement for those with access to finance, a deterioration of affordability for those without access, and substantial additional risk. A reasonable strategy to improve access to housing, as opposed to housing finance, needs to address inefficiencies in the housing supply chain – from land markets via planning systems to building codes. Such comprehensive strategies are still notoriously absent in most developing countries, where local governments and public land owners face institutional development challenges.

New risks for emerging market housing finance could also arise from the speed at which markets are expanding: in particular, banks have **greater access** to new population strata in an often information-poor environment with limited and untested servicing techniques. Such issues are addressed now at greater scale in 'subprime' markets in developed countries. However, many preconditions of such 'emerging' markets within developed countries are not yet met in developing countries.

Exceptions here are bottom-up approaches such as microfinance and cooperative and savings banks, which frequently have a **reverse access** problem of insufficient connection to apex institutions providing interest rate risk and macroeconomic/house price risk protection.

A particularly pressing source of risk in emerging markets is the delay in creating a sufficient **infrastructure for the mortgage market**, from public registration systems, credit bureaus via consumer information and protection to enforcement mechanisms via courts and non-judicial alternatives. An important element here is also the quality and implementation of financial regulations.

1.2 Structure of the paper

This paper discusses **approaches and best practices** in deepening and stabilizing access to housing finance in emerging markets through regulation in the presence of the described old and new risks.

The issue of conduciveness of **laws and regulations** to low-income housing finance in the developing world has so far been addressed primarily by practitioners in international and bilateral development organizations. For instance, Butler (2003) and Gwinner (2006) discuss the legal and financial regulation obstacles and issues confronted by the World Bank housing finance group that started to become fully operational only in the late 1990s.[3] For the financial sector as a whole, the New Institutional Economics literature that emerged in the 1990s highlighted the implications law and regulations inherited from former colonial powers on the efficiency of financial markets in emerging markets, and stressed the importance of reforms.

[3] Other important players in legal-regulatory development of housing finance in emerging markets are bilateral agencies USAID and KfW.

With more international capital becoming available for the sector through the globalization of the financial services industry, numerous emerging markets are joining the bandwagon of reform pioneers, such as Malaysia and Mexico. Emerging markets are also becoming more actively involved in the development of global legal-regulatory standards, e.g. the Basel II bank regulations, as well as institutions that help to set such standards, such as BIS or IMF.

In the meantime, the role of government in **supporting access** to housing finance is changing gradually from copying intervention approach hes – in particular in the 1950s and 60s many developing countries simply adopted developed country models of housing banks and agencies – to a local enabling approach to the private sector that promises greater efficiency and finetuning. This trend is assisted by an acceleration of the activities of 'bottom-up' financial institutions in emerging markets, initially primarily promoted by NGOs and now also supported by many development organizations and governments. Moreover, international investors are increasingly willing to take emerging market housing finance risks, including in some cases on the low-income side.

The paper takes stock of these trends in both areas – regulation and public support - and offers recommendations of the most promising strategies for emerging markets to deepen access to housing finance. Section 2 focuses on issues in the design and execution of financial regulation that enable access to low-income housing. The discussion includes consumer protection regulations, which in particular in emerging markets often blend with financial regulations. One example is Islamic finance rules. Section 3 discusses lessons from past mistakes in public support strategies and promising examples for policy development. Section 4 draws conclusions for the emerging market housing finance policy debate.

2 Regulations at crossroads

"If I seem unduly clear to you, you must have misunderstood what I said."

Alan Greenspan

"The first thing we do, let's kill all the lawyers."

William Shakespeare

2.1 Introduction

Sustainable greater access to housing finance - in both developed and emerging markets - is most likely to be brought about by a combination of:

- institutional diversification and specialization,
- product innovation, along with reasonable risk protections,
- optimal mobilization of collateral,
- conducive consumer information, protection and education mechanisms,
- sophisticated borrower screening and monitoring mechanisms such as microfinance, group relationships and scoring,
- technological and scale improvements, and related to this

- increased access to the capital market, which offers investors with a greater appetite for risk than banks.

I argue that financial sector regulations and consumer protection rules are designed in ways that are frequently not conducive to further a multifacetted access strategy, and sometimes even outright counterproductive. This is partly due to their general philosophy – providing maximum protections to depositors or consumers with little regard to overall development or stability issues – and partly due to inconsistent and unimaginative implementation. Emerging markets have adopted many developed market regulations with little critique, and where they are autochthonous, as in the case of Islamic finance, they seem to suffer from similar conflicts and inconsistencies to their developed market counterparts.

The section starts with a discussion of the environment for institutional diversification and specialization, or charter competition, which is anathema to many banking regulators. It then discusses whether mortgage-lending specific rules defining loan instruments and the use of real estate collateral are appropriate to further access. I broaden the perspective again to discuss the technically separate consumer information and protection policies that are in practice often interwoven with product and collateral-related regulations. In the subsequent section, the question is raised of how one of the main access issues – the information opacity of low-income households – can be addressed by the legal-regulatory system. The chapter ends with a discussion of whether financial regulation in the classical sense, by government, or indirect regulation by the market is the preferable approach for emerging housing finance markets.

2.2 Competing charters – asset and liability

Types of charters in emerging market mortgage finance

Mortgage finance globally is delivered by many different types of financial institutions, most of which operate under different sets of financial regulations, or **charters**. The most important are:

- Commercial banks (and frequently also insurers),
- Double-bottom line banks, such as savings and co-operative banks, and more recently also microfinance banks, that operate under voluntary or mandatory mandate restrictions,
- Mortgage specialists, including special banks, special insurers, finance companies and agencies, that operate under voluntary or mandatory operational specialization and sometimes additional mandate restrictions,
- Diverse groups of corporate distributors, from brokers via correspondents to telecom companies, etc.

Over the past decade, a certain consensus has emerged that “conventional” **commercial banks** are either unable or too slow to provide access to finance in emerging markets, providing room for other bank and non-bank financial institutions lending to grow. Data provided by the BIS on the share of credit delivered by commercial banks in emerging markets support this perspective, although the changes seem to be slow and not uniform.

Table 2 Share of credit delivered by commercial banks and other banks and non-bank financial institutions

Real aggregate credit[1]

	Average growth rate		Share in aggregate credit					
			Commercial banks			Other banks and non-bank financial institutions		
	1995-99	2000-04	1994	1999	2004	1994	1999	2004
Latin America[2]	3.6	4.5	78	69	68	22	31	32
China	17.1	13.3	100	100	100	0	0	0
India	6.1	14.6			97			3
Hong Kong SAR, Singapore	1.4	3.4			97			3
Other Asia[3]	–0.3	4.7	62	70	74	38	30	26
Central Europe[4]	9.6	8.1		96	83		4	17
Total[5]	7.8	9.6	86	88	88	11	12	12
Memo: United States	*10.1*	*3.3*	*23*	*17*	*18*	*77*	*83*	*82*

[1] Referring to domestic credit by commercial banks, other banks (excl central banks) and non-financial institutions (questionnaire). In cases where data are not available from the questionnaire, they have been taken from the IMF, IFS; deflated using annual percentage changes of the consumer price index; regional averages calculated using 2000 GDP PPP weights. [2] Argentina, Brazil, Chile, Mexico, Peru and Venezuela. [3] Indonesia, Korea, Malaysia, the Philippines and Thailand (columns 3 to 8 except Indonesia). [4] Czech Republic, Hungary and Poland. [5] Countries shown plus Israel, Russia, Saudi Arabia, South Africa and Turkey (columns 3 to 8 except Indonesia, Israel and Russia).

Sources: IMF; national data.

Source: BIS (2006a), p.15. Note: for additional notes see source.

Peachey (2006b)[4] identifies 'bottom-up community based' or **'double bottom line' banks**, such as savings and postal banks, co-operative and microfinance lenders, as the key class of bank distributors that can be credited with providing access to financial services for low-income households. Savings/postal banks alone are estimated to offer 1.1 billion in savings accounts globally, compared to 35 million by microfinance lenders and 50 million by co-operative banks. Yet, savings and postal banks are in many markets commercial-bank lookalikes, in particular in Russia, China and the former British colonies of Africa and Asia, where they offer similarly limited access to credit. Cooperative and microfinance credit institutions start to fill the gaps in these countries. Generally double bottom line lenders are deemed to play an increasing role in low-income housing finance, although exact figures are hard to obtain.[5]

Mortgage specialists, including both specialized banks and non-bank lenders, are a second class of institutions that promises to offer better financial access to low-income households than commercial banks. From an access perspective, finance companies have developed a specialized franchise that has often focused on subprime or low-income markets, including in emerging markets. The case of Mexico's housing finance market development is insightful in that regard.

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[4] Summarizing the World Bank/Brookings conference findings of May 2006.

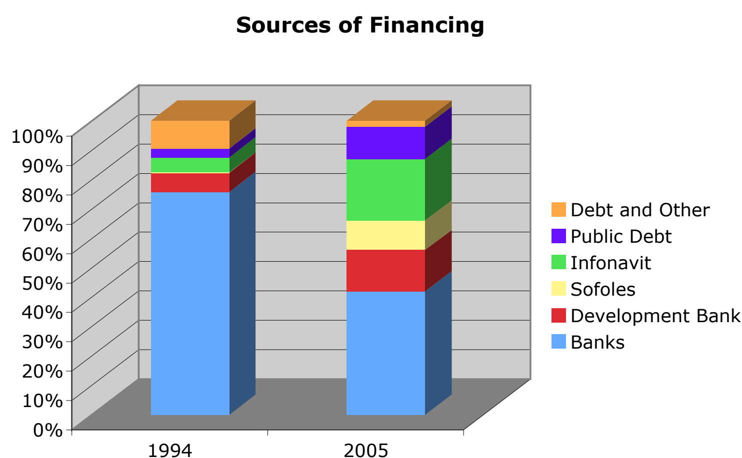
[5] See Hassler (2006).

The emergence of special-purpose housing finance companies in Mexico after the Tequila crisis

In late 1994, Mexico was hit by a major devaluation of the currency that translated into interest rate increases, a subsequent property price collapse, spiraling mortgage defaults and the withdrawal of commercial banks that had so far dominated the mortgage market (see figure 3).

The resulting coverage gap, especially for moderate-income housing finance, was filled through the emergence of special-purpose finance companies, called SOFOL in their Spanish abbreviation. SOFOLs are nonbank lenders that fund themselves through long-term loans provided by the federal housing finance agency SHF, and today as well through bonds and securitizations. SHF is currently developing a centralized bond issuance model together with Soros Fund Management.

Figure 3 Changes in the supply structure of housing finance in Mexico



Source: Campos (2006).

The funding support relieved SOFOLs from liquidity and interest rate risk management issues and allowed them to focus on the lending side. Over the past decade, an origination and servicing platform was built that allowed for lending at very low default rates (see Fitch (2006a)). Loans are moreover provided both to consumers and construction companies, which addresses the dearth of developer finance in Mexico.

New downmarket programs have been launched recently in cooperation with Infonavit, the wage-tax funded agency that also modernized their operations actively in past years. Infonavit loans now piggy-back with SOFOL loans and thus provide both credit protection for SOFOLs as well as greater outreach through lower downpayment requirements. Fitch estimates that SOFOLs reach approximately a quarter of Mexican households, with incomes over 800 USD/month, while Infonavit and other agency lending reaches another quarter with incomes over 400 USD/month.

Porteous (2006) adds the aspect of **new distributors**, so-called access points, to the discussion. Indeed, banking through correspondents - such as merchants, telecommunication companies/IT providers and other firms – may add to both commercial bank and other investor distribution. For instance, as of 2005, Brazil had 50% more correspondents than bank branches, and correspondents have been mainly responsible for delivering access to every Brazilian municipality. Other important new access providers arise from the rapid global disintermediation trend in finance, for instance that loan brokers or advisors operate as loan originators.

Competing and integrated charters

If greater access requires a differentiated institutional framework, where does this leave traditional banking regulations? **Two alternative strategies** are available that are **consistent with greater access**. The first of these is the integration cum liberalization of banking regulation in order to embrace new access mechanisms

offered by new types of financial institutions. The second is regulatory segmentation and competition between the different classes of financial institutions.

Since the creation of **mortgage specialists** in the mid 19th century, regulatory segmentation, in many cases also direct competition, with commercial banks has been constantly present in housing finance. Until very recently, most specialists were regulated under a 'narrow banking' approach, i.e. long-term finance was specifically designated to be provided by these institutions alone, typically under specially defined access conditions to capital markets through long-term deposits or bonds.

Deregulation and the increased mortgage market entry of non-specialist banks and other institutions have pushed many specialists either out of the market or under the umbrella of commercial banks. Still, important specialists remain in the market - especially in more narrow functionalities. Examples include the U.S. government-sponsored enterprises (U.S. GSE) Fannie Mae and Freddie Mac that act as capital market guarantors, German Bausparkassen supplying the deeply regulated Bauspar contract, or British building societies.

Special mortgage charters have advantages and disadvantages over the banking charter with regard to enabling access. One advantage, for example, is that the U.S. GSE can sell their securities to U.S. investors without the usual corporate counterparty exposure constraints. On the one hand, this flexibility has pushed the U.S. GSEs' enormous growth, which has raised widely concern over their financial stability. On the other, it certainly also has helped their mandate performance in providing more middle-class credit, especially in the form of fixed-rate mortgages. Bausparkassen demonstrate a disadvantage of special mortgage charters, as they suffer from severe regulatory lending and funding constraints that conflict with a low-income focus. In order to correct regulatory imbalances, the trend in recent years has been to replace special charter regulations through special loan or funding product regulations, or at least to treat special charters more like banks.

Of the **'**double-bottom line' banks, in particular **savings and postal banks** are not only frequently subjected to special banking charters, but also operate under an explicit 'social contract' with government. Hence, double bottom line means in a quid-pro-quo also **dual regulation.** For example, savings banks in Europe are generally subjected to mandate regulations in exchange for subsidies. The efficiency of such permanent dual regulation schemes is debatable (see also Section 3). As far as financial regulations are concerned, for historical reasons savings and postal banks tend to be more constrained in the low-income mortgage sector; an example being the severe constraints imposed on the U.S. Savings & Loans in the 1990s due to their lack of sustainable funding sources.

A crucial special charter avenue for low-income mortgage finance is bond-issuing finance companies. These companies fall primarily as issuers of public debt under securities and exchange regulations, and not under banking regulations. Falling out of the ambit of most banking laws that focus on protecting depositors, **finance companies** are very lightly regulated concerning their operations and in turn tightly **controlled** by their capital market investors or through rating agencies. SOFOLs, Spanish MFCs, U.S. finance companies or Indian HFCs have been able to introduce in this way a new target group focus and new products into their respective markets, and, thus, often helped to break up price and distribution cartels of established banks. Yet, with the 1998 crisis of Long Term Capital Management, a finance company funded mainly through banks, concerns over the indirect stability implications of the

bond-issuance model have arisen. These have prompted bank regulators to push for greater consolidation of finance companies into the banking charter and even an expansion of bank regulation coverage to finance companies.[6]

These examples would suggest that, *in the long-term,* a **liberalization of bank regulation** and the eventual **integration** of financial services regulation across all supplier classes of mortgage lending, rather than the renewed creations of special charters, should be the most promising avenue for striking a balance between safety, competition and access.

What should be avoided from the access perspective is an integrative treatment *without* liberalization. In that regard, the relatively young **microfinance** universe takes the banking regulation 'light' route, ensuring integrated coverage of their institutions to allow better access to capital - yet at implementation cost levels affordable to the institutions and their clients.

Gallardo (2002) analyzes inter alia the regulatory framework for microfinance institutions in the Philippines where banking regulation requirements were adjusted (capital regulations, loan loss provisions) or reduced (minimum capital requirements, accounting and auditing costs) in order to meet the specific constraints of microfinance institutions. Other regulation issues at the time remained to be addressed, such as universal coverage of deposit insurance schemes. Due to the heterogeneity of microfinance institutions, the tailoring of banking regulations is a time-consuming process. Yet, it is one that promises strong benefits for the development of the industry and the outlook for a largely regulatory-arbitrage free relationship with banks.

A model of **substituting special charter by special product-focus** is the regulated mortgage contracts of the British FSA. This approach binds any loan originator and servicer, including brokers and correspondents which in most markets are not regulated at all, to a certain set of financial and consumer protection regulations. In the emerging market world, Brazil has gradually adopted a similar liberalization-cum-coverage-extension approach by allowing banks to operate with correspondents when bank branches are not available (1999), eventually liberalizing correspondent relationships to non-banks in 2003. Also, India since 2006 allows banks to appoint microfinance institutions and post offices as business correspondents for inter alia small deposit-taking.[7]

2.3 Standardized products or complete markets?

Protecting against macroeconomic risk

Macroeconomic circumstances in most emerging markets have significantly improved since the hyperinflation phase of the 1970s and 1980s As figure 4 demonstrates, however, they continue to generate significant **interest rate shocks**. When regulating mortgage instruments, governments need to strike a balance between valid concerns about consumers' vulnerability to future interest rate shocks and the deep lack of

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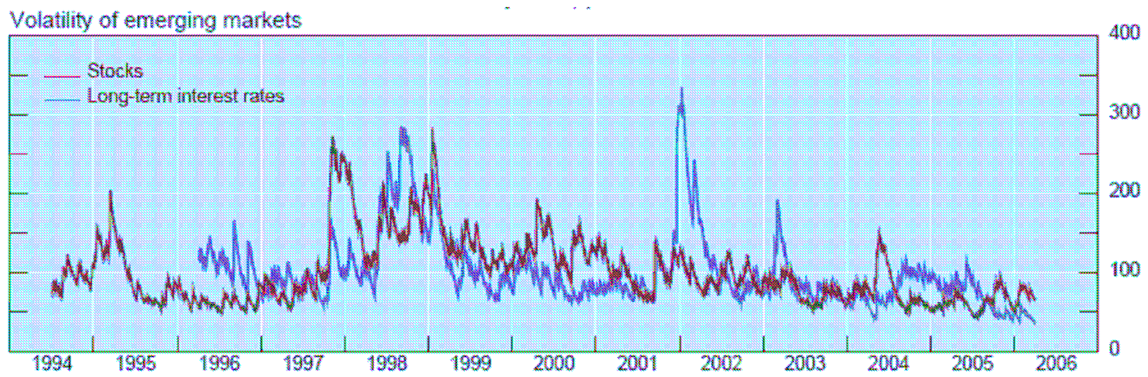
[6] An example would be the EU Banking Codification Directive of 2000, amended in 2006, that defines finance companies that fund themselves through permanent issuance of public debt as banks.

[7] See Porteous (2006)

affordability of precisely those mortgage instruments that offer the maximum level of protection against such shocks.

Figure 4 Volatility of long-term interest rates and stocks in emerging markets



Source:BIS (2006).

Financial regulations, due to their focus on absolute minimization of default, have in this vein frequently carried a **bias in favor of maximum interest rate risk protection** through promoting or even requiring fixed-rate lending. The U.S. is the most prominent developed market with a regulatory bias in favor of fixed-rate lending through the restrictive purchase policies of Fannie Mae and Freddie Mac. These have been transferred to some emerging markets such as Mexico and the Philippines. Also, emerging markets dominated by national housing banks (see Section 3) have tended to develop a fixed rate bias. Many Islamic countries in addition interpret fixed-rate lending as a religious demand, serving consumer protection purposes indirectly.

In volatile interest rate environments, such policies create severe **maturity mismatch risk** for lenders: for instance, in Iran, which together with Libya has the strictest Islamic finance regulations, only fixed-rate lending is permitted while deposit interest rates are variable, payable in form of a lottery. More importantly, at interest rate levels of between 15 and 25%, fixed-rate loans are simply unaffordable.

A second crucial question from the perspective of affordability in a situation of macroeconomic vulnerability is **amortization standards**. At interest rates exceeding the 10% threshold, loans that nominally amortize from the beginning lead to initial debt-service-to-income coverage ratios (DSC) in excess of tolerable levels: for example, in Iran, admissible initial DSC ratios at rates of 15-25% p.a. are 50%, versus an industry standard in developed markets of 35%.

The main strategy to mitigate the resulting high default risk is to allow for zero or even **negative amortization**, i.e. capitalisation of principal and even interest payments into the balance of the loan for later amortisation. An important substrategy is to accept foreign-exchange denominated lending, which means accepting the expected devaluation of the currency as an implicit automatic mechanism to create negative amortization of the loan balance in local currency.

Many emerging markets apply a plethora of regulatory barriers against such instruments, in particular prohibitions or policy biases against foreign-exchange denominated lending and bans on negative amortization (e.g. many Islamic countries). In Latin America, by contrast, financial systems have learned to live with high interest rates and regulations have been adjusted to allow for negative amortization. The most popular product is price-level adjusted mortgages, which capitalize the inflation

component of the interest rate into the balance of the loan and charge a real interest rate over that balance.[8]

Even in developed markets there is regulatory bias against more affordable products, often with severe detrimental consequences, as the example of the U.S. shows. Here, the government-sponsored enterprises Fannie Mae and Freddie Mac, based on their internal regulations, serve only a single product in the market – the most expensive one, prepayable 30 year fixed-rate mortgages. As both housing prices and the costs of these mortgages have increased recently, the U.S. has seen an explosion of 'non-traditional' mortgages – adjustable-rate, frequently uncapped; zero or negative amortization – that have significantly increased credit risk in the mortgage market.

For low-income borrowers, more affordable products thus remain a double-edged sword, and it is crucial to develop a reasonable risk protection strategy, for instance protecting against the possibility of devaluation in the case of forex loans or a significantly stronger price than wage or house price increase in the case of price-level adjusted mortgages. The key principle here should be that borrowers should not bear the full **downside risk of a shock**: one approach, increasingly adopted in the U.S., which is experiencing a surge of negative amortization products, is to demand a limit to the maximum outstanding loan in local currency to be set in the contract. A typical level practiced in the U.S. would be 20%. In an environment with strong house price inflation, higher levels could be acceptable.[9]

Limiting negative amortization or interest rate shocks through **caps** ex ante may be a risky strategy for some lenders, but it could be preferable to the alternative of court interventions in favor of consumers *after* a shock has happened. In Colombia, for instance, in 1999 the mismatch between the price index used and the house price index became so large that the Supreme Court required the ex-post re-indexation of the entire mortgage portfolio of the country, with subsequent significant losses for lenders.

The case of Turkey, a secularized Islamic country, reflects the attempt to strike a balance between affordability and consumer protection concerns when liberalizing the product set.

[8] Decreasing in importance, but still of some relevance, are 'dual-indexed' mortgages, which let the balance due grow with the price index while linking the installments payable to a wage or other index more closely matching affordability than the price index. While minimizing affordability risks for the borrower, such instruments carry the risks for the lender of not leading to full amortization within the loan maturity. That mechanism has been strongly abused politically: an example being Brazil, where a signficant portion of the public debt (approx. 10% of GDP) was caused by principal outstanding at the maturity of such loans that had to be financed by the government.

[9] Any risk protection approach should also entail advanced risk disclosure techniques to consumers, such as asking forex lenders to add the swap rate that reflects expected currency devaluation to the interest quote. Such enhanced disclosure is often difficult to communicate to consumers, though, and generally does not protect against downside risk.

Liberalizing the housing loan product set in Turkey

The 2001 macroeconomic crisis in Turkey led to extreme interest rate and default levels of housing loans, of which many were adjustable-rate. Subsequent to the crisis, the government decided to abolish adjustable-rate loans altogether and to permit henceforth only fixed-rate lending.

In the wake of this decision, the limited product range imposed problems on both lenders and consumers. Lenders that lacked access to long-term fixed-rate funding in Turkish Lira either incurred large interest rate mismatches or had to resort to swapped Euro or USD-Funding, which rendered them dependent on foreign counterparties. Due to the funding risks involved, maturities shortened to 5-8 years – the additional amortization burden accumulated with interest rates in the range of 15-20% and rendered housing loans unaffordable.

At the same time, Turkish borrowers, remembering vividly the 30% devaluation of the Turkish Lira in 2001, were loath to take up loans in foreign currencies - a strategy to address the affordability issue that is used heavily in most emerging markets.

As interest rates declined during 2004 and 2005, the Turkish government decided to reform the housing finance sector and inter alia liberalize the mortgage product range while introducing at arms length consumer protection rules. The new Housing Finance Law allows adjustable-rate loans, however, their rate adjustments have to be index-based and an interest rate cap needs to be offered over the initial 3 years of the loan. The specific cap's levels relative to interest rates are not statutorily defined in order to keep the additional costs of the regulation limited. Yet, they must be advertised with the rate and will be monitored by the Central Bank, which will be empowered to intervene should the differences between rates and caps offered become too wide.

While discussing liberalization issues from an affordability angle, it should be noted that the reverse problem, the **absence of protections** offered by fixed-rate mortgages, is a pressing issue in many emerging markets, including most of the British Commonwealth and China. These financial systems often rely on building societies funded by short-term depositis and are only gradually starting to create fixed-rate mortgages. Regulation may help to create a more complete market here, too, in particular the type that provides benefits for the lower default risk of fixed-rate loans (e.g. lower capital requirements).

Access vs. usury rules – an antagonistic debate

There are two main **conflicting concepts in consumer protection**: the Rawlsian, which considers the least lucky individual's outcome to be the social outcome, and the Benthamitian, which assesses social outcomes rather in an additive individual utility sense where the individual's outcome carries less weight. John Bentham's pamphlet "In Defence of Usury", written in 1789 in a social situation comparable to many emerging markets today, pushes his argument to the limit.[10]

The question of **what *are* usurious interest rate levels** is today, as in history, the key to the debate for low-income housing finance, and in particular to the microfinance industry that operates with small loan volumes. In a modern formulation, the main idea of usury regulations would be to limit default risk arising possibly in a self-fulfilling fashion from high interest rate levels. The U.S. subprime mortgage market that arose after the Reagan era deregulations of state usury ceilings shows both

[10] As a rule of thumb, the Benthamitian school, most popular in Anglo-Saxon countries, focuses their protection efforts on consumer information & transparency issues, while the Rawlsian school, prevalent in Europe, former socialist countries and most emerging markets, lays stress on material consumer protection limiting the risk contents of products & practices.

significantly higher interest rate and foreclosure levels than the U.S. prime mortgage market. On the other hand, the subprime market has undoubtedly created access for many previously underserved groups. The debate has triggered re-regulation efforts of the usury issue by many U.S. states.[11]

Historically, usury rules have also been intended as a low-cost transfer instrument to the poor – this applies especially to religiously motivated usury rules that idealize the rich as a sponsor of the poor. This practice has invariably lead to severe **distortions of loan supply**. Consider the conservative interpretation of Islamic finance today practiced in Iran through the Law on Usury-free Banking. The law forbids inter alia paying predetermined interest rates on deposits – and this at a ca 15% inflation rate. Instead, depositors can enter schemes that distribute bank profit through lotteries of cars and household goods, or make the promise of receiving a housing loan in the future. Unsurprisingly, Iran shows a huge overhang of unfulfilled future housing loan commitments that has become debt of the banking system and government.[12]

Thetransaction costs of microfinance conflict with usury rules

Usury limits are particularly painful for microfinance lenders, which offer rates lying in between – inaccessible and moderate - commercial bank rates and – accessible and expensive – money lender rates. Clearly, because of their high loan administration and delivery costs to the poor, microfinance lenders cannot get close to effective interest rates offered by commercial banks.

For instance, in the Philippines in 2003 microfinance effective interest rates reached 60-80% while commercial banks lent at 25-29% (Source: Helms & Reille (2003)). Research published in the World Bank's World Development Indicators of 2003 show for a sample of 23 countries that the market penetration of microfinance lending in countries with legal or de-facto interest rate ceilings was only a fourth opposed to those countries without such ceilings. Table 3 summarizes the state of interest rate ceilings for a sample of emerging markets as of 2003.

Table 3 Emerging markets with various types of Interest Rate Ceilings and Treatment of Microfinance

Interest rate controls	Usury limits	De facto controls
Algeria	Armenia	Brazil
Bahamas	Bolivia[d]	China
China	Brazil[a]	Ethiopia
Libya	Chile	India
Morocco[a]	Colombia[b]	Laos
Myanmar	Ecuador[b]	Pakistan
Paraguay	Guatemala	Vietnam
Syria	Honduras[a]	
Tunisia[a]	Indian States	
UEAC[b]	Nicaragua[c]	
UMOA[a]	South Africa[b]	
	Uruguay	
	Venezuela[c]	

Notes:
[a] A separate regulation on interest rate ceilings exists for the microfinance sector.
[b] Microfinance lenders are excluded from interest rate ceilings, or are authorized to charge additional fees.
[c] Interest rate ceilings apply only to institutions and individuals not regulated by banking authorities (including NGOs).
[d] Introduced in January 2004.

It should be noted that mortgage finance often falls under a different regulatory regime and is excluded from such ceilings. Yet the comparison seems indicative of the general approach in the respective country towards material consumer protection.

The case of microfinance is another important application of the usury debate.

Unsurprisingly, microfinance advocates argue with John Bentham in favor of lifting interest rate ceilings and focusing consumer protection on enhancing disclosure and financial education. In fact, as table 3 shows, some emerging markets have excluded microfinance from their usury regulations in some form. It would seem, though, that the crucial question going forward to convince policy makers and regulators will be about the empirical link of default with cost of credit levels and whether and how fast microfinance lenders can achieve cost reductions without compromising their success in outreach.

Ethics, transparency and financial education – a minimum standard

Turning back to the classical Benthamitian position with its bias against material consumer protection intervention into products and rate levels, it would seem that ethics and transparency standards, as well as financial education, form a universally acceptable **minimum standard of protections**. In emerging markets, such a minimum usually does not exist, which in turn gives rise to frequent and distortive court interventions into mortgage lending.

Ethics standards are often a first step in a completely unregulated environment impaired by conflict and scandals. The Russian Banking Association decided in 2006 to establish a Code of Ethics following the Irish and partly UK examples, which develops inter alia rules against conflicts of interests (e.g. with developers), general consumer communication rules and most importantly an internal complaints process.

The next step, formal **transparency standards,** enhance/strengthen the underwriting process by imposing the complete and structured provision of pre-contractual information, a separation between general advertisements and specific loan offers[13] and the definition of minimum content and standards for contracts.

A particularly important lever to gain acceptance in the lender community is the insight that greater transparency and education does not just help consumers, but also improves fairness in competition among lenders. The classical example is the use of **effective interest rates** in parallel to nominal lending rates in advertisement and precontractual information with consumers.[14] Effective rates aggregate mandatory costs imposed by the lender, in disintermediated systems often also of third parties such as insurers, into a single cost of credit concept. This approach avoids unfair competition between a lender offering low interest rates but high closing costs and a lender offering market rates, a frequent scenario in emerging markets.[15]

[13] E.g. along the lines of the European standardized information sheet adopted by most European mortgage lenders.

[14] In the U.S., which first introduced the concept in the 1964 Truth in Lending Act the effective rate is called annual percentage rate of charge, APRC.

[15] In mortgage finance, great caution needs to be applied as to the specifics of effective rate regulations – inter alia, loans are rarely held by the consumer until contractual maturity, and assuming contractual rather than empirical maturity may distort the effective rate computation.

Introducing consumer protection legislation in Mexico

A 2002 law has introduced minimum consumer protection standards for mortgage finance in Mexico. These standards include in the area of disclosure a total cost of credit concept, a disclosure standard for contract terms, a binding loan offer period of 20 days, appraisal standards and authorization of appraisers as well as minimum contents of contracts. The Federal housing finance agency, SHF, is mandated to provide monthly comparative loan offer information to consumers.

As to be expected in an economy with a history of high inflation, material consumer protection concentrates on setting rules for interest rate adjustment. Variable rate contracts are permitted if they follow a public reference rate. Spreads over the reference rate may vary only within contractually determined limits. Prepayment of fixed-rate loans is not generally cost-free. The Central Bank and Federal Ministry of the Economy may jointly determine conditions and commissions to be paid this in case. Prepayment charges for variable rate loans, however, are limited to 1%. There are no usury ceilings for interest rates. (Source: World Bank Housing Finance Strategy (forthcoming))

An important ethics & transparency standard also concerns **conflicts of interest**, in particular concerning the relations between lenders and developers, but also lenders and insurers etc. As an example for the former, in many emerging markets consumers finance the development process directly with the help of bank loans. In this case, legislation may hold that deficiencies of the purchase contract - for example a building not being properly completed - translates into a deficiency of the loan contract. Emerging markets sometimes take very radical legal positions here – in Turkey, for instance, the lender is liable over 5 years for building deficiencies, while in neighbouring Ukraine a developer lobby-induced law eliminates such liability at all. Helpful in such situations could be explicit builder warranty schemes, which make a guarantee commitment to consumers explicit and assign a cost to it. Their existence, in turn, may temper legal interventionism and reduce the risk for lenders.

Consumer heterogeneity is a critical issue in low-income housing finance in emerging markets, and the need to invest into empowerment mechanisms for vulnerable groups, such as financial education, advice and redress, is becoming widely accepted. Even in developed markets, many borrowers are unaware about fundamental parameters of their loans, such as interest rate or repayment schedules. In studies in emerging markets, especially in rural areas, such ratios tend to approach 100%. Yet, experience with **literacy programs** is mixed due to their effectiveness only over the long-term.

More relevant in the short-term is access to credible and **low-cost complaint and mediation mechanisms** with lenders, such as financial ombudsmen or consumer advocacy groups. In South Africa, for instance, the microfinance lender association runs a successful consumer complaint hotline.[16] Ombudsman schemes are becoming increasingly popular in Central and Eastern European mortgage markets.

2.4 Enter the information society – new perspectives on credit risk

The bricks and mortar work-horse

The legal ability to pledge collateral to a creditor has been pivotal for achieving the **dual goal** of greater downmarket **penetration** and simultaneous **low interest rate** and default levels. Already the first institutionalized low-income lending business in

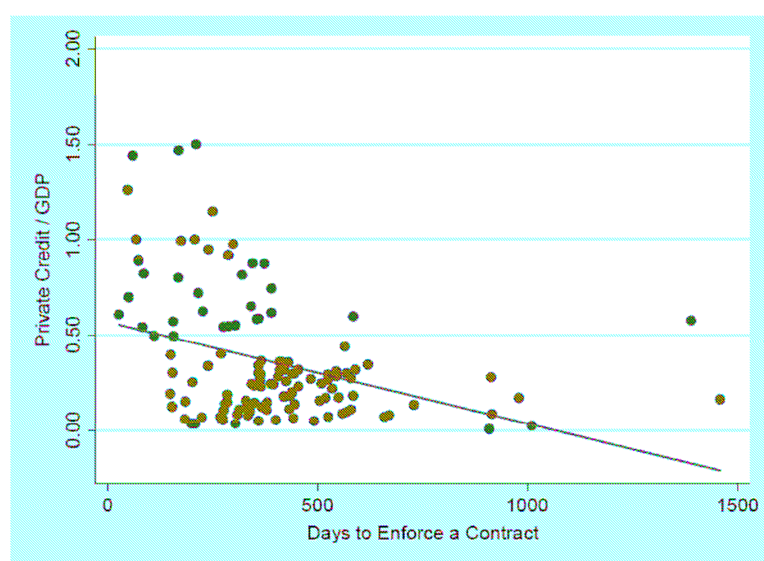
[16] See the discussion in Helms & Reille (2004)

history founded in 1452 in Perugia/Italy used collateralized lending to break the practice of charging high interest rates to the poor, which were deemed usurious by its sponsor - the catholic church. Numerous similarly structured institutions followed, from pawnbroker houses to modern co-operative mortgage lenders. De Soto's influential book, "The Other Path" (1990), identified the mobilization of properly-titled real estate collateral as a key empowerment strategy for the poor and moved it into the center of the development debate.[17]

While several preconditions need to be met to achieve the desired credit enhancement effect to which I turn in a minute, one conclusion is straightforward: mortgage lending cannot, as is still practiced in numerous emerging market financial regulations, be limited to narrow purposes – e.g. the acquisition of a house. It is rather a **multi-purpose credit enhancement tool** – for income generation, for old age retirement consumption, for housing - whose optimal mobilization for poverty reduction requires a less rigid treatment of admissible purposes.

The most important precondition for credit enhancement through mortgages is a **functioning legal system**, consisting of conducive laws and regulations and low cost enforcement mechanisms. The value of a properly structured legal system is the focus of the New Institutional Economics literature, spearheaded by World Bank in the early 2000s, which has produced numerous comparative studies on the issue. Figure 5 shows the close relationship between contract enforcement and credit to the private sector.

Figure 5 Contract enforcement and credit to the private sector/GDP



Source: Beck (2006)

Laeven and Majnoni (2003) find that judicial efficiency, in addition to inflation, has appeared to be "the" main driver of interest rate spreads. An improvement of property rights protections to the level of G10 countries would "achieve a reduction of banks' lending spread, net of inflation, of about 2.0 to 2.5 percentage points." Consequently, mortgage sector development programs in emerging markets have focused on

[17] See the recent discussion on case studies from Argentina and Peru though, that strongly questions the sufficiency of land titling for access to proper housing conditions and finance. See Economist (2006c).

improving property rights through land title provision, property and mortgage registration and enforcement of mortgage collateral.

Of the many complexities arising in creating credible property rights in the real estate sector, credible **collateral enforcement** is probably the core issue for both lenders and consumer protection groups alike. The reduction of enforcement costs has been a focus of foreclosure reforms that take various routes. Popular is the introduction of low-cost non-judicial enforcement of collateral and/or the severe limitation of appeals options of consumers.

The introduction of extrajudicial foreclosure in Colombia

With the mortgage market reforms following the 1999 crisis, Colombia also tackled the problem of long foreclosure delays. Previously, the foreclosure process lasted up to three years: the notification of the defendant through responsible public office alone could take almost a year, the defendant could then appeal the judgment, causing a delay of an additional ten months. After that, a time-consuming appraisal would have to be carried out by experts appointed by the court and ultimately the foreclosure itself would have to be processed by the court - in total loosing another year.

The reform reduced the duration of foreclosure to less than one year: notification of the defendant could now be achieved through certified mail sent by the lender, the appeals option to the sentence was eliminated, and the lender could present an asset appraisal equivalent to either the open market value or the value set by the local tax authorities. Finally, foreclosure now can be carried out by a commissioner – mostly through auctions in the Chamber of Commerce. Courts are still used, but less frequently.

Source: Cadenas (2006)

Rather than limiting appeals legally, their financial costs can also be made explicit – thus discouraging frivolous appeals that serve only to delay the process. In India, for instance, according to Butler (2003), “a debtor who disputes any action of the creditor pursuant to the law has 45 days in which to lodge an appeal with the Debts Recovery Tribunal. A condition of appeal may be that the debtor post an appeal bond with the tribunal of 75% of the creditor's claim, unless a lower amount is set by the Tribunal.”

While such limitations seem strict at first sight, it should be realized that the alternative is substitution to even less favorable instruments for consumers. In particular, **property leasing**, a technique prevalent in the corporate sector for tax arbitrage reasons in developed countries, is so widespread a technique in emerging markets that it dominates retail finance in such diverse places like Brazil, Egypt and Russia. Butler (2003) discusses consumer protections in the Russian case, where court interventions forced creditors over time to write contracts in ways similar to mortgage contracts. In Brazil, leasing-related consumer protections are even more developed than mortgage consumer protections. Leasing has particular relevance for low-income housing finance. A country systematically using this approach is Chile.

Where the workhorse stumbles...

Starting with the worst-case, credit default, developing **preforeclosure techniques** such as free-handed sales or workouts is often a win-win strategy for consumers and lenders. This holds especially true for emerging markets where bricks-and-mortar forced sales techniques lead even under normal property market circumstances often to erratic recovery values and losses due to delays. In situations of crisis, massive sales of foreclosed housing may exacerbate the decline, as was the case in Mexico in the aftermath of the Tequila crisis in 1995, which experienced a severe property market recession.

Most legal systems in developed markets now require that prior to foreclosure a demand must be made on the debtor to cure his default and a reasonable period of

time given in which to do so. In ‘Rawlsian’ jurisdictions, e.g. France, this procedure is a prerequisite for allowing the lender to demand acceleration of the loan repayment. But also in ‘Benthamitian’ jurisdictions preforeclosure now has a firm place, for example in the default management of U.S. public insurer FHA or in British industry practice.

Turning to loan underwriting, **appraisal standards** often generate bias toward low-income households, for example the costs of imposing mandatory external appraisal (a practice e.g. in Poland). Often, the only admissible collateral within reach is not permitted to support mortgage lending or capital market uses such as covered bonds or MBS. Land and in particular **progressive housing** construction are most affected by rigid definitions. Standards differ here even in developed markets – while it is normal for a German local bank to finance a progressively built home in instalments disbursed after checking construction progress at each stage, such lending practices have increasingly become uncommon in commoditized mortgage markets such as the U.S. or the U.K. Clearly there is little reason to exclude a progressive housing process executed under a relationship approach with a local lender from eligibility.

Yet, the progressive housing issue can be particularly delicate where regulatory lenience is needed most for affordability reasons, for example in markets with high house price levels and an absence of other low-cost developer finance techniques, e.g. Istanbul, Cairo or Kiev. Here, developers usually offer consumers **unfinished apartments** to be completed with the loans that consumers receive from banks. Rarely are those loans secured by mortgages, and frequently developers and banks are jointly owned, raising strong consumer protection concerns.

More problematic still are **valuation techniques** that exclusively rely on open market valuations. In a market with high developer margins, such as Kiev, where estimated margins lie between 50-70%, open market values will reflect high profit ratios. Often, appraisers are paid proportionally to the house price, etc. A reasonable alternative is appraisal rules focusing on construction or replacement costs, such as practiced by the Sociedad Hipotecaria Financiera in Mexico. Such a valuation approach also allows for systematic inclusion of progressive housing.

With a similar argument, the excessive reliance of mortgage finance on collateral value-related loan limit regulations has to be dealt with scepticism, in particular from a low-income perspective. ‘Bricks-and-mortar’ regulations, such as **loan-to-value** limits, focus entirely on the expected recovery ratio in case of a default, neglecting the drivers of (the probability of) default. This approach exacerbates the impact of any shortcoming in appraisal techniques as described above, and in particular helps to create lending-price cycles to the detriment of low-income borrowers that get crowded out of the market.

An easy application is the insight that rigid **LTV rules will not work in high interest rate environments**, which are characteristic for many emerging markets. A 70% LTV ratio for example may imply a 30% initial debt-service coverage (DSC) ratio in a low-interest rate environment and a close-to-default 50% initial DSC ratio in a high interest rate environment. Moreover, LTVs must be adjusted to future payment shock risk - a loan product with negative amortization or potential repricing risk should have lower LTVs than the amortizing mortgage with interest rates fixed to lifetime. Finally, LTVs in which the ‘V’ is not traced according to market values are rather useless even for a pure bricks-and-mortar approach – modern covered bonds and MBS operate therefore with the tracking of so-called ‘market’ LTV over time.

The critique made here applies also to the **'Anglo-Saxon split'** of the mortgage finance universe **between lenders and insurers**, which currently hinges on rigid LTV rules. It is easy to see how a risk-based approach might achieve the same results. More problematic still are rigid absolute LTV rules, the continental European practice, that crowd out in particular young households from the mortgage market when they could enter it with little additional risk to lenders.

Historical experience also suggests that strong house price cycles will come along with sudden expansion and contraction of credit available for housing. Such cycles are exacerbated by LTV and other static bricks-and-mortar regulations; they are often accompanied by procyclical ad-hoc limitations to mortgage and developer lending. Housing markets in developing countries are particularly vulnerable to the resulting **credit crunch**, e.g. in Mexico after the Tequila crisis 1995 or in Thailand after the 1997 crisis recovery took almost a decade. The Spanish approach of dynamic provisioning tries to counter the cyclicality of regulations by forcing lenders to accumulate reserves in exceedingly good times, especially when interest rates fall fast.

Dealing with information deficiencies

The emerging mortgage markets of the past two decades have ironically inherited the 'bricks-and-mortar' approach of regulation precisely at the same time when mortgage finance regulators in developed markets have gradually, but decisively been abandoning it and started focusing on a comprehensive information-based approach to all aspects of the lending process.

The triumph of **'regression banking'** in fact is about to change the world of finance globally. The appearance of empirical, often regression, techniques of tracing the determinants of credit losses since the 1980s has found a preliminary culmination in their entry into the financial regulations of Basel II (and forthcoming Solvency II), rating agency default models, as well as internal risk and price assessments of lenders. It is likely that in the coming years the entire body of mortgage-related finance regulations, for instance loan-to-value lending limits, and even consumer protection rules, for instance limitations to certain products, could be reinvented based on such empirical techniques.

In developed mortgage markets, a steady and increasingly reliable flow of information has converted previously unbankable borrowers into bankable ones. The U.S. or British **subprime markets** would have been unthinkable without modern empirical credit assessment techniques. The advent of scoring models that attempt to summarize the standing of borrowers in single figures have the potential to overcome income constraints that were previously absolute barriers to access. This has been demonstrated for example in numerous studies by the U.S. GSEs, Fannie Mae and Freddie Mac.

Many scoring models suffer from a lack of sound empirical verification of their ability to predict default. Inadequate data quality for empirical testing generates errors of exclusion (bankable borrowers from lending) and inclusion (non-bankable borrowers to lending). Especially in information poor environments, such as in emerging markets, these errors may reach scales that render more at-arms-length data generation techniques indispensable. Moreover, especially the errors of exclusion raise complex questions of consumer protection, e.g. about a right to appeal against an allegedly erroneous score.

Vice versa, adequate **data protection standards** for consumers have a significant impact on low-income borrowing. Many emerging markets – for instance Mexico - limit data coverage by credit bureaus to negative information such as previous defaults and other credit impairments. Positive information about successful credit or rental histories, however, is pivotal to improve access through improved credit scores.

Relationship lending approaches – those of local lenders, co-operatives, microfinance, - are the most valuable datamines of banking in an information poor environment. Credit histories, as well as important ancillary data about living and working conditions, are individually collected, verified and processed by the lender. This data generation method has the advantage of creating extremely reliable and detailed information about the behaviour and financial circumstances of borrowers, especially if applied in combination with disciplining and revelation mechanisms such as group/family control or even liability. In many emerging market situations, these methods are in fact the only reliable information source.

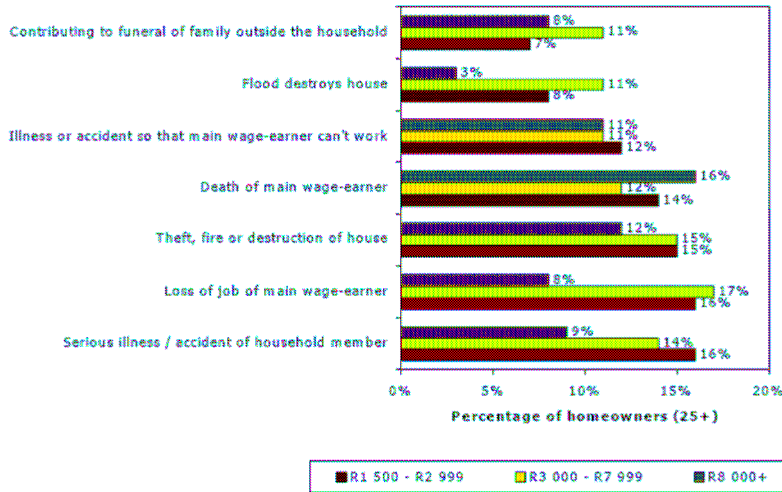
The disadvantage are the high per credit administration costs and – by implication - their limited reach. It seems therefore clear that – especially, but not only in the emerging market context - relationship lending approaches need to link to broader data generation technique in order to expand outreach. One option, also for emerging markets, are datapools and centralized credit assessments offered as internal service by trade groups, as e.g. practiced by co-operative banks in France and Germany.

In this vein, the frequently encountered notion of **conflict between relationship and regression banking** approaches will appear increasingly **artificial** going forward. What is missing is the systematic incorporation of data quality issues into financial regulation, whether with respect to testing of empirical models or accepting the higher quality of data generated by at arms length relationship approaches.

How risky is low-income housing lending in emerging markets empirically, and what are the determinants of default? Clearly, to begin with, the **vulnerability** of low-income households to specific shocks is higher than in the case of middle-income households, as figure 6 suggests for the case of South Africa.

Yet, the available evidence suggests that the approach to lending is of crucial importance. For example, data from housing banks following a centralized direct lending approach suggest a significantly higher default risk for low-income groups. In the Brazilian Cartera Nova, originated after a significant restructuring of the housing finance system between 1993 and 1999, the housing bank Caixa's arrears of over 90 days were – by cohort of origination - three to five times as high as arrears of the private savings bank system SBPE.

Figure 6 Vulnerability of low-income households in South Africa to various default triggers

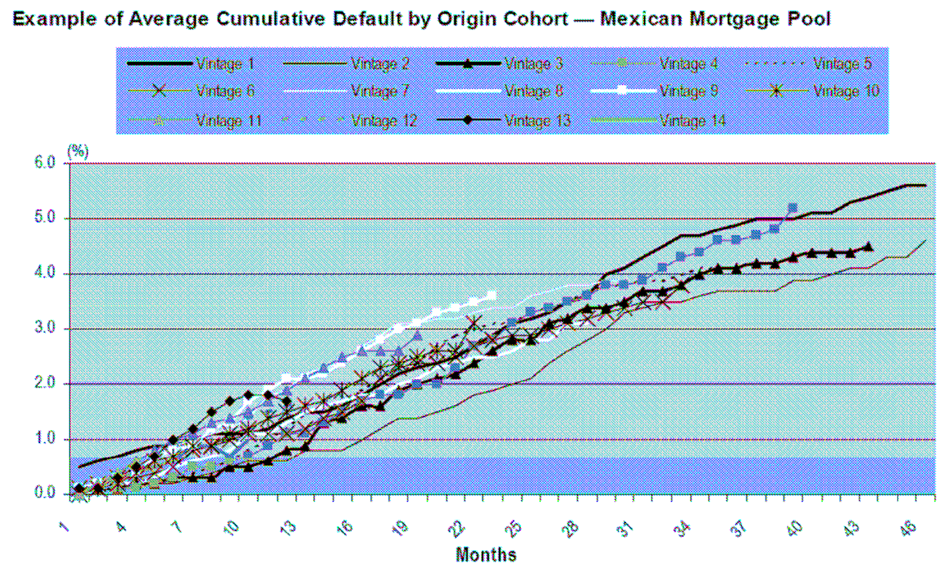


Source: NHFC (2003). Note: Survey based on self-assessments.

Similar results are found in South Africa. A study undertaken by the NHFC (2003) determined that **loan servicing deficiencies** were co-responsible for defaults. In almost one quarter of cases, there was no immediate lender reaction after the borrower had fallen into arrears. Fannie Mae in 2004 undertook a similar review of servicing practices of South African lenders and found that institutions suffering from high defaults often had limited physical presence within their targeted communities, that few decision-makers dealing with the low income market were themselves from the target market, and that some lenders had not developed appropriate contact methods for the low-income market. These points support the relevance of a functioning, and potentially costly, relationship approach to gather sufficient information about low-income borrowers.

The crucial point of developing a **workable servicing model** is bolstered by recent research undertaken by Fitch for Mexican Sofoles, which serve a lower-middle income market. Figure 7 shows cumulative default rates for pools of various cohorts. The results "support an expected base default rate for the market that generally ranges between 5%–8%". This level is twice the average level of prime mortgage pools in developed markets, but very much in line with prime mortgages in Mexico.

Figure 7 Cumulative default rates of Mexican SOFOLs mortgage pools of various vintages



Source: Fitch (2006a), based on Sofoles data.

Very recently various rating agencies have started to develop **low-income housing finance default models** for emerging markets, inter alia for Mexico and South Africa.[18] The availability of ratings is likely to increase the attraction of international capital to these markets. The development of borrower databases is a central element in such methodologies - Fitch's approach to Sofoles in Mexico for instance requires that borrowers are scored by FICO, the U.S. scoring provider that has developed a respective service for the public agency SHF.

Regulation in the information society

The fast differentiation of the lender spectrum in housing finance and the emergence of 'regression banking' as a dominant technique in lending globally make it clear that the still dominant approach of regulation – a bank regulator pursuing a 'widows and orphan's' protection approach focusing on the safety of deposits with simple rules – is about to disappear. **Basel II**, the main reform project of bank regulation, and soon also its insurance pendant Solvency II, start to address both issues by explicitly accepting **empirical credit risk modeling** techniques (Pillar I) and next to strengthening supervisory review (Pillar II) accepting a **market assessment** (Pillar III) of intermediary solvency.

The change in approach has strong implications for emerging markets. First, although most lenders and regulators in emerging markets will remain with the standardized approach for capital requirements in the immediate future, or even not implement Basel II, the mere prospect of a data-based option for credit assessments will **revolutionize data collection, loan pricing and servicing standards**. While lenders in emerging markets are severely challenged by foreign market entrants with better data processing capabilities, those who confront the challenge will on the other hand be given the chance to jump over the decades of stagnation in terms of coverage and

[18] See Fitch (2006a) and Fitch (2003).

service quality that have characterized many overregulated developed markets in the past.

Secondly, the very availability of data and improvements of process will **attract investors beyond banks** that are no longer subjected, or should be subjected, to similarly strict rules. Already in a number of cases moderate or low-income housing finance companies primarily rely on capital market access – for instance the Sofols in Mexico and housing finance companies in India. This argument implies simultaneously an overhaul of the investment regulations for pension funds, insurers, mutual funds and other investors in housing assets; for instance, many of these investors are still confined to extremely limited, and often biased, investment menus that often exclude mortgage-related securities.

Thirdly, while it is likely that a coexistence of bank regulation and market control will prevail due to the fact that investor protection per se, not just deposit protection, can be seen as a public good, the **weights will shift towards market control over time**. Questions such as who sponsors rating agencies – investors or issuers, about data quality and optimal models, will dominate the debate also in emerging markets. Emerging market governments can assist the process by securing optimal data collection and availability for credit assessment purposes.

An important, yet not systematically tackled issue – both by bank regulation and rating agency approaches on behalf of investors – is the **vulnerability** of mortgage lender solvency in the presence of **market risk,** such as interest rate and house price risk. By not covering capital charges for interest rate risk, an important source of solvency risk for mortgage lenders, Basel II continues to put capital market funded

New mortgage loan risk management systems and regulations for Colombia

After a default crisis, Law 546 of 1999 had enforced a change in the Colombian system of mortgage indexation to relieve consumers. With this change, lenders came under renewed pressure due to mismatches arising with their costs of funds, leading to an extension of the crisis.

The Colombian government reacted by creating new capital requirement and risk management framework for mortgage finance, under which - in analogy to the Basel II approach - financial institutions were do their own risk evaluations and determinations of provisions and risk-based capital. A new system of evaluation and administration of credit risk (SARC) was introduced. Exposure to market risk (interest rate, exchange rate, inflation, etc.) was to be addressed with a value at risk concept that would determine an additional capital requirement.

In total, capital requirements were raised to 9% of risk-weighted assets, and undercapitalized lenders were given a transition period of 3 years to reach that goal, or close/merge. For those lenders unable to develop their own internal risk models, Superfinanciera offered a benchmark model.

lenders at a disadvantage. A number of emerging markets have nevertheless responded to previous crisis situations and refocused their regulations on avoiding mismatch in mortgage finance, e.g. Mexico after 1995 and Colombia after 1999.

It would finally seem that the same information-generation and processing approaches applied now in banking regulation should also help to **improve consumer protection rule-making**. These rules are frequently still formed by lawyer's general beliefs, rather than hard empirical facts. Once existing, databases can be pooled to arrive at the relevant default incidence calibrations, e.g. for product or usury limitations. Unfortunately, pooling of data at the national or even international level is not an easy task, given a plethora of legal and institutional impediments in the consumer and corporate data protection spheres.

2.5 Findings and recommendations

I identified throughout this chapter three main messages to financial regulators, consumer protection lawmakers and others involved in configurating the mortgage sector in emerging markets:

- First, the tendency to overregulate and overengineer commercial banks as well as their attitudes to low-income lending create high access costs and cartel-style market structures in emerging markets. Lending institutions that are subjected either only to capital market control (such as finance companies, mortgage brokers etc..), or to lighter bank regulation (such as microfinance lenders) should exist in direct charter competition with commercial banks. In the long-run both a liberalized and 'light' banking charter is the preferable integration strategy globally.

- Secondly, regulatory limitations or biases of the mortgage product menu are key access barriers as they raise credit costs. To the extent that lower credit costs coincide with higher default risk, e.g. in the case of adjustable-rate and forex lending, sufficient safeguards – such as interest rate or negative amortization caps – should accompany a desirable deregulation strategy.

  The same access problem arises from other protection rules, such as strict usury ceilings or foreclosure protections. These regulations often drive lenders into informality and bring in the end even less protections for consumers. A better approach, from the perspective of low-income households, would prioritize improvements in protections relative to informal sector practices rather than trying to optimize standards in the small formal sector. That said, well understood consumer protection and financial education can be key support strategies for low-income housing finance. They ensure fair lender competition, transparency and where necessary limit consumer risk-taking. These measures should by no means be seen as a luxury good for the developed world.

- Thirdly, while the ability to mobilize real estate collateral is a unique access instrument with the potential to keep interest rate levels affordable, it is overrated as a credit enhancement instrument – especially if compared to the much broader range options for credit risk assessments arising in the information society.

  Many collateral-related regulations are ill-suited to an emerging market context, which is often characterized by hard-to-appraise progressive housing or unfinished construction lending, limits to loan-to-value ratio applicability and limits to standard approaches to foreclosure. Tailored mortgage laws and regulations are needed to optimize the use of collateral under such circumstances.

  Emerging markets, as their developed country counterparts, should transition away from bricks-and-mortar standards to embrace the new techniques. The information opacity of potential borrowers is perhaps the single most important access constraint in emerging markets, and technology-based ('regression') and relationship approaches rival in the best strategy to its remedy. Since both approaches are broadly complementary – for instance relationship approaches such as microfinance or local banking need

technology-based upscaling – regulations should not discriminate among them but rather attempt to enable both, including in combination.

Regulation and supervision in emerging as much as in developed markets can be generally improved by closer interaction with the capital markets, a new approach that is already partly formalized under the Basel II framework. Yet the potential is larger: capital markets bring greater risk appetite and focus to emerging markets, which in turn supports the combined institutional, product, collateral and information mobilization strategy needed to deepen access.

3 Supporting housing finance access

"Take a method and try it. If it fails, admit it frankly and try another. But above all, try something."

Franklin D. Roosevelt, US President 1933 – 1945, describing the New Deal programs

"To look upon these programs as the result of a unified plan was to believe that the accumulation of stuffed snakes, baseball pictures, school flags, old tennis shoes, carpenter's tools, geometry books, and chemistry sets in a boy's bedroom could have been put there by an interior decorator."

Raymond Moley, Former advisor of Franklin D. Roosevelt

3.1 Introduction

Historically, privately organized financial markets have developed 'bottom-up' institutions that serve low-income households in their self-interest – be it profit orientation or community development. Such institutions over time generated more complex products, such as mortgage finance, and the necessary apex structures for their funding and risk management. As historically in Europe and North America, bottom-up development is well under way in emerging markets: examples are cooperative and savings banks, and more recently microfinance institutions.

In the first chapter of this section I explore why governments have nevertheless so frequently intervened by developing public housing finance institutions and what the key lessons have been learned from mistakes made during such interventions.

The IT and communications revolution as well as the globalization of financial services in the past two decades has changed the situation for emerging markets more radically than ever. A top-down market penetration approach is becoming a realistic option as high-street lenders and investors caught in low-margin markets seek new, more profitable niches. Brokers and other fee originators that allow low-income consumers greater choice and lower prices increasingly take over distribution systems. Modern loan servicing techniques allow unprecedented reductions of administration costs. Based on proper servicing, access to global funding and risk-management options are now available in many emerging markets.

In the second chapter of this section, I discuss what the appropriate reaction of public support to these trends should be. Such a reformulation of strategy brings along the analysis of remaining or new pockets of market failure and a differentiation of both instruments and intensity of public intervention.

3.2 Learning from past mistakes

Public intervention into the **institutional structure** of housing finance is as old as the industry itself. Some have argued that without such steps the industry would not exist: for instance in France in the 1860s and the United States in the 1930s public interventions were so dominant that they can be credited with having created the mortgage market. Yet this cannot be said universally; otherwise the success of the private-sector based British or the German/Scandinavian mortgage market models could hardly be explained.

In emerging mortgage markets, both the institutional structure (including most related laws) and the degree of interventionism were initially **transferred from their respective developed country models**: the French housing bank and directed credit approaches have been copied extensively in Spain, the African Francophonie as well as the entire of Latin America. The British building society system has shaped mortgage finance around the Indian ocean and in North America. The German-Scandinavic corporate bond model was copied actively in Eastern Europe. After World War II, the American agency system of the 1930s not only was transferred to Europe, but also to former colonies such as the Philippines.

Not only is the uncritical adaptation of institutions and laws a questionnable, often failing, development strategy. Also, **fundamental flaws** embedded in the origin country's approaches are transferred simultaneously, and more than often magnified by the local risk environment for which the institutions were not suited. The main issues in retrospect are:

- public retail (first tier) lending as a substitute to private sector lending rather than an incubator or in partnership, and
- excessive influence over private credit through regulations.

The origins of the **housing bank approach** in the form of Credit Foncier must be seen in conjunction with the credit direction policies of the 19th century towards financing the public debt that had virtually eliminated private sector housing lending in France. Initially an apex bank concept – a mortgage bond issuer following the earlier German mortgage bank foundations – CFF was turned through political engineering into a retail lender that dominated the system for the coming 120 years. Spain, Chile, Argentina, Uruguay, Brazil all copied this model early. A second wave of housing banks came with the authoritarian development approach and decolonialization in the 1950s and 60s to Africa and Asia, inter alia Nigeria, Algeria, Egypt, India, Pakistan and Thailand. Even today, state housing banks continue to be created – new foundations or revitalizations include Ivory Coast, Congo, Mali, Senegal, Gabon, Namibia or Rwanda.[19]

The **performance of public retail lending** in developing countries has generally been poor. Fiechter et al (2005) stress the multiple governance issues arising from insufficient fiscal transparency and inadequate mandate performance, management and regulation problems. The authors suggest privatization as the preferred transformation strategy or alternatively supervision of public lenders "as if" (they were private lenders). This assessment is similar for the majority of housing banks, some of which suffered large losses that contributed to debt crisis situations in their

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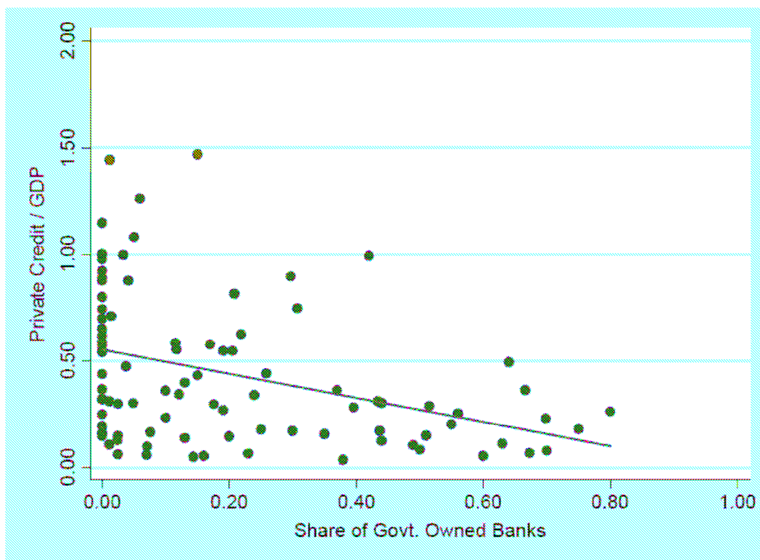
[19] Source: Olivier Hassler (World Bank), unpublished work.

countries. For instance, Brazilian Caixa Economica Federal, the national mortgage bank, is estimated to have generated recapitalization costs for the public sector of $50 billion.[20] Banco Hipotecario del Uruguay displayed in 2001 a delinquency rate of 40% as well as considerable losses from asset-liabilities mismatches. The bank collapsed during the Uruguayan financial crisis of 2002 - recapitalization needs are estimated to amount to $1.5 billion , or 93% of the loan portfolio outstanding in 2001.[21]

Figure 8 Share of government-owned banks and credit to the private sector



Source: Beck (2006)

Apart from governance issues, an important cause of poor performance was the ill-designed attempt to do **retail lending on a centralized basis**. For example, loss-making retail lender, Brazilians Caixa Economica, was created from Banco Nacional de Habitacao, which had been operating as a second tier lender for Brazilian savings banks and local finance agencies as a result of a faulty problem analysis: primary lending during the hyperinflation in the 1980s had all but ceased primarily because of political interventions into mortgage instruments. As the government stepped into the gap left by a crowded-out private sector, the problems worsened.

In contrast, the Government Bank of Thailand, despite benefiting from subsidies, can be quoted as an example of good performance because the institution has systematically drawn the consequences from earlier governance and design flaws.

Government Bank of Thailand – turned around to good performance after recapitalization

GHB was established in 1953 as a classical housing bank and, after a costly recapitalization in 1973 started a new life as a commercially managed institution. The bank is subjected to strict corporate governance rules, focuses on the quality of its portfolio, and posts positive results (USD 109 million in 2005 for assets totaling USD 13.3 billion).

Despite being national, GHB operates as a decentralized savings bank with more than 120 branches which increases loan origination and servicing quality. A contributor to low default rates is the

[20] Source: finance ministry estimate of 2002 quoted in Fiechter et. al.(2005), see also Alberdi and Dübel (2000) for related discussion.

[21] Source: Olivier Hassler (World Bank), unpublished work.

consequent pass-through of GHBs favorable funding conditions – low bond spreads, the absence of dividend payments and until very recently lower capital requirements than private lenders.

GHB has a diversified low-income housing loan portfolio that includes funding of social housing and slum upgrading programs as well as leasing – targeting households that the financial system would not serve. Importantly, GHB acted as a stabilizer during the 1997-2001 mortgage market crisis: while lending by commercial bank dropped, GHB's activity level remained the same and its market share jump from its traditional 29% range to over 35%. Moreover, GHB has been supporting the mortgage market infrastructure through its involvement in the inception of the first Thai retail credit bureau, a real estate information center, and a mortgage insurance scheme.
Source: Lea (2005)

A more recent and promising approach for retail lending is **public-private partnerships** through joint ventures. The International Finance Corporation in particular has helped to create a number of primary lenders in low-income finance that have transformed their markets. Successful examples are HDFC in India and Delta BRAC in Bangladesh. HDFC, established at the end of 1977, was initially supported by public guarantees on its debt, the direction of insurance companies and incentives for banks to finance the company. The company has since grown strongly and acted as the promoter of other finance companies that today form an industry catering to India's growing middle class. One such promotion abroad was Delta BRAC, which brought HDFC together with two Bangladeshi insurance companies and microcredit NGO BRAC. Delta BRAC uses both standard and microfinance origination and servicing techniques.

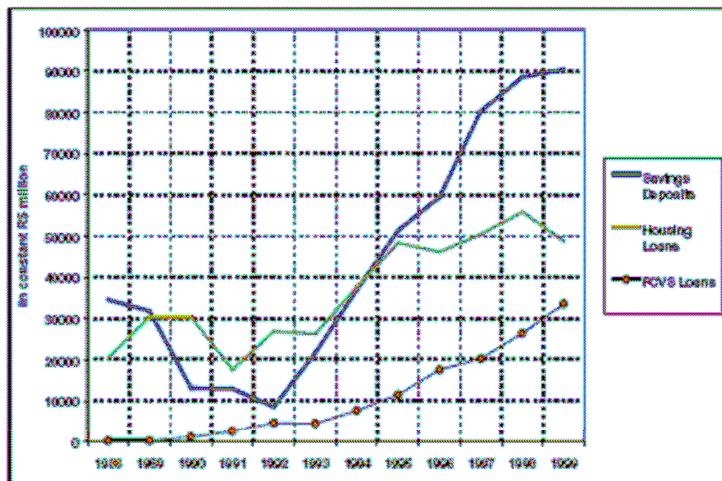
The HDFC example shows that **regulatory credit direction** of funding may have benefits as an instrument providing badly needed long-term capital in the absence of a functioning corporate bond market, which was the Indian situation in the 1980s. Yet, directed credit has also been one of the most abused and problematic interventions, especially if covering retail lending, and has more frequently been used against rather than in favor of housing finance. It is rarely known for example that already in the early 19th century the French and British governments de-facto nationalized their low-income depository systems – Caisses d'Epargne and Trust Savings Banks - by directing their savings deposits to be invested in public debt. This has left deep traces in numerous savings and postal bank institutions globally that continue to be severely constrained in their consumer lending and subjected to credit directions. An example is the Japanese postal service that was only reformed in 2004. In emerging markets, directed credit systems have lead to spectacular failures, such as the Brazilian savings bank system SBPE.

The failure of Brazil's directed savings bank system

The Brazilian housing finance system, Sistema Financiera Habitacional, consists mainly of the housing bank, Caixa Economica Federal – funded mainly by a wage tax, and a private savings bank system, Sistema Brasileiro de Poupanca e Emprestimo (SBPE) – funded by tax-preferred deposits. The idea of the SBPE was to invest those deposits into price-level adjusted mortgages, which protect borrowers from the impact of inflation on affordability.

However, the initial deal was not kept by Brazilian politicians, who intervened frequently into payments due to banks in favor of consumers. The result was ballooning outstanding housing loan debts that, at their maturity, had to be cancelled by a government fund, Fundo de Compensação de Variação Salarial (FCVS). Because public debt was already high and expensive to service, the savings banks were allowed to finance those debts. As figure 9 shows, this soon led to the illiquidity of the savings bank system.

Figure 9 Balance sheet positions of Brazilian savings banks 1988-1999



Source: Alberdi & Dübel (2000)

Essentially, the government was providing tax incentives for the soft funding of its own debt. And the savings banks were happy with the procedure, as such public bond investments returned more on a risk and cost-adjusted basis than risky mortgage lending.

Avoidance or simple non-compliance with directions is another problem. In Nigeria, for instance, the government stipulated in the early 1980s that 5%-6% of total lending should be channelled into housing. Nigerian lenders,however, did not comply with this ratio despite sanctions threatened by the Central Bank. The regulation was dropped in 1993.

The U.S. Community Reinvestment Act of 1975 receives a great deal of attention as a comparably soft form of credit direction. The law sought to prevent redlining of underserved urban areas with strong minority populations by relating minimum requirements for banks to provide financial services locally to a regulatory credit mechanism. Diamond (2002) argues that despite conducive mechanisms, such as local government monitoring, it was rather the parallel mandate changes of the government-sponsored enterprises Fannie Mae and Freddie Mac in 1992 towards low-income housing that pushed the mortgage industry downmarket. In addition, the advent of the subprime market and the associated interest of private lenders in the low-income market furthered this trend. The multiplicity of trends that helped to push credit downmarket in the U.S., as well as the politics surrounding their evaluations, render a thorough assessment of the isolated impact of the CRA difficult.

3.3 Promising strategies

In the new era of housing finance, characterized by considerable interest from a variety of private sector institutions, few arguments are left for strong and lasting direct public intervention into the mortgage market. The most promising strategies for public assistance try to **address** the **reason for private market failure directly** and with targeted approaches. The relevant areas are in particular:

- The absence of access options for 'bottom-up' institutions' to data pooling, risk management and risk transfer mechanisms, which may pre-empt them from offering housing loans with their idiosyncratic risk profile (dual credit character – collateral and borrower standing, long maturities - often with fixed interest rates.
- The opportunistic commitment of some top-down lenders, commercial and investment banks to the low-income market, which calls for some sort of sustainable, incentive-based 'social contract' – as opposed to credit direction.
- The lack of mortgage market infrastructure, especially access to e-finance, information on consumers and properties, access to redress and courts as well as education, that raise mortgage lenders' transaction costs and general business costs.

In many emerging markets, there is an array of **microfinance institutions** which can, or could where a proper environment existed, develop housing finance products. Lea (2005) points out that microfinance institutions in Bolivia (BancoSol), Chile (Banco del Desarrollo) and India (Sewa Bank), which originated from very different institutional forms, such as NGOs or the church, have developed into successful housing finance institutions. Some, such as BancoSol, are even tapping the bond market to fund their low-income lending. Moreover, in poor countries where little formal finance is available, microfinance institutions have been the only institutions to provide 'middle-income' lending. Examples are Delta Brac in Bangladesh, noted already above, and the Home Finance Corporation in Ghana.

Peachey and Roe (2006) and Hassler (2006) point to the relevance of **savings & loan and co-operative banking institutions** in emerging markets. As in the historic European and American models, both types of lenders have over time developed mortgage lending and first require a savings phase before granting larger loans: The Nyesigiso savings & loan network in Mali has 47 member institutions with 200,000 accounts. It offers mortgage loans since 2002 with mortgage insurance being provided by the Mali Guarantee Fund. Loans are given up to 20 years, with competitive interest rates. In Rwanda, the Union des Banques Populaires has 150 co-operative banks and 360,000 accounts and is the second largest housing loan provider of the country . The Populaires offer 15-year housing loans, contract savings-for-housing schemes. In Paraguay, the main housing finance providers are Cooperativas de Ahorro y Credito and "Cajas Mutuales" (closed membership). Hardly any housing finance is offered by commercial banks. Cooperatives have conquered 18% of the credit market.

In Europe and the U.S., most bottom-up institution groups created apex institutions that served **risk management and capital market access** purposes: for instance Bohemian savings banks already in 1901 developed the first European secondary mortgage market by jointly owning Pfandbrief lenders. Similar institutions followed in Switzerland (Pfandbriefzentrale) in 1922, in the United States (Federal Home Loan Banks) in 1928, as well as later in Germany, France and Spain. Today, with the

notable exception of building societies, almost all bottom-up lenders in Europe own apex institutions.

The same doubtlessly will develop in emerging markets on its own: for instance the Rwandan Banques Populaires are supported by an apex bank, and in Mali the mortgage lending of the Nyesigiso S&L network is supported by a jointly-owned guarantee fund. Yet, the slow speed of the historic European process – the savings banks took several decades to develop own apex institutions – seems hardly acceptable today. At the same time, the IT revolution offers high benefits by accelerating all processes with scale economies: credit information sharing, integration of payment systems, joint risk management systems, yet also imposes high investment costs. To stem such investment, public support can be helpful.

In Mexico, the federal housing agency SHF has fully reversed its strategy towards enabling the risk management and funding of bottom-up lenders, as well as developing market infrastructure.

Sociedad Hipotecaria Federal/Mexico – a new type of public mortgage agency

The former housing finance fund FOVI was turned around after the Tequila crisis from an inefficient direct public lender into multifunctional public agency that addresses various market failures with different means and provides public goods for the entire mortgage market:

SHFs main financing function today is one of a guarantor of bonds issued by housing finance companies and banks in the middle-income market. It played inter alia a major role in supporting the emergence of the SOFOLs over the past decade. SHFs guarantees are government backed only until 2013; after that the credit of the institution will matter for its credit enhancement.

On the retail level, the company offers mortgage loan insurance and a swap program that covers borrowers against mismatches between nominal minimum wage development and payments due under the predominant price-level adjusted type of mortgages. The fund backing the swap can sustain a 25% deterioration in real wages over a 30 year period.

In addition to its financing activities, the agency works on improving the information environment of the Mexican market by introducing a mortgage credit scoring mechanism, and offering consumer information on the loan offers to the market. SHF is finally active in developing the legal-regulatory environment of mortgage finance in Mexico.

Many European savings bank networks, such as Spanish cajas or German Sparkassen, operate under implicit or explicit **social contracts** that trade subsidies or ownership-related advantages against a lasting and regulated commitment to low-income finance. Social contract approaches have seen a very mixed performance, depending on their formulation and enforcement mechanisms. In the German savings bank case, the commitment is enshrined in broad terms in state law and supervised by state finance ministries; yet it is not enforced with hard targets due to political conflicts of interests of the public owners, resulting in suboptimal performance.[22] In Spain, in contrast, Cajas need to fulfill statutory social dividend targets in proportion to their profit – the system in 2005 disbursed over 1 billion Euros in cash to a variety of local social and cultural purposes.

Still, it should be noted that many relationship lenders with well-defined constituencies, such as member-owned co-operative banks and many types of

[22] According to earlier, unpublished research of the author German savings banks in 2002 paid social dividends of approx. 700 million Euro, of which the majority in soft loan disbursements. The conflict of interest arises from direct public ownership that preempts greater disbursement of social dividends in favor of other uses, e.g. self-finance of growth.

microfinance institutions, do not need explicit social contracts at all to stay focused on their segment.[23] Subsidies for many of these institutions are “anathema” [24] due to the dependency and conflicts of interest they create. Despite occasional demutualization and privatization events these groups appear to be sufficiently stable to deliver service over the long term.

A well-defined and targeted social contract approach appears be worth trying in emerging markets. In South Africa, the 2003 Financial Sector Charter has established a **lending commitment** by the four main commercial banks to extend a certain volume of low-income housing loans within 5 years. As pointed out above, the goal is in jeopardy due to rising housing costs, but the approach itself seems to work. In Chile, the government is offering **origination subsidies** for lenders disbursing small construction or modernization volumes in order to compensate for the additional costs.

Targeted social contracts can lead to significant **servicing capacity** effects. This was found to be the case in Slovakia, where consumer savings in contract savings for housing schemes (Bausparen), which generates small housing loan entitlements, became subsidized in 1992. The small loan self-targeting of the schemes forced lenders to develop the capacity to service low-income households that were the most likely group to draw on the loan entitlements, e.g. for use in modernizing their existing homes. Yet, as with all subsidy programs, there is risk of moral hazard, as the abuse of the same, initially even identical, subsidy program in neighbouring Czech republic shows. There, lenders were allowed to invest the accumulated savings into mortgage bonds issued by highstreet mortgage lenders, rather than promoting their own small loan portfolio, a mistake that Slovakia avoided.[25]

Finally, in the new era of housing finance characterized by strong private commitment, a high social return and improvement of access can be expected from a **public investment strategy** into mortgage market infrastructure. Such a strategy should focus on the three central factors for private sector involvement:

- Access to communication: from access points such as cell phones, IT access points to enabling correspondent relationships through deregulation. IT access can significantly lower the costs of access to both accounts and loans. Porteous (2006) describes the example of Brazil.
- Access to information: investment in property market information (supply/demand) systems, raising systematic consumer information from public surveys, assistance in the development and verification – with loan-level credit risk data - of scoring systems, are infrastructure factors that raise the awareness of private lenders for market opportunities and provide comfort with regard to risk levels taken.[26]

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[23] See for example the critique in Sinn (1997), who finds German co-operative banks as likely to serve low-income households as savings banks.

[24] Quote from Daphnis (2006)

[25] See Dübel (2003)

[26] Often, moves to improve on the information infrastructure results from regulatory pressure stepped up after crisis situations. Since the 1997 crisis in Thailand, for instance, most lenders have

- Facilitation of servicing: improvement of the legal systems and the accessibility of courts are central. Introducing complaint and redress systems as well as sponsoring financial education can reduce the level and intensity of conflict between lenders and consumers.

Where such infrastructure is essentially in place, such as in Mexico with the assistance of the SHF, demand by private investors for risk-taking is rising, enabling a **new top-down development approach**. In Mexico, a run of international investors on middle-income finance companies has set in, with big international names – GMAC, Deutsche Bank, Soros Foundation being all present. Similar demand is noticeable in the BRIC countries; many specialized mortgage franchises in saturated markets such as the U.S. are going global, starting with mortgage insurers and servicers. As a number of co-operations show, these institutions will eventually connect to the bottom-up institutions and establish a division of labour, or partnership, with government.

3.4 Findings and recommendations

In this short tour d'horizon I came to five findings concerning the efficiency of the public support instrumentarium in low-income housing finance in emerging markets, and resulting recommendations:

- First, public direct lending and the agency model have – with few exceptions – suffered from poor performance in emerging markets. This is partly due to design flaws – centralized lending, crowding-out or reliance on tax funds rather than bond markets - and partly to governance issues that generate confusion on the borrower side between what is a loan and what a grant. Direct public lending should only be considered when the private sector is not willing to take any risks in the relevant area, or new products need to be introduced. In these situations, short-term exit strategy is essential.
- Secondly, directing credit to housing finance through regulations has proven to be a risky support strategy, especially if simultaneously combined with interventions into loan pricing - as in the Brazilian case. The instrument can help as a jump-start device with clearly defined program goals, time limits, and risk-based pricing. Usually, however, macroeconomic and legal risk factors explain the absence of lending and should be addressed prior to such intense interventions.
- In contrast, incentive-based models to encourage - bottom-up or top-down - low-income lending, while fraught with risk, appear to have been more successful. Good performers have defined explicit 'social contracts' with lender groups that carry quid-pro-quos – e.g. tax incentives against targeted loan delivery. In contrast, many social contracts are in practice only implicit and suffer from too general or unenforceable mandate definitions – the classic example is savings banks with their extremely heterogenous mandate definitions. Subsidizing borrowers or certain types of properties (self-targeting) is often more efficient than providing incentives to institutions, in

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improved their internal processes and IT systems, and have introduced new scoring tools for underwriting.

particular if the entry costs of distribution networks have already been incurred.

- Fourth, providing or assisting in obtaining access to funding and risk management seems the most promising institutional support avenue for government to upscale the successful activities of bottom-up institutions. In such business lines, scale effects often blur the distinction between private and public activity and some level of public intervention (be it monopoly control of a private entity) is justified. Again, governance is key – for instance public bond guarantees should carry risk-based premia, and refinancing agencies should exit the market once private institutions are available. The Mexican case here provides for a promising example of flexibility in approach and sound implementation.
- Finally, public investment into the infrastructure of mortgage finance should no longer be marginalized in the policy debate because of their low political visibility and lack of immediate impact. Functioning land markets, public infrastructure provision, financial education, court systems, access to internet and thus e-finance, access to land registers and consumer databases are among the public investments promising the greatest social returns for low-income housing provision. This holds true in particular in a globalizing financial services industry with increasing risk appetite that materializes when such basic infrastructure is in place.

4 Conclusions

Much of the current discussion of increasing access to finance is devoted to whether emerging markets can 'leap-frog' the decades of progress that have brought low-income groups into the mortgage market in Europe and North America.

It seems indeed that the global IT and communications revolution and globalization trends in the financial services industry can create maximum impact for low-income households in the developing world, if the right combination of modernization of regulations, institutional development and infrastructure provision for mortgage finance is adopted.

Echoing the World Bank's 1993 housing paper, I offer a short-list of Dos and Don'ts that would form part of such a low-income housing finance strategy:

Modernizing regulations

Dos

- Allow bottom-up and non-bank financial institutions to operate through separate charter or on a lean regulation banking basis
- Systematically review laws and regulations that could hinder access to finance
- Benchmark such laws and regulations to practices in the informal sector, rather than developed market practices
- In the long-run, aim at a data-based product/activity-focused regulation framework that treats all institutions, products and covenants similarly and trace, rather than assume, determinants of default and loss-given-default
- Widen regulatory perspective by including corporate governance and transparency, especially through increased capital market control

Don’ts

- Overregulate banks, which in particular harms the business of smaller and local banks and therefore is non-neutral to access
- Hinder loan product innovation, rather than reacting with measured protections to the appearance of risky products
- Overemphasize bricks-and-mortar as a regulatory screening device, rather than developing the basis of comprehensive risk assessment based on borrower and property information

Developing institutions

Dos

- Help to create co-operative lenders, savings and loans and microfinance institutions with a clearly defined target group focus
- Support institutions willing to focus on low-income households with well-defined and targeted social contracts
- Provide or facilitate activities with scale effects to low-income lenders, such as nationwide or regional diversification of credit risk and access to stable, long-term funding sources
- Subject public instititutions to the same corporate governance and regulation standards as private institutions in the same businesses
- Develop the mandate of public primary market lenders to a multifacetted enabling role and enforce constant evaluation according to analysis of market failure

Don’ts

- Allow public institutions to stay permanently in activities that can be provided by the private sector, especially retail lending
- Direct credit to low-income housing by private institutions forcibly, especially not at controlled prices

Providing infrastructure

Do’s

- Develop land and housing markets in tandem with mortgage markets, especially public service provision and land management
- Invest in information on property markets and borrowers, including provision and risk-based verification of scoring systems
- Invest in communication systems that support access to finance
- Invest in access to financial education

Don’ts

- Forget to create the infrastructure to enforce laws and protections, such as courts, consumer complaints and mediation mechanisms, or alternatives to house tenants or borrowers evicted from non-affordable housing solutions !

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