

FINANCIAL INDUSTRY MONITORING SERVICE

June 2007

A sub-prime post-mortem in an historical context

While the ramifications of the fall-out in U.S. subprime mortgage markets won't fully run their course for some time, the pullback in exaggerated concerns make this an opportune moment at which to conduct an early post-mortem on the real underlying causes and the best policy response. This complements earlier work we've done on the modest economic impact of mortgage market challenges.¹

Though on the surface it may seem correct to simply blame recklessly misguided underwriting practices, park each of the culprits in a pillory and get on with things, this wrongly blames the symptoms and not the deeper causes of the problems. To understand the true causes involves understanding the spillover effects of how U.S. retail banking markets have been regulated for almost two centuries. Whereas the U.S. economy sets the standards for other countries on multiple counts, its notoriously unstable and fragmented retail banking market has been a breeding ground for many regionally focused surges in instability and provides lessons on precisely what not to do in regulating a market.

Unfortunately, it is the first approach that is holding court these days through little more than a heavy handed crack down on lending standards and practices. The unintended and myopic consequences are sure to take the form of harming the very same borrowers who are allegedly being protected and to do so by tightening credit standards and regulatory costs, while raising the cost of borrowing for everyone including legitimate borrowers. The result may well be tantamount to tossing the baby out with the bath water by harming an abused but good product - or worse if a credit crunch is sparked.

A lasting price tag on a history of populist policies

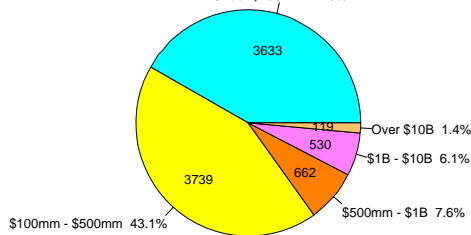
Faulty market regulation over a very long period of time defined the fragmented market structure that not only sparked sub-prime problems, but many other periods of banking turmoil in U.S. history. These include - among others - the thrift crisis of the 1980s and early 1990s, several Florida real estate bubbles, and the 50% decline in the number of banks during the 1930s. The price tag for faulty market regulation in the past has not dwindled to zero, and it won't for some time as market forces respond to fairly recent and better advised legislative changes by creating a more diversified nationwide banking system with far fewer banks.

Witness charts 1 and 2. To this day, the United States still has about 7,400 banks and 1,300 thrifts for 8,700 combined, of which 93% have assets of less than US\$1 billion and 42% are under the puny US\$100 million asset cut-off. This is well down from the 17,900 banks and thrifts that existed in the mid-1980s, but it is still the case that only about 650 of these banks and thrifts have assets over US\$1 billion, only 119 are over \$10 billion and only 14 have assets over \$100 billion.

CHART 1

Many small players...

Share of total number of banks and thrifts by asset size category, 2006

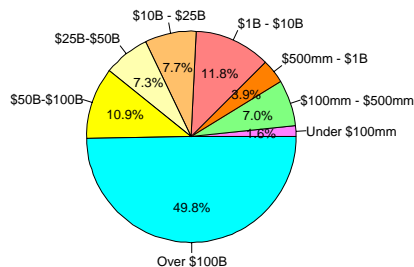


Source : Federal Deposit Insurance Corporation

CHART 2

...in a very fragmented market

Share of total assets of banks and thrifts by asset size category, 2006



Source : Federal Deposit Insurance Corporation

Derek Holt
 Assistant Chief Economist
 416-974-6192
 derek.holt@rbc.com

¹ For more on the impact of mortgage market problems, see [“Why U.S. consumers can withstand weaker housing markets,”](#) December 2006, RBC Economics Research. Also see [“Outlook for North American household finances,”](#) March 2007, RBC Economics Research.

To be fair, it is with little doubt that the United States has one of the most innovative banking systems in the world and is a mecca of capital market activity that sets the standard for the upper-tier of corporate and sovereign financing markets across the globe. The same cannot be said for U.S. retail banking markets for households and small- and medium-sized enterprises. The United States has inherited a policy climate from the days of President Andrew Jackson within which fragmented, localized banking monopolies emerged based on a philosophical mistrust of centralized banking principles.

This happened for two main reasons. First was President Jackson's famous campaign against the dominant Second Bank of the United States in the early 1830s. Though it was widely perceived as corrupt, his solution to reining in the Second Bank was not to reform it, but to kill it by withdrawing its charter on largely ideological grounds. At a time when many European countries were pursuing centralized banking principles, Jackson's campaign set back progress towards centralized banking until the Federal Reserve System was created in 1913. In the intervening period, the U.S. experimented with so-called "free banking" in which localized and inefficient capital distribution resulted from the plethora of local and state banks that then came into being. This, in turn, caused a crisis through soaring debt among individual states, rapid inflation, and the Panic of 1837 followed by the deep recession of the time. This was one of the first lessons in U.S. history to the effect that a populist approach to bank regulation could cost the economy dearly. The longer term consequences entailed setting a policy bias in favour of small, localized banks that would dominate regulatory practices straight up to modern times. A relatively more recent example has been the Community Reinvestment Act that set quotas for banks to lend in depressed regions such that huge debts have been traced to people of modest means.

The second reason is that while the U.S. had finally moved towards centralized banking, it took until 1994 for the Riegle-Neal Act to finally remove the prohibition against *interstate* banking and branching that had come into being through the McFadden Act of 1927. Retaining this prohibition for such a lengthy period of time essentially headed off the development of a nationwide banking system marked by efficiently diversified lenders operating at higher economies of scale. As a side note, it also took until the Gramm-Leach-Bliley Act of 1999 to sweep away barriers to commingling commercial and investment banking activities long after most other countries had done so.

Whereas policy has wisely changed, it will continue to take much more market consolidation before the U.S. has truly efficient nationwide banking markets with far fewer and more diversified financial institutions. If the U.S. had always allowed nationwide banking like many European countries and Canada, then it would have many dozens of banks over \$100 billion in assets in proportion to its size. Instead, truly nationwide diversified banks are rare in the U.S., if they exist at all as most of the biggest banks are localized money-centre, regional, or bi-regional banks. The result has always tended to be

inefficient diversification along product, industry and regional lines. Most of the worst subprime problems - and certainly the failures - have been focused at relatively small, undiversified lenders. Some larger institutions witnessed souring portfolios - some due to very poor market timing and execution - but their diversification and portfolio limits enabled them to absorb short-term earnings hits.

Enter the monolines

Enter the monolines that focus upon one or a handful of products. They rose from the interstate regional banking pacts created by some state legislatures during the 1970s and 1980s and that chipped away at banking and branching restrictions by inviting monolines to set up shop and essentially circumvent such restrictions with less if any regulatory oversight.

In this context, sub-prime mortgage monolines that are often focused on narrow regions and that have failed or remain on life support are nothing new to U.S. retail banking.

Many monolines also suffer from the lack of an FDIC charter enabling them to raise deposits. They, in turn, essentially operate as high-volume funding pass-through structures that depend on highly liquid markets to raise large amounts of funding at market, package loans and rapidly sell them off. Any shock to liquidity conditions in this business model will spark problems that a firm with a stable deposit franchise would be able to weather more successfully through the ebbs and flows of the cycle. The moral here is that a deposit franchise matters — a lesson learned by past monolines that escaped much of the recent turmoil essentially by securing FDIC charters at some point in their development.

Adverse incentives made matters worse for monolines that lack an FDIC charter. Creditors and investment bankers that once funded such pass-through structures suddenly turned off the taps when sentiments soured, only to then announce that acquisition opportunities now existed in the U.S. subprime market.

Good product, bad management

By corollary to this market structure thesis, don't blame the product itself. Sub-prime lending is an important part of a complete market for retail credit where there is room for a full spectrum of products at all risk-return trade-off points. A good credit product, however, obviously still needs to adhere to sound underwriting principles. Granting a loan without requiring proof of employment or income, while waiving property appraisals and dropping supporting document requirements may work in Tony Soprano's world, but such steps represent an abject failure of management at the worst of offending sub-prime lenders. They are not a product failure per se. Indeed, a systemic failure occurred in due diligence proceedings by many stakeholders in holding management accountable.

While stronger management checks and balances could have mitigated the excesses, management operates within the confines of a

market structure that is significantly defined by public policy. Better market structure can beget stronger management, so in that sense a system that inherently discourages diversification and keeps lenders relatively small will breed bad management and cause far too many fires for competing regulators with limited resources to chase around.

Not recognizing this - and instead choosing to make the product itself the target of onerous restrictions - risks neglecting the lessons provided by the history of financial innovation. Markets tend to find ways of remaining one or two steps ahead of this type of product-focused regulation. Examples include Regulation 'Q' that set caps on deposit rates only to be overridden through payment in kind such as free toasters. When regulation 'Q' was lifted in the volatile interest rate environment of the early 1980s, the stage was set for the thrift crisis. Another example was the Interest Equalization Tax that attempted to head off U.S. dollar outflows through a tax on foreign borrowings in the United States. When combined with freezes placed on Soviet and Arab country deposits, the U.S. government essentially created a massive incentive to develop offshore Eurodollar markets. The lesson here is that the government that regulates the best is the one that focuses on setting the right overall market structure.

Mind the gap and credit scores

A characteristic of relatively small, undiversified lenders is the use of unsophisticated approaches to managing interest rate and credit risk. Whereas the top U.S. and international banks place a premium on corporate treasury and risk management functions, the same cannot be said for the overwhelming number of U.S. banks. A core element of the past success of sub-prime lenders was a sharply upward sloping yield curve that emerged after the dot-com and 9/11 shocks to the U.S. and global economies. Sub-prime lenders — particularly those lacking deposit charters — were able to heavily lay on short-term funding of long-term mortgages before packaging them off. Essentially, the maintenance of this business model was a huge bet on the future direction of interest rates and spreads between long and short products. Markets did not co-operate. By 2006, an inverted yield curve had arrived with short-term rates surging slightly past long-term financing rates. As short-term funding became much more expensive, the tide turned on sub-prime lenders. Most corporate treasury operations at sophisticated financial institutions would not have been allowed to let that happen. For one thing, at least the size of an interest rate bet is more likely to be known. For another, controls at lenders with sophisticated treasury practices put caps on the amount of capital that can be leveraged on a particular yield curve view.

As for risk management functions, inadequate portfolio constraints and monitoring at subprime lenders shoulder much of the responsibility for what went wrong. Further, this episode strengthens the

need for more developed credit derivative markets for hedging purposes but also to provide markets with multiple ways of imposing discipline even if risk management functions fail.

Conclusion and policy recommendations

In shifting the focus for what went wrong away from the product and towards the system within which it grew, there are several key lessons for policymakers in the United States and other countries.

First, there are no quick fixes to reversing many decades of bad policy. The best thing that can be done is to speed up the consolidation forces at play in the U.S. banking system, and consolidate the sheer number of competing regulatory agencies into one voice with more teeth and concentrated use of resources in order to expand the reach of audit programs. Creating a more level playing field by bringing less regulated lenders fully into the fold is critically important to this aim. Also, the Riegle-Neal Act should be strengthened, since it still allows individual states to control *intra*-state branching for both state and nationally chartered banks which slows progress towards a national banking system.

Second, it takes two to tango with mistakes made by borrowers and lenders alike and recognizing this means placing more importance upon formalized financial education that is sorely missing from the school system in many countries.

Finally, the lesson for foreign markets is four-fold. Developing countries should not look to the U.S. for best practices on how to design and regulate a retail banking market. Second, just because the U.S. has thousands of banks unlike most other developed economies - even in proportionate terms - does not mean it is a superior, more competitive or stable system by any means. In fact, most evidence shows that retail loan spreads and fees tend to be higher. Third, other countries that are pursuing product innovation are not necessarily destined to repeat the U.S. subprime experience given vast differences in the structure of their own markets. The prospect of unsound management exists the world over, but the probability and consequences are highest in U.S. banking markets. Fourth, as in the U.S., keen attention should be paid to small, less regulated, less sophisticated and less diversified lenders.

In all, the risk of damaging policy is high. Lending crises are the price to pay for a chosen political path in U.S. history. Subprime challenges are not the first crisis, nor the last stemming from a highly fragmented retail banking market. But, dragging out the influences of subprime challenges by imposing onerous regulatory and compliance costs will only interfere with the necessary movements towards a fundamentally sounder banking system and hit hardest the people whose interests are supposedly of concern.

© Royal Bank of Canada. The material contained herein is the property of RBC Financial Group and may not be reproduced in any way, in whole or in part, without express authorization of the copyright holder in writing. The statements and statistics contained herein have been prepared by RBC Economics Research based on information from sources considered to be reliable. We make no representation or warranty, express or implied, as to its accuracy or completeness. This publication is for the information of investors and business persons and does not constitute an offer to sell or a solicitation to buy securities.