Consumer Finance Group

Update

Trends and issues facing the consumer finance industry

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Strategic and operational leading practices

Top seven lessons learned from the summer of 2007

The industry has been challenged in the past, but the recent events of this summer's correction reflect perhaps the most rapid deterioration of a market in recent memory. While some companies were forced to exit the residential lending business, and some were focused solely on changes they needed to make to survive, other firms viewed the past several months as an opportunity to position themselves for growth. As a result of the varied impacts, opportunities and industry changes resulting from recent market events, several trends and lessons learned have emerged among industry participants:

1. **Size:** As we entered 2007, we saw that 54% of the industry's loan servicing was controlled by the top 5 servicers.[1] As we delve deeper into this new market, and begin to quantify the impact of reduced investor demand, fewer originators and increased regulatory scrutiny (both federal and state), we see that those same servicers have maintained their market presence. From this perspective, we can see the impact that scale can have on a company's ability to maintain market share and weather a bad—or, in this case—perfect storm.

   Lesson learned: **Scale is king**

2. **Core competencies:** While larger originators in many cases remained true to their origination and servicing strategies, several smaller lenders felt the effects of diversifying beyond the strategies that made them successful. Whether it was investments in title companies, execution strategies, legal entity structures or retaining servicing, many of the companies who exited the industry this year also had very diverse strategies that were likely different from their strategies of 2003, 2004 and 2005. From this perspective, maintaining focus on your core competencies, while carefully evaluating the benefits and risks associated with alternative strategies is important to managing the business in good and bad times.

   Lesson learned: **Don't get distracted**

3. **Back to the basics:** The survivors thus far, have been the companies with the more traditional banking models, who have the ability to leverage a large retail deposit base as a funding source for non-agency mortgages. These companies have the ability to leverage their balance sheet to fund loans. Similarly, having the ability to leverage a strong balance sheet allowed many to take advantage of market opportunities by acquiring select components of failed lenders, providing liquidity to strategic partners, emphasizing investment in prime portfolio products and enticing competitor sales staff to join their platform. As part of the markets rapid change, many companies saw their ability to originate non-conforming product deteriorate and loan performance weaken—the need to right size their organizations became more apparent. While destructive to some, other companies were able to cushion the impact of these and other issues as other products/services performed well.

   Lesson learned: **Balance sheet matters**

4. **Relationships:** As companies have competed for production at any cost in recent years, many lenders have relied less on establishing direct relationships with their clients and leveraged Third Party Originations to fuel their growth. Based on recent industry events, and as companies have been forced to re-evaluate their origination strategies, many have determined that since customer relationships remain local, to compete they must take a more pro-active approach to managing the customer experience. From this perspective, and in consideration of the growing third party origination volume by many lenders, considering customer needs, delivery capabilities and process transparency has become a top priority to maintain or improve market share.

   Lesson learned: **Relationships are local**

1 From *Inside Mortgage Finance*

5. **Managing risks:** While many companies felt that they had sound risk management practices, recent market events caused many to re-evaluate their risk management strategies. From market risks to operational risks, companies have taken a step back to determine if they are engaged in relationships with customers that share in their values and provide high quality, profitable production volumes. Understanding risks, benefits, margins and opportunities within the business and/or individual lines of business has received increased focus and in some cases forced firms to exit the business—or specific components of the business.

   Lesson learned: **Understand your risks**

6. **Liquidity:** We had become accustomed to a constant willingness of investors to purchase virtually any product, yet that appetite quickly disappeared, leaving many to evaluate their disposition strategies on illiquid products and their expected losses on those products. However, some companies began to see the warning signs in these products earlier than others and began utilizing more conservative loan sale strategies (e.g., small bulk or flow whole loan sales) to limit risk in the event that demand dried up. From this perspective, understanding product concentrations and making a realistic assessment of product risk will become more prominent in the future as the impacts from recent origination vintages (e.g., fraud, loan quality/repurchases, etc.) may affect results in the future.

   Lesson learned: **Liquidity is not always liquid**

7. **Agility:** As the refinance boom ended and some semblance of normalcy emerged, the market became more and more competitive. As part of this reduction to historic volumes, many companies shifted focus to certain initiatives that they believed would provide a strategic advantage in the market place (e.g., price elasticity strategies, workflow, new LOS systems, proprietary AUS systems, etc.). At the same time, new regulatory (e.g., non-prime mortgage guidance) and accounting rules (e.g., FAS 156, 157, 159) emerged. While these initiatives are unique in their own right, constant change is nothing new to veteran mortgage bankers. From this perspective, those companies which are well coordinated in managing their various initiatives, able to quickly adapt to change, and maintain a platform nimble enough to exploit market opportunities will continue to have a leg up on their competition.

   Lesson learned: **Change is good**

The industry has experienced a rapid transformation and continues to adapt to almost daily issues. However, in the wake of all adversity there remains opportunity—this market is no different. Recognizing and understanding core competencies can help participants identify and target profitable production, adapt quickly to market dynamics, and enhance relationships; all of which can give companies a leg up on the competition. These factors will create opportunities to grow in this market and position companies as leaders in future markets.

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The mortgage profitability Grail?

Now more than ever, lenders are looking for that one item or initiative that will help them enhance their profit margins. Yet more often than not, it is not just one item; it is a group of smaller items and initiatives that add up to the margin improvement lenders are looking for. Pricing is one of these areas of current focus as investing in pricing often yields immediate results.

However, as pricing strategy has become more complex, a simple investment in pricing may not yield the expected benefits. As a result, we typically see a 5 step process to develop, implement and manage a modern day pricing strategy:

1. Creation of the pricing vision and governance models
2. Redefining competitive analysis
3. Benchmarking production
4. Understanding profit margin variances
5. Optimizing loan prices

Creating the vision and governance

The first step in realizing the benefits from developing a more strategic and comprehensive approach to pricing is establishing the appropriate governance and framework and working with senior management to reach a consensus on the vision. If management has conflicting interests based on individual goals, companies will fail at implementing strategies. For example, in many organizations. Production is compensated based solely on volume, whereas Finance may be compensated based on profitability. This disconnect creates conflicting interests. In addition, an effective framework involves determining the companies pricing strategy, which involves developing the tools to monitor competitors in geographic markets.

Redefining competitive analysis

Analyzing mortgage market competitive analysis can be daunting as there are approximately 50-60 “basic” products to look at, excluding Alt-A and sub-prime. Multiply these basic products by more than 50 markets and it is no wonder that competitive analysis can quickly turn into a daily science project. As a result, many lenders focus on a few key regions to confirm they are in their desired competitive range. However, after a corporate pricing strategy has been developed, building the tools to monitor all surveyed products in all markets on a daily basis and developing trend reporting can be well worth the investment, given the potential profit returns of understanding product nuances within each competitive market. In many instances, Production knows the markets and competitors best and creating an effective process for receiving their feedback on competitiveness can be very important. As mentioned earlier, some lenders are beginning to change the way production is monitored and compensated in order to align employee goals throughout all levels of the organization.

Benchmarking production

A recent trend with mortgage lenders has been shifting away from the traditional volume-based approach to lending and instead focusing production units on winning profitable transactions and customers. This is easier said than done and in many cases can be like turning a large ship for the lenders that are undertaking this change. In order to begin to make the turn, organizations need to focus on profitability production metrics. For example, senior management should be focused on identifying and increasing production with the most profitable loan consultants, correspondents and brokers. In this regard, volume should be a factor, but not the primary driver of compensation. Reporting is essential when shifting

from a volume-based approach to a volume and profit-based approach and relative scorecards will need to be developed to track performance. Supplemental TPO performance metrics (e.g., loan quality) should also be considered as part of the price discussion. For example: on-time file delivery, fallout, repurchase levels, lender-paid lock extensions, and rate renegotiations will provide lenders more leverage when discussing compensation and pricing strategies. If incremental value, or cost, can then be attributed to the metrics tracked, relationship profitability can be better understood and relationship level pricing can have a profound impact on profitability.

By leveraging this type of analysis, lenders are discovering that their traditional best (highest volume) customers are not as highly profitable as once believed, since many times along with their high production volume, higher incentives are paid, excessive pricing exceptions are made, and they may have elevated fallout rates. Conversely, some of the most profitable customers may be receiving a non competitive price given their relatively low production volume. This type of information becomes increasingly valuable when determining TPO and/or retail profitability and how to include it as part of the pricing strategy.

Understanding profit margin variances

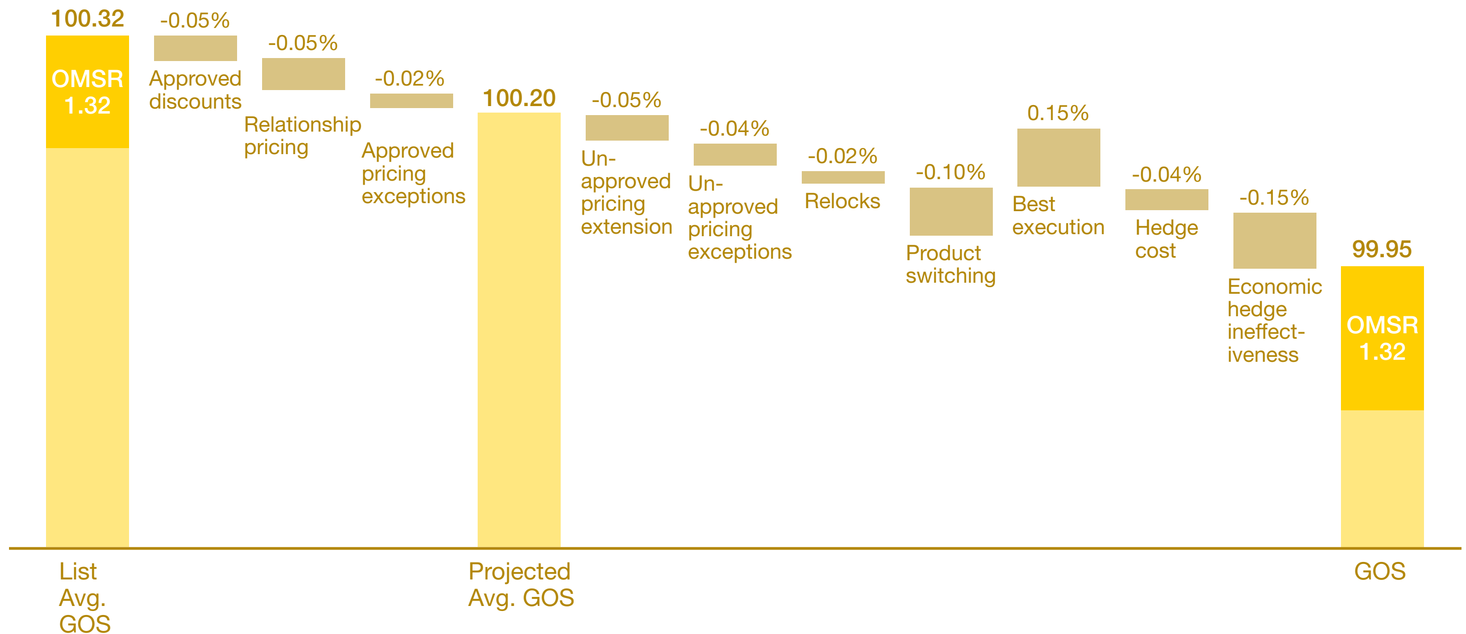
One of the biggest challenges mortgage lenders deal with today is understanding the differences between their projected margin at rate lock and their actual margin at loan sale. Many times lenders are left scratching their heads over what happened to their expected margin. In order to successfully track the variance, a process to separate out market versus operational variances needs to be developed. The market variances are generally easier to track and include items such as changes in market price, subordination levels, g-fee buy ups/downs, or re-slotting. Operational variances can be more challenging to track and typically encompass things like product switching, pricing exceptions, rate re-negotiations, and note rate changes. These types of operational changes can be accounted for in several ways including creation of a daily loan level transaction database that accounts for pipeline changes, or developing the functionality in the LOS to track the changes as they occur. The charts below and on page 6 are an example of the type of reconciliation analysis that can occur.

Target vs. actual GOS analysis

Product	Target GOS	Actual GOS
3/1 LIBOR	0.40	0.38
5/1 LIBOR	0.50	0.55
30 year Conforming	0.35	0.28
15 year Conforming	0.40	0.43
30 year Jumbo	0.20	-0.05
Option ARM	0.75	0.77
Alt-A 30 year	0.60	0.62

This type of analysis can be invaluable to management as it can highlight not only what their current policies are costing them, but also where the profit leakage is occurring, and who are their most profitable customers. The analysis can be taken further to understand not only the cost per customer but also the customer's willingness to pay.

30 year Jumbo—March



Utilizing profit optimization

Pricing elasticity of demand analysis is used to determine the relative change in volume expected for a given change in price. This type of analysis can be extremely valuable when determining customer pricing segments. Not only can elasticities be determined by market, product, and customer, but they can also be used to determine which variables within products certain customers perceive to be more valuable. For example; what characteristics define the most price-sensitive customers and which markets and products are more elastic? These are the types of questions lenders can use to ensure they are delivering the best value to the right customers.

The possibilities of pricing elasticity of demand analyses are endless and the answers may lead to changes in how products are priced, structured, and ultimately offered to customers. However in the near term, the analysis can define new perspectives in consumer behavior and, ultimately, the attributes that define customers and their value. If lenders can drive more analytics into this area, determining the price the customer is willing to pay will drive higher profits.

In order to be successful in today's volatile and competitive market, lenders must employ multiple tactics and techniques related to mortgage pricing and profitability analysis. There is not any one solution but a combination of solutions that will determine the future leaders in this space. While some of the solutions require longer term commitments (up to 12 months), there are many short-term strategies that can be employed today to start yielding profitable results.

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Loan origination system functionality for the next generation of correspondents and brokers

The recent upheaval in the mortgage market has caused a significant slowdown in origination volume as mortgage originators shore up credit risks and return to a more “hands-on” approach to underwriting. As a result of this flight to quality, historically cost efficient, high volume producing origination channels such as correspondent and broker channels, have contracted considerably over the past year. However, as with past market downturns, better times are likely to return in the future. The question is: When new market opportunities present themselves, will your firm be prepared?

Speed to market requires measured, innovative investment in firm infrastructure during downturns in order to capitalize on future market improvements, which has become more important than ever in the current market.

There are many lessons to be learned as a result of recent market changes. Among these are 1) volume at the expense of credit quality is a dangerous trade-off; 2) in tight margin markets, cost control and efficient and effective origination procedures impact customer relationships as well as the bottom line; and 3) while outsourced origination channels can enhance the nimbleness of a lender, correspondents and brokers require a significant investment in pipeline and data management tools in order to be both competitive and be safe alternatives to traditional retail/branch lending. As new products are developed to address the needs of current and future borrowers, lenders will once again look both internally and externally for ways to bring their products to the marketplace. Correspondent and broker channels represent cost effective ways of addressing these future volume needs.

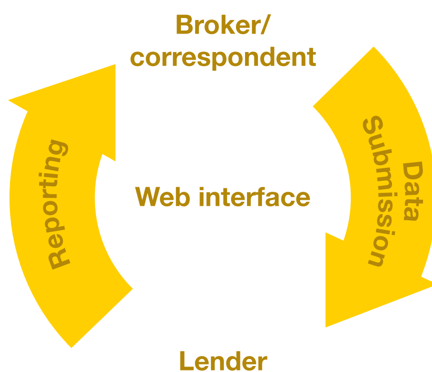
With fewer outlets for third party originations, the remaining correspondents and brokers will require improved turn times, increased self service capabilities and improved transparency into their pipeline. As a result, downstream lenders looking to capitalize in a new lending environment will be forced to upgrade current systems and processes to address the needs of the ever changing lending market. With a renewed focus on automation, coupled with further enhancements to internet communications, loan origination systems can no longer simply be seen as internal pipeline management tools but as another component of the overall production platform.

In tomorrow’s lending environment, companies will have to listen and become more responsive than ever to customer needs by aligning system functionality with market demands and stressing point of sale capabilities as a sales and support driver. Establishing interactive interfaces with lenders’ internal systems may improve correspondent and broker customer satisfaction and increase brand loyalty to the lender by improving turn times, allowing for automated loan delivery, scenario modeling, best price execution, single application bundling for use in piggy back transactions, self managed user profiles, and image to image capabilities.

As we’ve seen in past markets, it isn’t always the lowest price that drives volume. “Fair” pricing coupled with a focus on meeting and exceeding broker/correspondent service expectations increasingly wins out over “low” pricing and average service. Low hassle relationships with lenders generated by user friendly web interfaces reduces broker/correspondent “lender shopping” and likely reduces costs for both the lender and the broker/correspondent.

One lesson from past high volume markets is that each failure to adequately “push” data back to brokers and correspondents represents a missed opportunity—both from a service and cost management perspective. Every point of contact during a current sale is an opportunity to make future sales and solidify customer relationships. Right time reporting and data transparency build integrity and trust and improve pull through rates. This is beneficial to both the customer and the lender as it drives up applications and reduces hedge costs related to fall-out. Through enhanced web-portals, lenders can increase contact with correspondents and brokers by making the use of the portal a part of the correspondent or broker’s origination process.

Web interfaces and functionality are becoming increasingly essential. Web interfacing system functionality allows lenders to communicate product and credit requirements to correspondents and brokers through self managed user profiles.[1] Further web functionality allows for the facilitation and management of "personalized" rate sheets and allows for automated rate locking at the time of loan submission. Loan submission interfaces with broker and correspondent systems can also be established to allow for the electronic uploading of Form 1003 (Uniform Residential Loan Application) and Form 1008 (Uniform Underwriting and Transmittal Summary) data, as well as the electronic submission of image to image loan documentation. These interfaces reduce underwriting turn time and lower document retention and compliance costs.



In addition to front-end communications, such as rate locking and credit requirement communications, web interfaces also allow for improved "data push" back to brokers and correspondents both during the underwriting and purchase review process as well as post close. Automated pipeline dashboards can be utilized to provide right time and/or real time loan review status updates, much like updated stock quotes. Such dashboards provide brokers and correspondents with a lender managed view into the lender's systems. Timely e-mail reporting of loan review exceptions and status are also currently providing lenders with improved communication methods and reporting tools through which they can manage the underwriting process, improve turn time and lower pipeline management costs. Delivery of initial and final commitments, as well as closing packages, can also be accomplished through the use of secured e-mail and web servers.

With that said, aggressively pursuing volume infusing correspondent and broker channels can increase a lender's risk level. Monitoring the underwriting standards and origination practices of these outsourced lending arms is critical to the ongoing success of the downstream lenders. Web interfaces and automated underwriting engines can assist downstream lenders as they manage the risk/reward interplay associated with external origination arrangements. Further risk mitigating features of advanced loan origination systems, such as regulatory compliance monitoring and reporting functions can also be established to help lower potential problems suffered by lenders during previous high volume markets.

Low volume periods can be seen as an opportunity to dedicate otherwise unavailable staff to internal system enhancements that can be advantageous when markets rebound. Measured investment and proper planning can improve a lender's speed to market when new opportunities present themselves. Will you be ready?

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1 Note: Firms choosing to deploy self managed user profiles need to consider broker licensing requirements prior to deploying such system functionality.

Managing change: Four critical steps that can help make your next project a success

The recent turbulence in the industry has resulted in more changes, at a more rapid pace, than any other time in recent history. Companies are merging, being acquired, re-focusing on more liquid agency products and reorganizing to realize competitive advantages. As part of this process, many companies have recognized a need to be increasingly nimble, and are looking inward to determine how their historical drivers of success can be leveraged in the changing marketplace. While reactive measures to market events have been necessary to survive, companies are increasingly re-evaluating prior efforts to reduce costs and gain strategic advantages as they enter 2008.

With borrowers, originators and Wall Street all increasingly anxious about the mortgage industry, it is important to approach change with a strategy. Yet many companies are either unaware of the importance of a change strategy, or are unaware of how to implement a change strategy. This article discusses the four key steps for change management, why change management is important and approaches to manage each step in the change process:

Step 1: Preparing for change

Preparing for change is the foundation for a successful change management strategy. While many organizations choose to skip this step in favor of implementing change quickly, a sincere attempt to adequately prepare for change can help avoid typical barriers to success such as problems envisioning the future and a lack of leadership support.

When preparing for change, the following actions should be considered:

- Review and confirm that senior management shares a common view of the identified changes.
- Analyze existing change and project initiatives to support optimal scheduling and identification of synergies with multiple change initiatives.
- Identify key stakeholders and commitment levels to enable change leaders to create a governance infrastructure and address commitment issues early.
- Evaluate organizational capacity in the planning phase and provide sufficient time to develop critical change management competencies before rolling out changes.
- Confirm and identify business drivers and key objectives to confirm that each change is consistent with the vision and strategic plan.
- Consider the corporate culture and change readiness to provide change leaders a preliminary baseline of challenges associated with implementing changes.
- Identify potential enablers and barriers to the change process to begin preparation for roadblocks early in the process.

Once the change leaders are confident that preparing for change has been thoroughly addressed—which may be a long and iterative process—the next step is design the change plan.

Step 2: Designing change

Designing the change program and planning the approach to implementing the change is a key component of the change process as it determines the means by which day to day changes of the initiative will be introduced to the business. This design phase includes building the framework for the change implementation, where resources, roles and responsibilities are documented, schedules are developed based on timeframes and deadlines, and training requirements are identified. In short, companies should consider the following when designing their change program:

- Aligning leadership and consensus building to confirm leadership's support during the execution of the change initiatives.
- Establishing change program governance to mobilize and empower project teams to make decisions regarding change management initiatives.
- Develop a communication strategy to define the way in which the change leaders will build commitment of the new vision throughout the organization.
- Analyzing training needs to clarify the impact of the change throughout the organization.
- Involving and educating sponsors and change agents (individuals who have influence on employees throughout the organization) to confirm that they will be responsive to issues and questions that may arise in the execution phase.
- Alignment of the culture and organization to integrate the change strategy with existing organization design and culture.

Step 3: Executing change

The execution phase is largely shaped by steps 1 and 2. At a high level, this step encompasses the ongoing coordinating of all activities related to the enablement of change. More specifically, the basic components that are addressed in the execution phase include:

- Alignment of organizational structures to confirm they support the changes being initiated.
- Development and piloting of training materials completed in alignment with the learning objectives identified in earlier phases.
- Delivery of training including the development and implementation of a detailed training delivery plan, materials production and distribution, and setup of training logistics. Providing the right skills to the team will help them manage their responsibilities and increase their acceptance of the change initiative.
- Evaluation of training and development to establish training measurements which incorporate feedback to confirm targets are met.
- Identification and measurement of Key Performance Indicators to confirm the business is on track with stated goals. Reviewing or creating these performance management metrics and other measures will drive alignment with change.
- Execution of the communications as defined by the communications strategy will help build commitment for the vision. Communication is oftentimes the most critical component in establishing the need for change, gaining support, establishing a sense of ownership and addressing critical challenges.

Step 4: Reinforcing change

A successful implementation doesn't end once the change has been executed—to support success, the change must be reinforced, measured and tweaked to maximize performance. During this final phase, the effectiveness of change is analyzed. There are three steps to this phase:

1. Monitoring organization performance enables change leaders to be knowledgeable about where change initiatives are and are not succeeding.
2. Communicating successes highlights benefits of new strategy and promotes optimism about changes.
3. Soliciting feedback and making adjustments will involve team members at every level of the organization to feel involved in the change, and therefore enhance their commitment and support for the changes.

Following implementation, the change management stakeholders should continue to engage in the reinforcing change activities until the change initiative has been incorporated as part of the organization and is no longer viewed as a "change."

The Change Management process is an iterative one, and adequately planning, designing, executing and reinforcing is crucial to success. While this article highlights the key tasks included in Preparing for Change, Designing Change, Executing Change and Reinforcing Change, organizations must be flexible enough to adapt these tasks to fit their specific change initiative and organization.

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Looking down under for a bright spot in the credit crunch

Despite the global market turmoil, Australia has been partially insulated from the credit crunch. This is partly because non-conforming loans (Australia's equivalent of subprime loans) account for only about 1–2% of the country's $900 billion total mortgage market and the "teaser" loans of the US market don't exist to nearly the same degree there.

As the US subprime mortgage market has generated worldwide tremors, Australia's five major banks—ANZ, CBA, NAB, Westpac and St George—have so far emerged from the turmoil relatively unscathed. Their resilience is reflected in their FY07 results, which show combined underlying cash earnings growing by an impressive 14.7% over the year.

The robustness of Australia's banks in the face of the crisis have allowed them avoid some of the negative perceptions that have dented the reputations of other institutions both in Australia and abroad in what has transpired to be an important test of confidence.

The credit crunch, in fact, provided a good opportunity for the major Aussie banks to grow market share at the expense of the smaller banks and non-bank rivals, since customers—both businesses and consumers—tend to look towards the larger banks during times of uncertainty. Moreover, while some competitors had little choice but to pass higher funding costs onto customers, the local majors initially used their retail deposit base and strong balance sheets to their advantage to absorb costs and price competitively.

Since the turn of the year, however, the Aussie majors have needed to pass on to customers some of the increases in credit spreads—on top of official interest rate rises—in order to protect their margins. While this has led to a growing number of defaults and foreclosures, another critical difference is that house prices are generally holding up.

On the other hand, some local Aussie investors have made losses either through investments in affected global hedge funds and unit trusts, equity holdings in affected institutions, or as a result of the general market volatility.

The liquidity crisis has also exposed weaknesses in the business models of a number of smaller Australian lenders who are heavily reliant on short-term funding and/or securitization programs. Once acclaimed for forcing down margins and delivering competition to the major banks, some are now struggling to secure funding at affordable prices. A number have been compelled to choke down their origination levels and/or raise prices on their products and consequently lose market share. Others, such as RAMS (like the UK's Northern Rock), have had to be bailed out by stronger financial institutions.

Other high profile casualties in Australia include property companies such as Centro and finance companies such as Allco. The fundamental issues again revolve around their business models and liquidity management.

Australia's top banks, however, have so far proven relatively resilient, and in some respects they have been in a sweet spot. That's mainly because their funding sources and revenue streams tend to be more diverse than those of their smaller competitors.

For highly rated banks borrowing wholesale funds, the credit spreads have not widened as much as they have for lower-rated banks and corporations. And as well as tapping the wholesale funding market, the majors get cheaper and more stable funding from retail and business deposits unlike many of their smaller counterparts.

In addition, the major banks diverse revenue streams means that even though rising funding costs might reduce profitability on straightforward lending operations, revenue in other areas, such as wealth management, is holding up. This diversification helps to minimize profit volatility.

Another advantageous phenomenon is that large Aussie banks tend to benefit at the expense of rivals during any significant market disruption. Under such circumstances, more money gets placed in bank deposits, which are perceived to be safer, and borrowers prefer to deal with the more stable, trusted players.

The large banks' advantage in these new market conditions is plain enough. The question is what they will do with it. The conditions won't stay so favorable forever. For instance, confidence will return to the capital markets and the levels of corporate debt raisings and securitization will return eventually, albeit perhaps not at the prices seen immediately before the crunch.

The biggest question would seem to be over variable home loan rates. At the time of writing the major Aussie banks have been trying to contain interest rate rises, and have absorbed some of the incremental funding costs. The intent has been that reduced margins would be more than offset by market share gains. But most of the majors have announced that rates will need to be increased even further.

Some banks might also use the present market advantage to attack or grow a particular market segment. For example, some might consider a strategy that most have long supported in theory: a differentiated pricing approach that rewards the most profitable and loyal customers and turns them into advocates of the bank. Offering favorable rates and conditions to selected key customers might, in combination with service quality, persuade some to recommend the bank to others.

Having said all this, the market turmoil is definitely hurting the majors too. In recent weeks their share prices have tumbled on fears of further widening in credit spreads. And while the Australian equity markets have been re-priced, there is some concern that property is yet to go through that process.

So although the Australian banks have so far managed to avoid the worst of the global credit crunch, it would be unwise to be complacent. The Aussies feel they are in a new era of risk, with household debt at all time highs and a question mark over serviceability as interest rates continue to rise. The ripples of the US subprime collapse are also being felt by investors and, indirectly, businesses as a result of increased credit spreads. Oil prices, labor costs and the weak US dollar all point towards further pressure on certain businesses and an expectation that credit losses will continue to increase, albeit from a low base.

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A surge in FHA mortgage origination volume: How do lenders prepare for the business?

Over the course of 2007, there were many changes in the mortgage banking industry: the collapse of the non-prime market, record high delinquencies and foreclosures, and government participation in re-evaluating credit standards and lending practices.

As market demand eroded and subprime lenders have almost disappeared, many of the products and lending options available to borrowers with less than perfect credit did as well. As a result, consumers were unable to refinance into more affordable terms as their rates reset causing delinquency and foreclosure rates to rise. In response to these and other issues, on August 31, 2007 President Bush announced that FHA would enhance its refinance program and help certain homeowners avoid foreclosure. The new program, known as "FHASecure," was designed to bring stability to the real estate market by providing customers, who currently have high rates, an avenue to refinance their mortgages, thereby avoiding foreclosure. Some highlights of the new FHASecure program include the following:

- The mortgage being refinanced must be a non-FHA ARM that has reset.
- The payment history must show that the mortgagor was current for six months prior to the reset.
- In certain circumstances, where there is sufficient equity in the home, missed mortgage payments may be included.
- Mortgagees must determine that the reset of the ARM caused the mortgagor's inability to make the monthly payments and that the borrowers qualify for the new FHA mortgage.
- FHA does not have combined loan to value ratios, so if the new maximum FHA loan is not sufficient to pay off the existing first lien, closing costs and arrearages, the lender may execute a second lien at closing to pay the difference.

Traditionally, FHA programs offer competitively priced mortgages, with no prepayment penalty, to borrowers with less than perfect credit. They have minimal down payment/equity requirements (3%) and somewhat liberal qualifying ratios (29/41 with some flexibility). With the lack of non-prime products available and the introduction of FHASecure, more and more consumers are turning to FHA for financing. In fact, recent results show that HUD endorsed 20,152 loans in the first 15 days in November 2007. That's an annualized rate of 1.4 million loans, which is double the actual number of loans received in fiscal year 2007 ending September 30, 2007.

In addition to the FHASecure program, the Senate passed the FHA Modernization Act of 2007 on December 14, 2007. The FHA Modernization Act more closely aligns FHA practices to the conventional market with hopes of reaching more borrowers. The Act includes:

- Increased loan limits to at least $417,000
- Use of risk based pricing for Upfront Mortgage Insurance Premiums
- Introduction of a 40-year mortgage term
- Decrease in the cash investment or down payment requirements
- Enhanced reverse mortgage products

If enacted, the volume of FHA loans being originated will likely increase even more during 2008.

How do lenders prepare for the FHA business?

At a high level, originating an FHA mortgage is the same as originating any conventional mortgage. Sales originates the loan, the loan is processed and underwritten then closed, funded and post closed. Taking a more detailed look at the life of an FHA loan, you'll find

several FHA requirements that differ from conventional loan transactions. In addition to the traditional conven-tional loan, FHA's requires:

Origination (sales):

- The lender must be an approved FHA lender.
- The lender must have an FHA Connections ID to register loans, make changes to a loan, etc.
- There is a cap on the amount one can borrow. The maximum loan amount is based on the median cost of a home in the property's geographic area. Maximum loan amounts change on an annual basis. Loan amounts exceeding the maximum allowable are uninsurable.
- FHA has a list of allowable and prohibited loan fees.

Processing:

- Loans must have an FHA case number.
- A full appraisal is required. Automated Valuation Models (AVMs) are not permitted.
- The appraisal is to be completed by an FHA approved appraiser.
- FHA insurance. The borrower is required to pay an upfront insurance premium of 1.5% of the loan amount and an annual insurance premium of .5% of the loan amount. This information needs to be included in the GFE and monthly housing payment. FHA allows approved lenders to submit the mortgage insurance application for single family borrowers through FHA Connections. The lender must:
  - — Create a FHA case number for the transaction
  - — Complete the online insurance application form. The application form requires specific information such as borrowers name and address, employment and income, loan purpose and terms, mortgage credit analysis and underwriting information, upfront mortgage insurance premium amount, etc.
  - — Submit the application to FHA

Underwriting:

- Loans can be approved through various Automate Underwriting Systems ("AUS") including Desktop Underwriter and Loan Prospector in conjunction with the FHA TOTAL Scorecard.
- Underwriters must have a Direct Endorsement ("DE") designation.
- Loan documents must be reviewed and accepted by an underwriter.
- DE underwriter must underwrite appraisals per FHA guidelines.
- Underwriter must confirm that condominiums, townhouses and PUDs are located in an FHA approved project.
- Resolve NOR (notice of rejection from the Home Occupancy Center) issues when applicable.

Closing and funding:

- Confirm all FHA required documents are executed prior to or at final docs. The documents include:
  - — Automated Underwriting Feedback Certification
  - — Mortgage Credit Analysis Worksheet (MCAW) signed and dated by the DE Underwriter
  - — Evidence of Social Security Number
  - — Mortgagee Assurance of Completion (if applicable)
  - — Compliance Inspection Report countersigned by DE Underwriter

- Wood Destroying Insect Infestation Report
- Local Health Authority's Approval
- New Construction Exhibits
- Statement of Appraised Value
- Comprehensive Valuation Package (CVP)

Post closing:

- Submit the complete loan package to the regional Homeownership Center (HOC) that has jurisdiction over the property for review and issuance of the Mortgage Insurance Certificate (MIC).
- Monitor the status of the MIC to confirm receipt within established timeframes.
- Assist in curing loans when a temporary NOR (notice of rejection) is issued by the HOC.

Why do lenders need to plan and prepare for FHA business?

The U.S. Department of Housing and Urban Development (HUD) takes these requirements seriously and expects all lenders to follow the programs set forth by FHA. HUD conducts routine audits on program participants to ensure compliance of applicable policies and regulations and works to identify any participants who pose a high risk to FHA's insurance funds. If a lender does not follow these requirements, FHA could deem the loans originated as "uninsurable," meaning HUD will not endorse or insure the loan. There are numerous types of program violations that lead to uninsurable loans. These include:

- Operations without HUD approval or proper branch office registration
- Improper handling of escrows
- Failure to submit audited financial statements
- Submission of false information on any transaction
- Failure to meet ongoing requirements for FHA approval such as net worth, equity, payment of annual fees, etc.
- Violation of branch office requirements
- Failure to satisfy loan-level requirements for FHA insurance
- Inadequate Management and Quality Control programs to ensure compliance to procedural, underwriting and documentation requirements

Uninsurable loans could be very costly, therefore making it extremely important for the lender to implement effective processes and controls around FHA loans. If not, it could lead to one of the following HUD administrative actions:

- Letter of reprimand
- Probation
- Suspension of the FHA approval
- Termination of FHA approval
- Civil money penalties of $7,500 per each violation up to a maximum of $1,375,000 for all violations during a one-year period
- Settlement agreement indemnifying HUD of any estimated and future losses

The possible penalties and sanctions levied by HUD for non-compliance to the FHA requirements could significantly impact the lender, not only monetarily, but non-compliance could also have a serious impact on the lenders reputation in the marketplace.

As lenders prepare for the increased volume of FHA loan originations they must consider their staffing and training needs to confirm that they will be compliant with

FHA requirements. As a lender considers increases to FHA volume, and in addition to FHA/HUD requirements, lenders should also consider the following:

- Does the Sales Team understand the FHA programs and requirements? Are there enough DE Underwriters on staff?
- What training will the Processors and Post Closers need?
- Do they have the ability to monitor FHA compliance, closed loans, track trailing documents and deliver the file to HUD within the required timeframe?

In addition, it is critical for lenders to evaluate their current loan processes and loan origination systems and to have a sound quality control program in place to ensure that FHA-insured loans are originated, processed, and underwritten according to HUD requirements. In today's environment where liquidity and reputation are keys to success, lenders need to be operationally prepared to handle the surge in FHA business.

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Risk, regulatory, and accounting considerations

Automated valuation models:
Changes in the housing market require additional risk management considerations

Overview

From 2003 to 2006, the US residential real estate market experienced an unprecedented increase in the volume of real estate financing transactions. Growth was driven by low interest rates and rising property values which led to unprecedented numbers of new home purchases, refinancing of debt on existing homes, and new home equity loan transactions. During this time period, there was a need to increase the speed and lower the costs associated with real estate financing transactions. This need led many institutions to use automated property valuation tools in underwriting, risk management, and internal control activities such as fraud detection and prevention, borrower default and prepayment modeling, and loss mitigation. The combination of these phenomena resulted in an increased use of Automated Valuation Models ("AVMs")[1] for determining or confirming the value of property securing real estate financing transactions.

Over the past several months the real estate and mortgage banking industries have experienced unparalleled change. Delinquency and foreclosure rates are on the rise, causing lending institutions to re-evaluate their product offerings, credit practices and operational policies and procedures. Many real estate markets are experiencing declining values and/or uneven appreciation while other markets are flat and/or appreciating. The volatile market has made it difficult to estimate or confirm property values in many geographic areas of the country causing lending institutions to re-evaluate their property valuation processes.

On May 16, 2005, the federal banking agencies[2] released interagency guidance[3] applicable to all financial institutions engaged in home equity lending (both home equity lines of credit and closed-end home equity loans). The guidance outlines expectations for sound risk management practices for home equity lending programs. One particular element of the guidance[4] addresses collateral valuation management practices. Specifically, the guidance states that, for institutions to use AVMs to support property appraisals in a safe and sound manner, institutions must validate the AVMs periodically to "mitigate the potential valuation uncertainty" in the model, and to ensure that institutions utilize the most reliable and accurate AVM for underwriting and risk management purposes. Additionally, the guidance states that the AVM validation process must include "back-testing a representative sample of valuations against market data on actual sales."[5]

It is useful to re-visit how this guidance can be applied to manage credit risk and AVM model risk in light of current housing market conditions.

An approach to AVM validations

Validating an AVM typically requires selecting a sample of properties from recent originations to be submitted to one or more AVM vendors in order to evaluate the accuracy of the AVM and the reliability of the vendor. After receiving the AVM estimates from a vendor, an institution should analyze the AVM's performance using a range of performance metrics, statistical analyses and tests. The results of these analyses should be formally documented and analyzed, with conclusions, and the basis for the conclusions should be fully supported and documented as well.

1 AVMs are proprietary valuation models developed and licensed by vendors, or developed by mortgage secondary market participants. AVMs employ property-level information from databases and sophisticated modeling techniques to estimate the fair market value of real estate collateral.

2 Collectively the Office of the Comptroller of the Currency, the Board of Governors of the Federal Reserve System, the Federal Deposit Insurance Corporation, the Office of Thrift Supervision, and the National Credit Union Association.

3 Office of the Comptroller of the Currency Bulletin 005-, "Credit Risk Management Guidance for Home Equity Lending" May 16, 005.

4 The guidance covers a variety of risk management elements including product development, marketing/sales activities, third-party originations, collateral evaluation management, account management, portfolio management, operations/servicing/collections, secondary market activities, credit risk classifications, loan loss reserves and capital.

5 Also, the guidance refers institutions to the model validation guidance outlined in the Office of the Comptroller of the Currency's ("OCC") Bulletin OCC B-000-16, "Risk Modeling—Model Validation" that was issued May 30, 2000.

AVM property sample

According to the interagency guidance, the AVM sample must include properties that are “representative of the geographic area and property type” for which an AVM is used by the institution. The size of the sample will likely depend on a number of factors, but will be driven primarily by the size of the institution’s lending footprint, the diversity of the institution’s loan portfolio, and the number of properties a vendor will permit an institution to submit to it for evaluation purposes. This is an important consideration as an institution must be able to periodically submit a sample of properties to a vendor that is large enough to be representative of the institution’s geographic area and property types, among other factors. Institutions should consider this validation requirement when negotiating a licensing agreement with an AVM vendor. Ideally, the property sample should be based on recent transactions in which the sales price or appraised value has not been publicly recorded, and therefore the property value has not reached the public databases used by AVM vendors.

In light of slowing growth in new and existing home sales and increasing property foreclosure rates, it is becoming increasingly difficult to develop a representative sample of properties. These factors help reduce the population of recent home sales transactions from which to draw a sample. In addition, increasing foreclosure rates means that some recent sales transactions may include foreclosures sales that may not be representative of a transaction between a willing buyer and willing seller and therefore may not represent a meaningful data point for the property sample. As a result of this recent market trend, it is important to establish an on-going plan to capture representative transactions that can be used for validation.

AVM performance analysis

Analyzing the performance of an AVM is challenging because it can be evaluated across a number of different factors. Typically however, institutions evaluate AVM performance in two main areas:

- **Coverage**—the percentage of properties for which an AVM returns estimates for a given set of properties. All other things being equal, more coverage is better than less coverage.
- **Accuracy**—the precision of the AVM estimate relative to a benchmark value such as a property sales price (ideally) or appraised value. All other things being equal, a more accurate AVM is better than a less accurate AVM.

AVM coverage varies by AVM vendor. Some vendors offer AVMs that provide national coverage, while others offer regional coverage. AVM accuracy is typically measured at the property level using an error rate (i.e., AVM estimate minus Sales Price divided by Sales Price). Error rates for a group of properties in the sample can be summarized by key statistical measures: mean error rates, median error rates, or the distribution of error rates. Statistical tests, such as analysis of variance and t-tests, can be performed on the error rates in order to assess whether the differences in the error rates exist for geography (e.g., state level or county level), property type (e.g., single family detached or condominium), and property value ranges.

After completing the AVM performance analysis, the institution should document the assumptions, conclusions, and recommendations for review and approval by management.

Role of risk management and credit policy in the process

An institution's Risk Management and Credit Policy groups are critical parties that should be involved in the oversight of the AVM validation process. From a model governance and risk policy perspective, Risk Management typically has a role in defining an institution's approach (broadly) to model validation, including defining roles and responsibilities that ensure independent, objective reviews, developing policies and procedures, and establishing documentation requirements. Any AVM validation program would typically be executed in conformance with corporate standards.

As it relates specifically to the design of an AVM validation program, Credit Policy and/or Risk Management typically have a role in defining criteria for what constitutes "acceptable" uses of an AVM and acceptable performance of an AVM (i.e., accuracy and reliability). Institutions and regulators are applying more scrutiny of the performance of AVMs and studying potential risk of overvaluation bias that may be introduced by the use of AVMs in declining markets. Risk Management's/Credit Policy's involvement in defining AVM model validation standards and the acceptable use of AVMs should continue given current housing market conditions to help measure and manage model risk as well as credit risk.

How can PwC help?

PwC has AVM model validation professionals with experience helping institutions understand and measure risks associated with using AVMs and manage model risk through the design and execution of model validation programs. Our professionals can help you understand your potential mortgage and home equity collateral risk exposure as a result of using AVMs and refine your credit and AVM model risk management strategies to more effectively cope with changing housing market conditions.

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Navigating emerging model risks:
Model validation in the current economic environment

The recent downturn in the US housing market has brought to light certain weaknesses in the ability of existing risk models to forecast accurately expected credit losses—particularly for subprime mortgage products. Given the significant volume of securities backed by subprime mortgage loans, and their diffusion throughout the global economy, these events have had dramatic impacts on global credit markets and on the financial institutions holding these assets.

Furthermore, as mortgage originators respond to these events by discontinuing certain products and/or strengthening their underwriting criteria, financial institutions are also discovering that historical relationships between borrower behavior (such as default and prepayment) and economic/transaction characteristics may no longer hold in the current environment—thereby further complicating their ability to measure and manage the risks of these assets.

Given the significant importance of mortgage credit and prepayment models to the financial reporting processes of many financial institutions, and the need for these institutions to ensure the continued validity of these models—both from a regulatory and an internal control perspective—it is no surprise that these models are experiencing significant scrutiny by management, auditors, and regulators. Furthermore, in many cases, companies are addressing the weaknesses noted above by implementing changes/adjustments to these models and model-based estimates which, if not done in a well-controlled manner, further increases the risk profile of the company's financial estimates.

Our focus in the current article is to identify emerging model risk issues driven by recent credit market events, and to offer some suggestions on how these risks may be mitigated.

Validation of existing financial models

Many existing mortgage credit and prepayment models were developed based on loan performance data that reflected periods of low interest rates, high house price growth rates, and relatively permissive underwriting standards. As such, current predictions of default and severity rates from such models may be significantly understated—while estimates of prepayment speeds may be overstated. Reliance on standard backtesting results for these models to make this determination is of limited value since the model's historical predictive performance (during periods of stronger house price appreciation rates and easier credit) is likely not an accurate indicator of the reasonability of its estimates in the current environment.

One way to assess model reasonability in the current environment is by benchmarking the model's key outputs (i.e., prepayment rates, default rates, and loss severity rates) to the company's most recent experience, as well as to available third-party benchmarks for similar collateral segments and vintages. Where appropriate, the company may wish to modify its model-based estimates in response to these benchmarks with well-documented and supported adjustments. Additionally, the company should consider monitoring model performance at a more granular level to identify potential pockets of poor performance (e.g., at least monthly) and with a greater focus on vintages to identify and respond in a timely manner to material trends in model forecast errors.

Finally, the company may wish to deploy alternative forecasting techniques that make use of more recent loan performance information to assess the reasonability of its existing model's predictions. For example, in predicting loan defaults, a company could develop a "roll rate" or "transition matrix" model based on recent delinquency migration data. The results from this model,

carefully analyzed, may be useful as an additional benchmark to the estimates produced by the company's existing default model.

Consistency of multiple model platforms

In many companies, there may be multiple credit and prepayment model platforms used for various purposes—such as risk management, estimation of Allowance for Loan Loss ("ALL"), estimation of asset/liability fair values, etc.; for example, a company may have its own internal prepayment model that it uses as part of its ALL estimation process, and have a separate vendor prepayment model for use in certain fair value estimations. These different model platforms for the same collateral create the risk that: (1) the company is effectively employing materially different assumptions across financial reporting segments, and (2) changes/adjustments made to one of these platforms in response to recent events may not flow through to other platforms. Companies may wish to ensure that they have fully identified instances of multiple model platforms, and should be able either: (1) to reconcile adequately the differing credit views (or prepayment views) across these model platforms, or (2) to synchronize these views for financial reporting.

Use of existing models on new loan populations

The significant deterioration in liquidity and prices in secondary markets for non-conforming mortgage-backed assets has led a number of companies to reclassify segments of their loan portfolio from Held for Sale ("HFS") to Held for Investment ("HFI")—thereby increasing the population of loans on which loan loss reserves are estimated. In some cases, models currently being used as part of the ALL process may not have been validated for the products and/or characteristics of these HFS loans. For example, if a company previously sold all of its PayOption ARM loan production in the secondary market, then it is unlikely that its ALL models would have been developed for, or validated on, this product. As such, companies should ensure that they can adequately support the reasonable predictive performance of its credit and prepayment models for these new loans—such as through benchmarking and/or recent backtesting.

Revalidation of key model assumptions

Given the significant recent changes to the US housing market, other key credit loss assumptions should be identified and revalidated; for example,

- Pre-foreclosure expenses and lost interest may be materially different than historical experience due to changes in foreclosure timelines.
- Models that estimate credit losses based on a historical mix of loss mitigation strategies—such as REO, short-sale, third-party sale, or write-off—may need to be adjusted to reflect the changing mix of these strategies in the current economic environment.
- Models that incorporate expected recoveries from third parties—such as credit enhancement or repurchase proceeds—may need to be evaluated for changes in counterparty credit risk that could materially reduce the probability of receiving some or all of these proceeds.

Adoption of third-party financial models

In some cases, the breakdown of internal models may lead companies to license third-party credit and/or prepayment models for use in estimating their ALL or mortgage-related valuations. We note, however, that:

- Regardless of whether key assumptions are generated by internal or external models, management should still ensure the reasonability of these assumption estimates for the purposes to which they are being applied; and
- Nearly all vendor models contain dials and/or settings for users to calibrate or tune the model's default, prepayment, loss severity, house price forecast, and interest rate forecast assumptions. As such, it is crucial that companies be able to support through back-testing or benchmarking the reasonability of its model calibration and, ultimately, the reasonability of the model's predictions for its specific portfolio.
- Companies generally should not be using vendor models "out-of-the-box"—that is, solely with the vendor's default set-up—without a reasonable basis for doing so.

On-top adjustments to model estimates

For a number of companies, material ad hoc/on-top adjustments to model-based estimates typically fall outside the scope of their Model Validation programs. Since these adjustments are typically quantified by modeling personnel and sometimes employ complex data processing and estimation methodologies, they frequently involve significant "model-type" risks. Therefore, management should either scope the independent review of these adjustments into its Model Validation program, or employ appropriate control processes to ensure the reasonability and accuracy of these computations.

Model change management

Management's responses to current events may result in an atypically high number of model changes/enhancements. By opening up the models for these changes, companies create the potential for implementation errors and/or unauthorized changes to the model—thereby highlighting the importance of effective pre-implementation testing and associated model change management controls.

Conclusion

Model risks are continuously evolving in response to change, both within a company—such as the introduction of new products or markets, updates to underwriting criteria, changes in accounting, or changes to operational processes—or outside the company from changes to the broader industry or the economy. As such, while core model risks (such as those associated with OCC 24000-16) will always be present, it is equally important that companies continuously assess and address the emerging model risks that these internal and external changes create.

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The Homeownership Preservation and Protection Act of 2007: What does it mean to you, if passed?

In a reaction to the recent events in the housing market last year, Senate democrats are proposing new legislation in an effort to curb abusive lending practices in the mortgage industry. The Homeownership Preservation and Protection Act of 2007 was proposed in December by Senator Christopher Dodd (D-CT). The new bill, if passed, would tighten the definition of high-cost mortgages, prohibit prepayment penalties and yield spread premiums on non-traditional and subprime mortgages, compel lenders to ensure the loan is in the best interest of the borrower, and require servicers to comply with additional provisions. The bill has been deferred to the Senate Banking Committee however the general theme of the legislation that is being proposed in the House and Senate remains the same. The focus of the legislation is to ensure that borrowers receive loans that are best suited for them. The Home Loan Preservation and Protection Act as proposed, is one of the farthest reaching proposals of the pending legislation and is worth a more in-depth look.

High-cost loans

The proposed bill, in its current form, would tighten the current high cost loan definition outlined under the existing Home Ownership Equity Protection Act (HOEPA). The definition of a high cost loan states that on first mortgages the APR cannot exceed a comparable treasury maturity by 8% and 12% on seconds. In addition, points and fees that exceed 5% of the total loan amount will be considered high cost. The bill would now include yield spread premiums paid by the lender to the broker, in the 5% points and fees trigger. In addition, the bill would prohibit prepayment penalties and yield spread premiums on loans that meet the high cost trigger.

The bill not only singles out high cost loans, but it proposes additional standards on subprime and non traditional loans. Subprime loans are defined as loans with interest rates 3% higher than comparable treasury maturities for firsts, and 5% for seconds. Non-traditional loans are defined as interest only and payment option arms.

Subprime and non-traditional loans

One of the most controversial aspects of the bill is the provision that would eliminate yield spread premiums and prepayment penalties on subprime and non-traditional loans. However, it should be noted, that payment option arms have been around since the 1980s and have been an effective cash flow management tool for high net worth individuals for years. Only in the last few years, has the product been marketed to borrowers who may not have been best suited for the product.

The new provisions on yield spread premium may make it unlikely for brokers to offer these products, which in some cases, may hurt borrowers, since they will have fewer product and pricing options available. Brokers are the avenue in which many individuals chose to get their loans since they offer the most choices, and in many cases offer a better range of prices since they survey product, programs, and prices from multiple lenders. With the passage of the bill, these two product offerings would be available, but without the ability to receive a yield spread premium, the broker may have to charge the borrower an origination fee to cover costs, making them less attractive to borrowers. In addition to yield spread premiums, prepayment penalties would also be eliminated on these products, with the new legislation.

Prepayment penalties were originally implemented on pay option arms to stop lenders from incurring losses, since some brokers and loan consultants, continuously refinanced payment option arms. This abuse was especially transparent on the 3-month pay option ARM in which some brokers and loan consultants were refinancing these ARMs every 4–5 months on high loan balance loans. However, lenders were losing money every time this happened because of the cost paid out over and over again at origination. This led many lenders to start charging prepayment penalties on lines of pricing where the borrower had little invested to stay in the loan. The new legislation, would most likely lead lenders to start charging origination fees on this product, ensuring the borrower had enough invested to remain in the loan, long enough for the lender to re-coup the origination costs.

Suitability

In Dodd's bill the net tangible benefit test, which covered in the current HOEPA guidelines, is expanded upon, requiring lenders to ensure the borrower is getting the best loan given their current financial situation. The current net tangible benefit guideline requires lenders to prove the borrower is getting a financial benefit from taking out the new loan, but only applies to loans that meet the high cost trigger. If passed, the new legislation will require lenders to, in some ways become financial advisors to their borrowers to make sure the borrower gets the appropriate loan given their financial situation. This not only means that prime borrowers should get prime loans regardless of what channel they walk into, but they are also given the product that best suits their financial situation. To do this, lenders will have to define methodologies and algorithms to determine prime borrowers based on credit reports and application data. Lenders may also need to build functionality into their origination systems to determine the best product based on the borrower data and financial goals, since the cost of non-compliance would be too great. The potential remedies range from statutory damages of $5,000 per loan to curing the loan.

Appraisals

A rapidly growing housing market coupled with pressure on appraisers to, in some cases, inflate appraisals has definitely been a factor in the mortgage market turmoil. The new Homeownership Act includes provisions on appraisals, including having appraisers obtain bonds equal to one percent of the value of the homes appraised. If it is found that an appraisal exceeds market value by 10 percent, a borrower may be awarded a remedy and can potentially collect from the appraisers bond. However, the proposed legislation does not define how market value is determined.

Loan servicing

The bill also takes aim at loan servicers and provides additional borrower protection provisions as follows:

- Servicers must credit payment to accounts on the day the payment was received, and
- Servicing fees must be outlined in the mortgage contract, and adequate notice of a fee charge is also required, and
- Force placing of insurance, will not be allowed without adequate notification to the borrower, and
- A servicer will not be able to foreclose on a property, without an attempt at loss mitigation, and
- Servicers will need to report their loss mitigation activities

While many of the provisions outlined in the bill should help to mitigate some abusive practices that have occurred in the industry in the past, some of the provisions may actually cause more illiquidity in the market since the bill does not address pre-emption nor does it create a national fair lending standard. In addition, while investors are protected from class action lawsuits if they complete due diligence, they can still be sued from individual borrowers. However, the focus of bill puts the majority of the responsibility squarely in the originators lap with substantial consequences for non-compliance. The Dodd bill, if passed, may be costly to some lenders depending on the internal changes required for compliance including, origination system updates and changes, development of new underwriting and product approval guidelines, and the creation of risk management strategies and programs to ensure compliance. Regardless of whether or not this bill passes in its current form or competing legislation with similar provisions pass, these types of bills may require a significant undertaking for many lenders to redesign systems and processes to comply.

For more information on developing strategies to comply with the proposed legislation in your organization, please contact:

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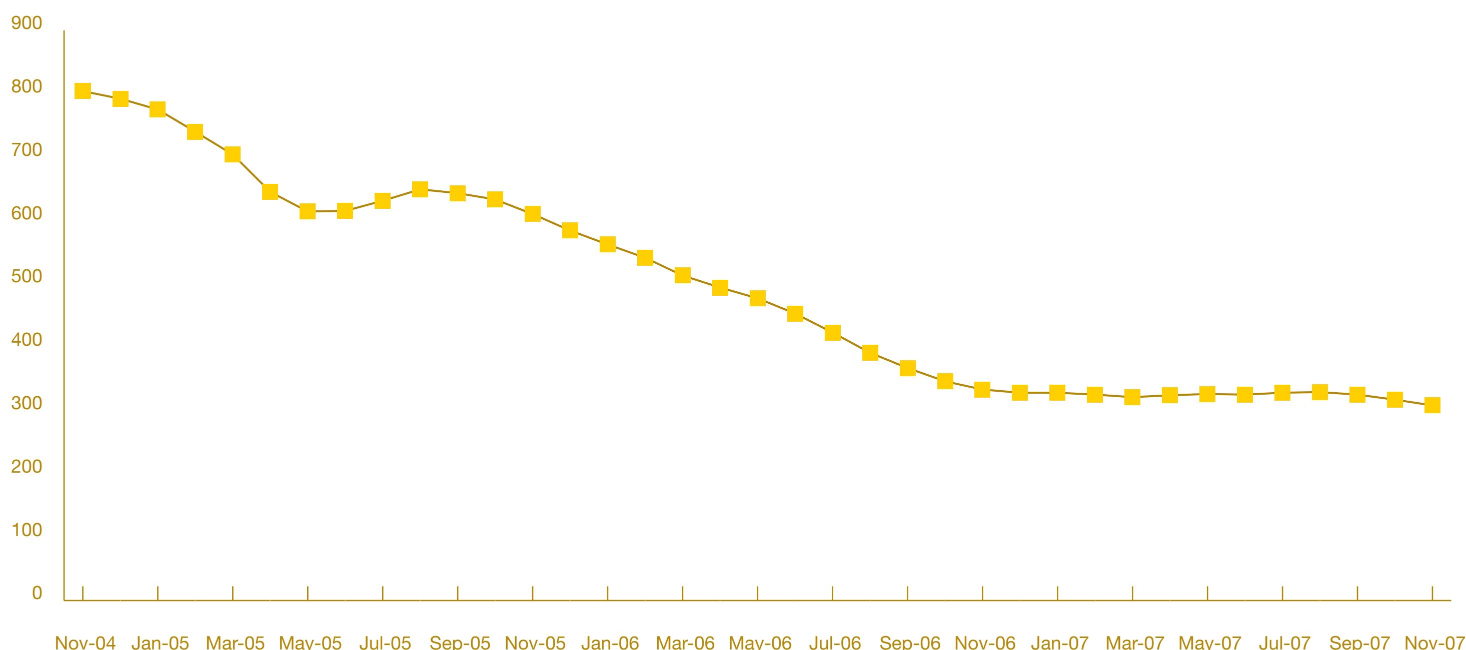
Forecasting prepayments in the volatile housing market

As turmoil in the US credit market continues, financial institutions continue to cope with the decreased liquidity for mortgage loans and mortgage-related assets. Not only are institutions faced with holding many of the assets they would have previously securitized, they are also encountering challenges in valuing them due to a lack of market transactions to utilize as price discovery points. These challenges are addressed by using valuation models, but the assumptions being used in these models have different levels of subjectivity and can be susceptible to varying degrees of inaccuracy that become amplified during stressed periods.

The foundations for the assumptions are grounded in historical experiences and trends. However, when current borrower behavior and market conditions begin to deviate significantly from the historical trends, what options do institutions have in order to react and adjust model assumptions? Such has been the challenge for companies attempting to model prepayment behavior over the last few quarters. In this article, we will discuss some of these challenges as well as consideration points that should be discussed when addressing them.

The divergence of current prepayment behavior away from the historical trends has affected the accuracy of existing prepayment modeling techniques. Throughout 2007, market participants have seen slower overall prepayment speeds (See Figure 1) as well as actual prepayments come in much lower than modeled levels. They have also seen marked changes in the mix of voluntary and involuntary prepayments, home price appreciation, the spread between agency and non-agency rates, and the possibility of loan modifications. The shift in prepayment behavior has pushed companies to investigate their prepayment assumptions and to evaluate the factors in the current market environment that have caused the behavior to deviate from historical trends. With increased scrutiny from regulators and auditors on models used to determine fair value estimates, companies need to be focused and detailed in arriving at their conclusions to adjust prepayment assumptions to meet the needs of the current market.

Figure 1: FNCL 30 yr 6.0 generic PSA prepay rates

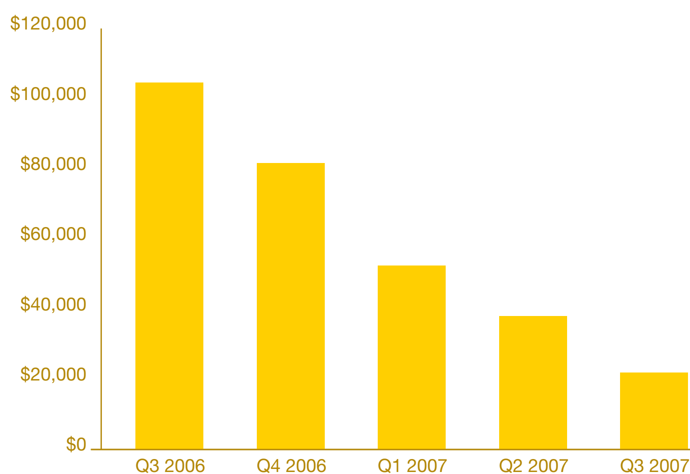


Changes in the current environment:

Tightening of underwriting standards

The recent scrutiny of lending practices due to increasing delinquency and foreclosure rates, as well as the lack of willing buyers of non-agency product has caused a tightening of underwriting requirements for non-prime mortgages. Subprime borrowers saw increased standards for minimum down payments, income verification, credit scores, and decreased product offerings. As evidenced by the quarterly UPB of the top 10 subprime originators in Figure 2 below, subprime originations have plummeted in the last year. The drop-off in subprime loan fundings has left many borrowers with fewer refinancing options, contributing to the lower prepayment levels as well as a shift in the mix of involuntary and voluntary prepayments.

Figure 2: UPB of top 10 subprime originators



Source: *National Mortgage News*

Mix of voluntary vs. involuntary prepayments

Although prepayment speeds are slowing down, the drivers behind the prepayments that are occurring are changing. In the refinance boom of 2003 and 2004, voluntary prepayments dominated the market as borrowers took advantage of lower mortgage rates, especially for ARM products. This continued through 2006 as home price appreciation helped spur cashout refinancing activity. However, with the decline in home prices and the increase in delinquencies and foreclosures, involuntary prepayments are beginning to become a more significant driver of prepayment rates than refinancing activity. In order to ensure that these changes are being considered, the following should be addressed.

Consideration points:

- If the prepayment model estimates speeds for both voluntary and involuntary prepayments, does it adequately capture the factors that drive both voluntary and involuntary prepayment speeds?
- If the prepayment model is used for voluntary prepayment speeds only, is it time to consider the competing risks of voluntary vs. involuntary prepayment activity?
- Are prepayment assumptions used for valuing mortgage assets consistent with the prepayment assumptions used for other critical accounting estimates such as allowances for loan and lease losses?

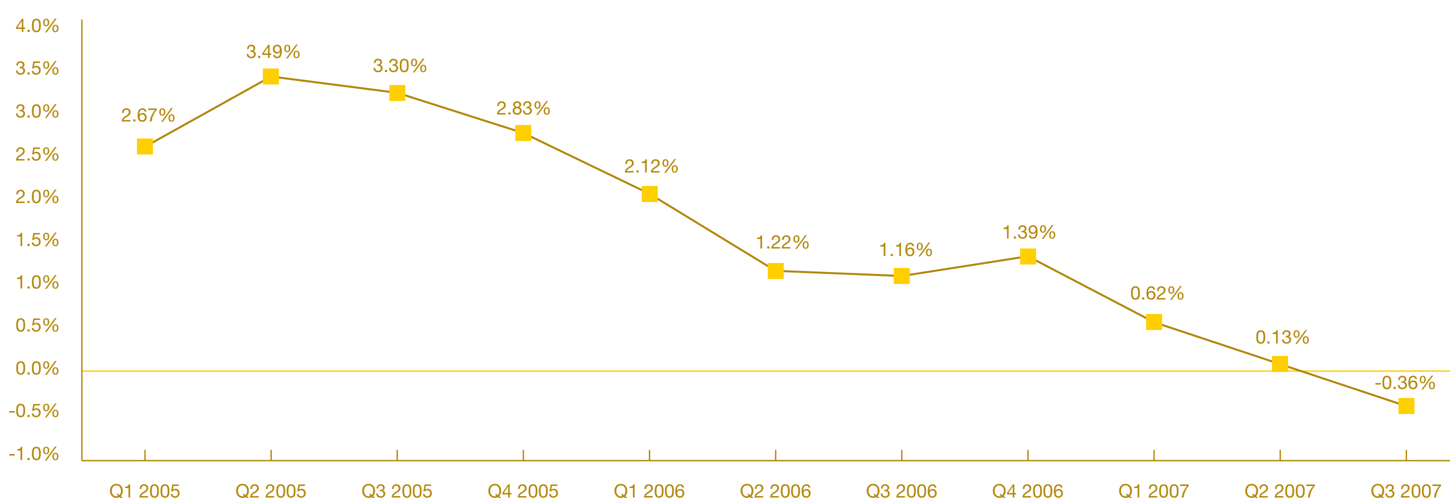
Home price appreciation

Home price appreciation (HPA) is a significant driver behind voluntary prepayments. When home prices surge, the additional equity built in the underlying collateral eases the ability of the borrower to refinance or pay-off. Recently, home prices are declining after a prolonged period of consistent appreciation which impacts current prepayment speeds. According to OFHEO's recent report on home price appreciation (Figure 3), the third quarter of 2007 marked the first quarterly decline in home prices at the national level in OFHEO's history. An

additional complication is that while the national overall home price appreciation has begun to decline, the home price appreciation rates vary for different geographical housing markets. The Ft. Worth-Arlington, Texas MSA, as an example, has experienced growing HPA during 2007 despite the declining national average.

	Ft Worth-Arlington TX MSA HPA
Q1 2007	0.04%
Q2 2007	0.83%
Q3 2007	1.96%

Figure 3: OFHEO home price appreciation



In order to ensure models and assumptions are considering home price appreciation effects, the following points should be addressed.

Consideration points:

- How does the model incorporate declining home price appreciation into its prediction of prepayment speeds (i.e., with little historical experience, how is the sensitivity of changes in prepayment speed to changes in home price appreciation established)?
- Is the model appropriately considering geography when making assumptions regarding home price appreciation?

Widening spreads between agency and non-agency products

As the risk associated with non-agency loans increases and liquidity decreases, lenders and investors are demanding higher interest rates as compensation. In turn, borrowers and loan sizes that do not qualify for conventional loans have little to no incentive to refinance as rates remain high or trend higher despite the downward movement of the FNMA 30 Yr Fixed coupon rate. This distinct divergence of rates between agency and non-agency products is a trend not reflected in the historical data upon which the prepayment models are based. Given the wide spread in the current marketplace, companies are challenged with taking a stance as to how

the unusually wide spread, relative to past trends, should be incorporated into prepayment estimates.

	Pre-subprime meltdown	Post-subprime meltdown
Jumbo to prime spread	25 bps	75–100 bps
Alt-a to prime spread	75 bps	100–150 bps
Subprime to prime spread	100–150 bps	250–300 bps

Source: *MIAC analytics*

To ensure that models and strategies used to adjust for the current spread trends are appropriate, the following questions should be addressed.

Consideration points:

- If using a static mortgage rate or zero volatility OAS approach, is the spread between prime and non-prime mortgage rates sustainable? Does the model incorporate mean reversion to address the unusual spread currently experienced between the agency and non-agency products?
- When using a model, is the loan data granular enough to capture the trends in the spread between the prime and non-prime products?

Loan modifications

Though loan modifications have remained relatively low despite ARM rate resets and increased delinquency rates, the propensity for lenders to modify loans and make workout arrangements is expected to increase as servicers and the government make their strategies public. A recent survey showed, loan modifications for loans outstanding as of September 30, 2007 had tripled by December to 3.5% compared to just 1% in September.[1] Of those loans examined in the survey, 23.6% of loans that were at least 60 days delinquent had been modified or were part of a workout arrangement. In October, Countrywide announced a $16B loan modification program in which they would reach out to approximately 80,000 borrowers offering modifications. Recent government announcements are likely to cause additional ripples in prepayment forecasting. President Bush's announcement instituting a five-year rate freeze for qualifying borrowers may affect approximately 100,000 to 200,000 borrowers. In order to properly understand how loan modifications will affect the portfolio and valuation assumptions, the following questions should be addressed.

Consideration points:

- How will prepayment assumptions change if modified loans exist in the portfolio?
- Are modifications considered prepayments in the servicing system? How will they be distinguished from voluntary or involuntary prepayments when evaluating modeled vs actual prepayments?
- How will this specialized modification information be communicated to investors?

Incorporation of the adjustments to reflect changes in the current environment:

Although models have user adjusted parameters or dials, it is important to note that models primarily rely on historical data in order to forecast prepayments. Due to the recent trend of rapidly declining prepayment speeds, prepayment models are overestimating prepayments

1 Source: Moody's Investors Service, Inc.

as the model catches up to the data. As a result of these changes, we have observed a rapid movement by users of prepayment speed models to adjust parameters of the model to slow prepayment speeds. In the Andrew Davidson & Co. December Pipeline newsletter,[2] for example, a recommendation is made to lower the turnover parameter on fixed rate loans due to the downturn in prepayment speeds. The lower than expected prepayments are being felt universally by the industry and many are taking action to reflect the lower prepayments by adjusting models or assumptions to correct for the recent trends. Model participants have a number of ways to adjust their prepayment estimates; however, the changes also require contemplation of the expectation for current prepayment behavior trends to continue in the future.

Consideration points:

- For what period of time should the correction be applied?
- How will that period of time be determined or will it be event-triggered?
- Will the correction be switched on then off at a point in time, or blended in?

Post-implementation monitoring:

The turmoil of the mortgage market continues to present obstacles, such as the lower than expected prepayment behavior, for all participants involved. As companies react to challenges uncovered in the embattled environment, it's important to thoroughly consider the multi-faceted nature of prepayment assumptions including the points outlined within this article. As with any model assumption, there is no black and white answer as to appropriateness of the assumption used, however, the subjectivity of the assumption also necessitates a high level of scrutiny and support for conclusions reached. With higher levels of scrutiny, it is essential to ensure that controls are up-to-date, relevant, and sufficient, and that documentation of assumptions is detailed and traceable. Continual monitoring and reporting of management's review of the appropriateness of the assumption is essential in today's marketplace.

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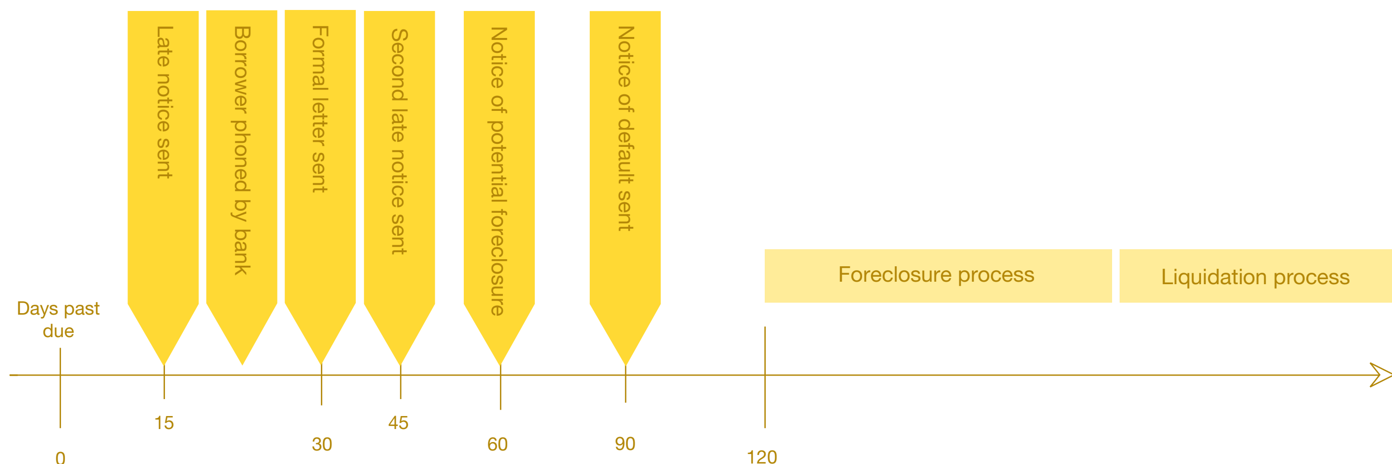
2 http://ad-co.com/newsletter/issues2007/dec07special.htm

Housing crisis: A challenge to servicers, borrowers and investors

The media headlines are undeniable, “delinquencies hit highest rate in years;” “thousands brace for mortgage rate jump;” “many homeowners facing foreclosure;” “mass real estate auction reveals depth of foreclosure crisis;” and so on… In addition to the media headlines, regulators, rating agencies, security analysts and investors are concerned about the effect mortgage delinquency rates will have on the housing market and the economy in general.

This concern is supported by the number of foreclosure filings reported during August 2007 as the number of foreclosures has doubled from the prior year and has increased 36% from July 2007 (1,082,712 loans have been placed into foreclosure during the first eleven months of 2007). The total number of foreclosures have increased by 115% from August 2006 to 2007 (243,947 versus 113,300 as reported by RealtyTrac Inc.). This is the equivalent of one foreclosure filing for every 510 households. During November 2007 the number of homes that became real estate owned by lenders (REO) was 72,101. That is an increase from October 2007 of 31.77%. Year to date 526,936 homes have been foreclosed upon by lenders which is up 41% from the same period during 2006.

The current environment has placed mortgage servicers in the political and media spotlight as to how well they manage defaults and their ability to keep consumers in their homes. With this increased publicity, mortgage servicers are also under increasing pressure to be efficient while controlling expenses and losses for shareholders and investors. In an effort to minimize losses and manage reputation related risks, mortgage servicers need to have in place a method of identifying borrowers at risk. Having robust remediation and default management plans is required to mitigate potential losses. Traditionally, the contact with the borrowers follows scripted dates that are widely similar across the industry:



During this process the servicer is attempting to make contact with the borrower to determine the cause of the delinquency and decide whether there are programs or processes available to solve the delinquency. A typical remediation for servicers involves spreading the delinquency amount over a number of months (three to four) by having the borrower make additional payments such as 125% to 200% of the monthly mortgage payment amount. If the borrower is unable to handle the increased payment the loan is placed into foreclosure. In order to stop foreclosure proceedings, borrowers would be required to pay the full delinquency.

Traditional default methods are generally reactionary and take an extended amount of time to complete the foreclosure process and liquidate the underlying collateral. The current practice is not in the financial best

interests of any of the parties involved, borrower, servicer, and investor; especially with declining home prices. In the time it takes to secure the underlying collateral, market values are continuing to decline, increasing the losses the servicer faces. To help combat the rising number of defaults, servicers need to be proactive by anticipating delinquencies. This is imperative to control expenses and losses. Servicers must first develop accurate information by creating robust models. Good default management models consist of processes that identify potential borrower and market risks, early on. Good default management models should employ the following criteria:

- Periodically update borrowers credit scores, so downward movements of those scores can be isolated to proactively determine which borrowers may potentially be heading for delinquency or have a diminished ability to refinance;
- Anticipate borrowers that may be at risk due to rate and payment resets, and determine the borrower's ability to handle the potential increases;
- Isolate loans in areas where the HPA index is decreasing or expected to soften. Housing prices are leading indicators of potential delinquency problems since they often reflect the market economy and the value to the borrower's investment.

By using the above information, servicers can start reaching out to the borrowers prior to a delinquency occurring. This will allow the servicer to proactively work through the issues the borrower maybe facing and avoid a lengthy default management process.

Secondly, servicers must develop current and accurate information on the underlying collateral. Knowing the market value of the underlying collateral will allow the servicer to make decisions on the most effective way to handle the borrower's situation and limit the potential losses to investors and themselves. Once a loan is forecasted to become delinquent or is in the early stage of delinquency the following data needs to be compiled:

- Current value of the underlying collateral;
- Marketing time of the underlying collateral if it is put up for sale;
- Direction of the market value within the area the collateral is located in;
- Condition of the underlying collateral; and the
- Borrower's investment relative to the market value of the collateral.

If the market is active and the value of the collateral makes selling of the property in the best interest of the borrower, the property sale can help to salvage the borrower's equity in the home; while allowing them to pay off the loan in full. Allowing the borrower to market the property can be done while a foreclosure action is being processed simultaneously. As a servicer, if a property sale is imminent, a foreclosure action can be slowed or stopped while a property sale is completed by the borrower.

However, if the market value no longer supports the mortgage balance outstanding, a servicer should consider the following options:

- **Deed in lieu of foreclosure:** Rather than go through the foreclosure process if the title of the property is free and clear, the deed to the property can be accepted. This saves the time and expense of foreclosure proceedings. The servicer then has the ability to market the property quicker and minimize the risk of property damage being done during a prolonged foreclosure process.
- **Short sale:** Even if the current market value does not cover the amount of a mortgage loan, a short sale can be less expensive than a foreclosure. A short sale involves working with the borrower to put the property up for sale with the servicer accepting less than the full amount to pay off the underlying loan. This can save time, expenses, and reduce losses associated

with a foreclosure and liquidating the property through the traditional processes. However, this requires a cooperative effort by all parties involved; including junior lien holders.

- **Modification of the loan:** Modification has become a politically charged topic. Federal legislators, federal agencies, state legislators, and state attorney generals have expressed a need for servicers to have a systematic approach to modifications such as; freezing adjustable rate loans at their initial interest rates or teaser rates. With modifications, servicers are concerned about being challenged by investors for excessive modifications, ambiguities of tax laws, and the complications of accounting rules on modifications. Servicers should be proactive in reducing the risks expressed above. If servicers do not, governmental and legislative authorities will intervene and force solutions upon them. Intervention has recently been led by Treasury Secretary Henry Paulson and the creation of the Hope Now alliance—a Treasury-initiated group of lenders, servicers, and loan counselors to help solve the delinquency crisis. Servicers now need to:
  - Be proactive in solving the issues around tax laws and accounting rules with the appropriate professionals to put an effective modification program together;
  - Work with investors to clarify guidelines for modifications in advance. Investors normally do not oppose a plan when it is developed for their input rather than presenting loans on a one by one basis;
  - Determine and present loans for modification purposes based on the business case according to the overall cost savings and a potential reduction in losses. The analysis should consider a full underwriting review combined with a net present value calculation to determine the best solution given the economics of loan.

Lastly, by being proactive and by stepping out of the traditional collection box mind-set servicers can create a positive working relationship with a borrower at risk to help control and reduce expenses and losses. Some specific ideas to consider are:

- Contacting borrowers at least six months prior to the reset dates of adjustable rate loans to find out whether the borrower will need help with potentially higher payments;
- Sending loss-mitigation information to delinquent borrowers' homes at times when they are likely to be there;
- Utilization of handwritten envelopes instead of letterheads, as borrowers are more apt to open mail if they are not able to identify when it is from the servicer;
- Filling out the paperwork in advance—rather than sending reams of blank forms—to relieve the intimidation of the work-out process; and
- Contracting with local counseling agencies to act as intermediaries and notify delinquent borrowers who are more apt to talk with a local credit counselor in person than by telephone with a servicer.

Having proactive policies, procedures, and predictive models can help servicers curb losses substantially, and it is imperative to do so since it is estimated that approximately $700 million of adjustable rate mortgage loans are facing reset periods over the next two years. If servicers do not take a hands-on approach to help solve the problems in the housing market, governmental agencies and legislative branches are positioning themselves to get involved and their solutions may not take into account the costs and losses to servicers and investors.

For more information on tactics and techniques to manage defaults please contact:

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Lessons learned from the early adopters of FAS 157/159 and from the current implementation wave

In the march to a fair value measurement basis for financial statements, the FASB has issued the Fair Value Measurement Standard (FAS 157) and the Fair Value Option Standard (FAS 159). FAS 159 permits the election of the fair value measurement method for certain financial assets and liabilities.[1] FAS 157 defines and establishes a framework for measuring fair value and expands fair value disclosure requirements. Early adoption of these standards was available for institutions that had not issued interim financial statements for their current fiscal years and is required to be adopted for financial statements for fiscal years after November 15, 2007.

Subsequent to the issuance of the first quarter 2007 Form 10-Qs for SEC registrants, we had an opportunity to see what the early adopters actually did and ascertain what lessons there are for those still working through adoption of FAS 157 and FAS 159. To develop this information we looked at the financial statements of ten early adopters.[2] Of the ten, they were evenly split between investment banks and non investment banks.

In looking at the available information, we note that there is wide dispersion of the assignment of similar financial instruments into the FAS 157 hierarchy as seen in the disclosure of level 1, 2, and 3 inputs. The election of FAS 159 also seems to be tactical with no one electing fair value model for all eligible items. Further, entities applying benchmark rate hedge methodology under FAS 133 are more reluctant to apply the fair value model as they are required to record the financial asset or liability at full fair value (credit risk would be in the valuations and P&L).

The FAS 157 valuation disclosures have been summarized in the table below.

The disclosures of the early adopters contain some inconsistencies as it relates to where certain items fit into the fair value hierarchy as proscribed by FAS 157. For example, we see mortgage securities and residential mortgage loans disclosed as having valuations in all of the fair value hierarchy levels as outlined in FAS 157. As a reminder, Level 1 valuation inputs are observable

FAS 157 disclosure levels (1-3)

	Early adopters examined									
	Investment banks					Banks				
Asset classes	1	2	3	4	5	1	2	3	4	5
Govt/agency securities	1	1, 2	N/A	1	1	1	N/A	1, 2	1	N/A
Other mortgage securities	1, 2, 3	N/A	1, 2, 3	N/A	N/A	1	N/A	1, 2	N/A	N/A
Trading securities	N/A	N/A	N/A	N/A	N/A	N/A	1, 2, 3	N/A	1, 2	1, 2
Mortgage whole loans	N/A	2	N/A	2, 3	2, 3	1, 2, 3	2, 3	N/A	2	2
Derivatives	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3	1, 2, 3
Resale/repurchase agreements	2	N/A	2, 3	N/A	N/A	2	1	2	N/A	N/A
Short securities	2	N/A	1, 2	N/A	N/A	N/A	N/A		N/A	
Debt/collateral (on balance sheet securitizations)	2	2, 3	2, 3	N/A	N/A	2	N/A	N/A	N/A	N/A
Debt	N/A	2, 3	N/A	2	N/A	2, 3	2, 3	N/A	N/A	
Mortgage servicing rights	N/A	2	N/A	N/A	N/A	3	N/A	3	3	N/A
Other retained interests	N/A	N/A	N/A	3	N/A	3	N/A	N/A	N/A	N/A

1 FAS 159 scope exceptions include demand deposits, leases, investments in subsidiaries or VIEs, convertible debt with a beneficial conversion feature, pension and other deferred compensation arrangements.

2 All of the financial statement information was obtained through the public Form 10Q filings of these companies.

inputs that reflect quoted prices for identical assets or liabilities in active markets, Level 2 inputs are inputs other than quoted prices included in Level 1 that are observable for the asset or liability through corroboration with observable market data. Level 3 inputs are inputs that do not have an observable market as they may reflect a company's own data. The level of detail in the disclosures does not provide the data to ascertain which mortgage securities or whole loans had a quoted market verses which ones were predominately based on modeled valuations. We may have expected to see these categories at a Level 2 due to the illiquidity of the markets, and the element of servicing that needs to be incorporated into residential mortgage loan valuation.

Also, the election of the FVO seems to be different across the nine institutions that adopted that standard as can be seen in this table with an "X" indicating an election (Investment Bank #3 did not adopt 159):

assets. However, not all mortgage loans were necessarily elected for the FVO. It appears that the emphasis is on the prime conventional mortgages—loans where the valuation process is more mature and there was a hedging program that qualified for hedge accounting under FAS 133.

For many early adopters, the logic surrounding the use of the FVO was consistent. They typically stated that the FVO provided an opportunity to mitigate volatility in reported earnings caused by economic hedging programs and the measuring of the hedged assets and liabilities reported at an amount other than fair value, while the related economic hedging instruments were reported at fair value with changes recorded in current period earnings.

On the liability side of the balance sheet, the results were also interesting. In most cases the elections to apply the

FAS 159 elections

		Early adopters examined								
		Investment banks				Banks				
		1	2	4	5	1	2	3	4	5
Financial instruments	**Mortgage loans held for sale**		X		X	X	X	X	X	X
	Securities (previously AFS)				X		X	X		X
	Resale and repurchase agreements	X				X	X	X		
	Borrowings/structured notes	X	X	X	X	X	X			X
	Securitization warehouse									X

What was most interesting is that the FVO was almost universally elected for some portion of Mortgage Loans Held for Sale. This may be attributed to the complexity of managing the FAS 133 hedging relationship for those

FVO were tied to the more complex transactions that may have been difficult to hedge in qualifying FAS 133 hedging relationships. However, one bank did migrate some of their fixed rate debt into the FVO with the

express intent of eliminating the complexities surrounding compliance with FAS 133.

In the table below, we can see the bias to the asset side of the balance sheet for the FVO:

Percent of balance sheet at fair value

(FAS 159 early adopters)

		% of total	
		Assets	Liabilities
Investment bank 1	11/30/2006	39.91%	19.45%
	2/28/2007	63.14%	48.92%
Investment bank 2	11/30/2006	40.52%	22.82%
	2/28/2007	35.20%	20.27%
Investment bank 4	11/30/2006	46.21%	30.32%
	2/28/2007	44.04%	32.80%
Investment bank 5	12/31/2006	24.23%	12.32%
	3/31/2007	31.54%	27.68%
Bank 1	12/31/2006	27.62%	14.03%
	3/31/2007	40.06%	16.99%
Bank 2	12/31/2006	21.22%	8.96%
	3/31/2007	42.08%	21.24%
Bank 3	12/31/2006	12.30%	6.34%
	3/31/2007	27.72%	7.03%
Bank 4	12/31/2006	4.81%	N/A
	3/31/2007	19.75%	0.69%
Bank 5	12/31/2006	1.52%	1.05%
	3/31/2007	20.79%	5.22%

From the table it is clear that the asset side of the balance sheet is consistently favored for the FVO election with a substantially greater portion of assets being recorded at fair value as compared to the liabilities. Additionally, with the exception of Investment Banks 2 and 4, the pre and post adoption numbers point to a significant increase in the percent of assets measured at fair value. While we do see an increase in the percentage of liabilities being measured at fair value (with the exception of Investment Bank 2), the results are much more modest and mixed. This may be partially attributable to (1) the inclusion of the credit risk component into the debt valuation and (2) FAS 159 excluding demand deposits from the FVO model. This may be a theme that will continue as the rest of the industry adopts the standard.

We are aware that the early adopters came to the realization that the implementation of these standards is not a simple exercise and that is being confirmed by the current wave of adopters. Implementation is at least a 6 month process, due to the need to address the systems related issues in tracking the FVO election and compliance with the increased FAS 157 disclosure requirements. These systems issues are still being worked through and may be currently addressed with spreadsheet applications.

In the current wave of adoption, there are some recurring themes that appear to be challenges for early adopters. These include but are not limited to the valuation of derivative credit/nonperformance risks, the use of valuation services, and the lack of strong valuation policies/practices, and the Level 3 roll forwards.

In FAS 157 there is the expectation that the fair value measurement will include all elements of the fair value. Derivatives in an asset position should include an adjustment for the credit risk of the counterparty. Derivatives in a liability position should include an adjustment for the risk of non performance of the entity that owns the derivative position. However, it is common practice for derivative models to perform valuations without any such adjustments. To further complicate this, the markets do not typically trade with "visible" credit adjustments due to the use of standardized master netting agreements and Credit Support Annexes (CSAs or collateral posting agreements). At this time, there is no clear consensus as to how this valuation dilemma is to be

addressed and how the netting agreements/CSAs factor into that valuation.

For valuation services, the situation is providing some challenges. At first pass, many early adopters were of the opinion that the use of a valuation service automatically resulted in a Level 2 valuation and they would be able to avoid the Level 3 disclosure requirements. As these firms finalized their implementation conclusions, many concluded that there was a need to dig further into what specific inputs were being used by the services and what was the corresponding level. What came out of this process is the realization that to value some securities, even the valuation services need to use a level of judgment or Level 3 inputs.

On the valuation policy front, many adopters are learning that they do not have robust valuation policies and procedures. With the implementation of FAS 157 we see a merging of what would normally be an accounting policy with the valuation policies. To the extent that the valuations are documented the development of the new accounting policy is greatly facilitated. However a valuation policy that says, for example, “download the Bloomberg price” will not be sufficient to support the FAS 157 requirements.

While much of the current effort still centers on correctly allocating instruments to the correct “buckets” and getting the starting position identified, many systems are not designed to track by level. This is complicated by the possibility that an instrument, for example a CMO, was a Level 2 but now has moved to Level 3 status due to changes in the market environment. This change in level will need to be identified, and tracked with valuations at the transition point captured in the system of record. Additionally, there currently is no consensus that clearly defines the realized and unrealized gains/losses for the Level 3 items.

The implementation of these new standards was challenging for the early adopters and no less so for the current adoption wave. As the adoption process continues, we expect to see diversity in 157 level identifications, a bias to the asset side of the balance sheet for the FVO election under FAS 159, and ongoing development of processes to comply with the disclosure requirements of the standards.

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College Cost Reduction and Access Act

The College Cost Reduction and Access Act ("the Act") has been hailed by the House Education and Labor Committee as the "single largest investment in higher education since the GI bill… at no new cost to taxpayers."[1] However, many student lenders have argued that the bill could be more appropriately labeled a cost re-allocation, with those costs being re-allocated to the lenders and the ultimate financial obligation resting on investors and consumers. Regardless of the perspective, there is no question that the bill has a significant impact on the student lending industry for both lenders and borrowers.

Legislation

Signed into law on September 27, 2007, the Act became effective on October 1, 2007, except as otherwise stated for specific amendments. Key components of the bill are as follows:

- Increased the maximum amount of Federal Pell Grant on a pro-rata basis over the next five years
- Established the Teacher Education Assistance for College and Higher Education (TEACH) Grant for qualifying students
- Gradual reduction in interest rates on subsidized Stafford loans for undergraduate students from 6.8 percent to 3.4 percent over a five year period
- Extended deferments on loan repayments for certain members of the armed forces and forgiveness of principal and interest on Federal Direct loans for employees in "public service jobs" after ten years
- Limited loan payments to 15 percent of a borrowers discretionary income (certain restrictions apply), and cancellation of any outstanding loan principal or interest after 25 years
- Reduced benefits to lenders in the Federal Family Education Loan (FFEL) program including:
  - — Elimination of the "Exceptional Performer" status that allows certain lenders to receive higher insurance rates on defaulted loans
  - — Reduction of the insurance paid to lenders on defaulted loans to 95 percent within five years
  - — Reduction of the amount that guarantors may keep through collections on defaulted loans from 23 percent to 16 percent
  - — Reduction to the special allowance payments (SAP) to lenders based on tax status (for-profit lenders receive a 55 basis point reduction while non-profit lenders receive a 40 basis point reduction)
  - — An increase in the loan fee paid by lenders to the government from 0.5 percent to 1 percent (the lender may not pass the cost through to the borrower)
  - — Reduction of the account maintenance fees received by lenders from the government from .10 percent to .06 percent on newly originated loans

1 http://edlabor.house.gov/micro/ccraa.shtml

Effects of the Act

Lenders are affected by this legislation in a number of ways:

- In the line of originations, it is arguable that many of the advantages of the FFELP have been removed, which, in turn, could lead to increases in loan volume in the Direct Loan Program.
- From a borrower perspective, there is expected to be less loan consolidation over the next five years as the consolidation loan rate is higher than the weighted average FFELP loan rates. This disincentive to consolidate could, in turn, lead to higher default rates with such borrowers.
- In the securitization market, the near-term could bring an increase in FFELP-backed securitizations due to current volume already originated and available on the market. However in the long-term, FFELP-backed

offerings are expected to decline, particularly if a move towards the Direct Loan Program proceeds. This could lead to an increase in private-backed student loan offerings.

From an accounting and cash flow perspective, the reductions in interest rates, SAP, and insurance on defaulted loans, combined with the increase of loan fees will impact lender returns. Lenders may also be impacted by:

- Losses due to the debt forgiveness amendments,
- Extended deferments for members of armed forces, and
- Increase in administrative costs from additional paperwork and time spent.

However, there are certain benefits of the legislation to student borrowers that may cause an increase in demand over the next five years, such as:

- Students that expect to work in public service jobs can rely on the debt forgiveness clauses,
- Students that take subsidized Stanford loans will have the benefit of lower interest rates over the last five years, and
- Borrowers worried about repaying loans in the future will have the comfort of having a 15% cap on all their student loan payments.

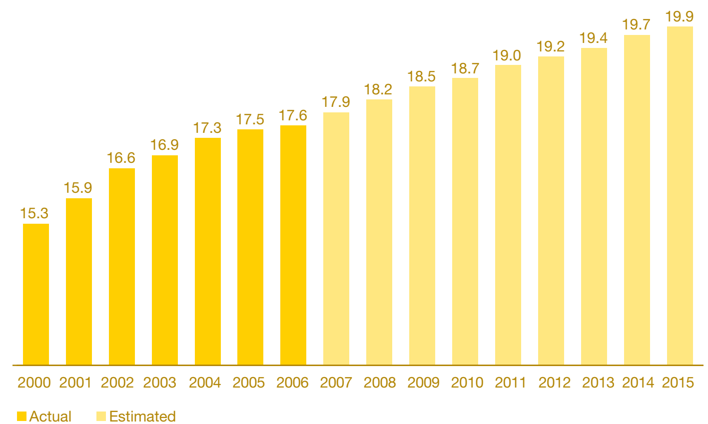
In addition to these challenges and opportunities, lenders will also need to consider the affect on loan valuation due to the potential for increased bankruptcy, defaults, and higher discount rates due to inherent risk premium.

Market response

The implications of this legislation on financial performance and risk on student loans may cause some small lenders to choose between reduced long term profits and an exit strategy from the business.

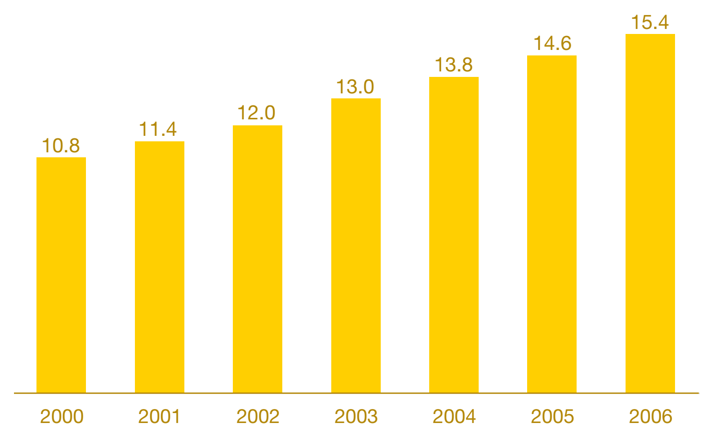
Similarly, some lenders may see the current environment as an opportunity to grow market share—organically and through acquisition—to improve scale and results. Lenders are therefore revisiting their platforms in an effort to identify efficiencies, improve scalability, increase market share and eliminate excess costs.

Exhibit 2:
Higher education enrollment (millions)



Source: "Student Lending Industry," Caylon Securities, Jan. 5, 2006

Exhibit 3:
Annual cost of education ($000s)



Source: US Dept. of Education

To remain competitive in the market with these conditions, lenders could take several approaches in the short term:

- Target borrowers seeking student loans over a certain threshold (e.g., originate loans with a minimum balance of $30 thousand). With a decreased guarantee fee, allowable principal default amendments and higher costs, lenders may only be able to see a return through high yield loans. On the other hand, lenders can adopt a view to maintain loan balances and focus purely on increased volume of originations. Statistics (illustrated below) have shown a rise in tuition costs as well as increases in higher education enrolment over the last 10 years with little to no increase in government aid.
- In order to respond to the cap on principal repayment (15% of discretionary income), lenders can create specialty products for qualifying borrowers that will increase incentive for borrowers (particularly subprime) to repay the debt in a shorter period of time (create a rebate for interest on a loan for borrowers who pay off their loan in a shorter period of time).

Over the long term, lenders will need to:

- Revisit their pricing strategy to encompass the reductions in interest rates, insurance on defaulted loans and the increase of loan fees,
- Update business processes and systems to handle the new income based repayment options, and
- Re-analyze the impact to loan valuation due to the potential for increased bankruptcy, default risk and higher discount rates due to inherent risk premium.

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