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The Subprime Mortgage Crisis – a fine mess with lessons to be learned

I have acted as a financial advisor for local units of government, businesses and individuals since 1984. Why does every generation have to come up with an idea that sounds like a win-win situation for everyone, but then is corrupted by the 'intelligent' and the 'greedy' by making it something for which it was never intended? Since 1980 we have experienced the bursting of the technology bubble, the commercial real-estate collapse, individuals going to jail for selling junk bonds and the savings and loans crisis. (Does anyone know when that bill comes due?) Now the latest generation has added the Subprime Mortgage Crisis. All of these crises can be characterized by the word 'greed' and the phrase 'immediate self-gratification.' In this 'Money-Line' column, KRWA stated the intent was to help inform about financial trends and terminology. This quarter we hope to enlighten readers about the Subprime Mortgage Crisis and how it may affect Kansans.

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The 'prequel'

These days many movies are doing prequels or the story before the story. The prequel for this article is associated with my wife Merroli and my second honeymoon. We celebrated our 25th wedding anniversary this year by going camping with our children. Yes, this is what she wanted to do. The rest of the story is that we camped on St. John, Virgin Islands – not a bad place to camp. While we were on this trip I experienced two separate and distinct events that in hindsight, prepared me to provide some insight on the Subprime Mortgage Crisis. The first – we met a couple that owned two houses. The second – I picked up a magazine titled *The Economist* (dated May 19, 2007) and read a special section on international banking.

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The couple we met has two young children and resides in Nevada. They were probably in their late thirties. The husband told me he had two houses – one located somewhere in Nevada (I don't remember where – but probably considered to be their home) and one in Las Vegas. He stated that the house in Las Vegas was financed with an interest only variable rate loan with a very low entry-level interest rate. Owning this house was less expensive than renting because he could write the interest expense off his taxes and he wasn't worried about selling his home if interest rates went up because he said, "the value in housing in Las Vegas only goes up."

The special section in *The Economist* contained a number of articles about international banking. What made me chill to the bone was reading an article about how exotic financial instruments have been designed by the 'best and the brightest' to spread the risk of default on bonds. It also discussed how these 'bright' people designed 'models' to replicate what would happen in case the bonds did default. I may have been bred, born and educated in Kansas, but I know

According to a front page article in the October 11, 2007 issue of The ***Wall Street Journal****, between 2004 and 2006 high-interest-rate loans totaling $1.5 trillion were made by 2,500 banks, thrifts, credit unions and mortgage companies. Subprime mortgages were initially aimed at lower-income consumers with spotty credit. However,* ***The Journal's*** *review of 250 million mortgage filings indicated that high-rate lending also rose sharply in middle-class and wealthier communities.*

it is very difficult to model something that has never previously happened. You can give it your best guess – but you can never be 100% positive how something is going to 'play out' in the face of adversity – especially human behavior.

What is a subprime loan?

A prime loan is money lent to a borrower with a good to excellent credit record with or without a significant down payment on the asset to be purchased. The better the credit record the smaller the amount required for a down payment, if one at all. Then by definition, a subprime loan would be money lent to a borrower who would not qualify for a prime loan. Most mortgage lenders base a borrower's credit worthiness, at least in part, on what is referred to as a FICO score. The higher the FICO score you have the more credit worthy you are. According to www.about.com, "A borrower's FICO score and loan to value ratio determine the type of loan a borrower will quality for and, typically, low FICO's coupled with high ratios such as 100% financing, result in subprime loans." About.com continues, "Borrowers whose FICO's fall between 600 and 700 receive less favorable terms. Borrowers with FICO's below 600 are finding it difficult to obtain financing at any interest rate." According to data compiled by Fair Isaac and Company, more than 42% of the population has less than a 700 score while 15% of the population has a score less than 600. You may obtain more information on FICO scores and credit scoring online at www.myFICO.com. Also Fair Isaac and Company recommends that people check their credit score at least once a year. This can be done at www.annualcreditreport.com. It is also free on an annual basis, but I tried it and there are a score of ads trying to get payment for many other items or services. Nothing is really free!

According to www.about.com, "A borrower's FICO score and loan to value ratio determine the type of loan a borrower will quality for and, typically, low FICO's coupled with high ratios such as 100% financing, result in subprime loans."

The good of subprime loans

One of the traditional dreams of every American is to own his or her own home. In 1986 Congress passed the Tax-Reform Act. Part of the provisions of this Act allowed borrowers with less than good credit scores to access the mortgage market; thus the subprime mortgage market was born. According to the *FRBSF Economic Letter Number 2001-38*, "Subprime mortgage originations grew from $35 billion in 1994 to $140 billion in 2000, indicating an average annual growth rate of 26%." In 2003 according to another *FRBSF Report,* "the subprime mortgage market was $332 billion." This was the latest data that I could find on the subject. At a continued average annual growth rate of 26% the subprime mortgage originations would have been $705 billion in the year 2007 – hardly considered a small amount.

Where subprime loans went bad

When I first heard of the Subprime Loan Crisis I thought of all the low-to-moderate income families that were going to lose their homes because of this. As one article from *The Economist* 'Subprime lending crisis: Help with the mortgage' described it, "A larger part of the problem has resulted from people lured into loans that they cannot afford. Opaque and complicated mortgages offered seductively low initial rates that soon leaped up." I remember when Merroli and I built our house in 1987. The lender wanted to know why we were building a $90,000 home when we could afford a $150,000 home. One should always buy what they can 'afford,' because, as he explained, "housing always appreciates." Our house has appreciated – just look at my tax bill; however, in 1991 Joshua arrived and Merroli got to stay home with the baby because we had a $90,000 mortgage; not a $150,000 one. Circumstances change. We had thought of job loss, illness, etc. – having a child was a pleasant change of circumstance. We are not any brighter than others, maybe just a little more conservative.

As I understand, many of these 'opaque and complicated mortgages' are referred to as 2-28 loans. These loans have a low introductory interest rate for a two-year period and then it becomes a variable rate loan based on some index for 28 years. For example, if someone purchased a $100,000 home at an introductory rate of 4% the interest only payment would be $333 a month. But after two years if the mortgage adjusts to 4% above New York Prime (which as of the date of this writing is 7.75%) the interest rate goes to 11.75% and the monthly payment increases to $979. It's not quite such a good deal anymore. Therefore, let's just sell it. Well, that is the rest of the story!

Remember my friends who own a house in Las Vegas? Well, guess what – the price of houses in Las Vegas do not always increase! An article titled, 'Housing: That Sinking Feeling' in the October 15, 2007 issue of *Business Week* discusses the Las Vegas housing market. It stated, "Las Vegas was once the hottest of the red-hot real estate markets. But when sales really started choking up last year, developer KB Home (KBH) did something drastic. Houses that were priced at $320,000 a year ago are now listed for $270,000." This is a drop of 15%. The article also indicated, "As recently as two years ago, prospective buyers would camp outside new developments to bid on dirt lots. Today, new homes are empty and communities half-built. The number of unsold homes has reached as much as 48,000, by some estimates, up from a more or less steady level of 10,000 over the last several years." Remember the law of supply and demand from school? When supply outstrips demand the price goes down until demand reaches equilibrium with supply. Well, this completes the equation: interest rates going up equals higher monthly payments; individuals couldn't afford the higher monthly payment plus they couldn't sell the house at an amount to pay-off the total outstanding mortgage – this equals default! Those low-to-moderate income people should have never gotten themselves into this mess.

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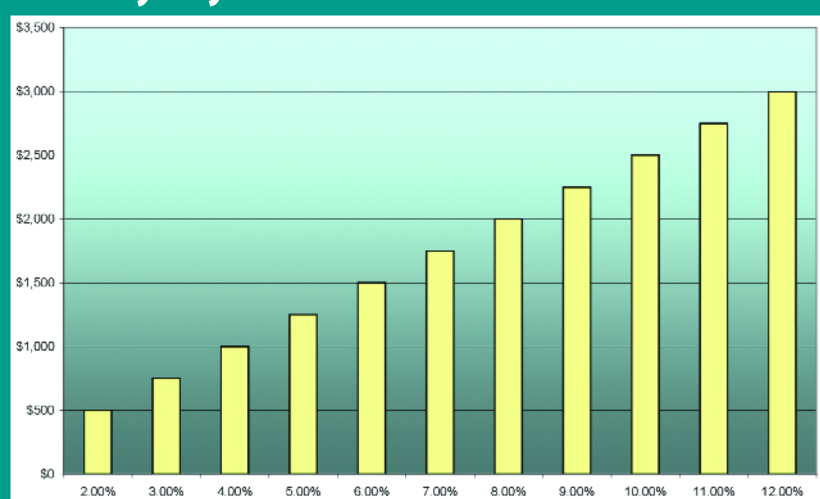
$300,000 Interest Only Home Loan Monthly Payment at Various Interest Rates



Next, I began to hear about problems with 'jumbo mortgages.' These are mortgages over $417,000 and will not be insured by FHA. Maybe low-to-moderate income people didn't create this problem!

Then I read an article in the September 6, 2007 publication of *The Economist* entitled 'Subprime Mortgages: of the wretched and the reckless'. I believe the article defines what happened quite well, "Outside the subprime sectors, recent data suggest that a large chunk of the rising defaults come from 'non-resident homeowners;' the speculators, and house flippers for whom there is the least sympathy." Unfortunately, this sounds like my acquaintances from Nevada. Just think of it! If a loan of $500,000 starts out at 4% it only has a monthly payment of $1,666 (still a lot of money to me); but if the interest rate adjusts to 11.75% then monthly payment goes to $4,895 a month. Zowie!! Don't walk – run away!

One might ask who financed these crazy mortgages! As I understand it these were not loans from commercial banks. Most of these were from mortgage brokers who bundled up a single loan with many other loans and sold them to an investment banker. The investment banker then securitized them (made a type of bond out of them), had the rating agencies rate them and/or an insurance company insure them and either kept them as a corporate investment or sold them to other investment banks, corporations, mutual fund companies, individuals or pension funds.

In another article in *The Economist* entitled 'Credit and blame: The rating agencies operate on shaky foundations,' it states, "The agencies are neither the only, nor indeed the main, culprits for the subprime crisis. The American mortgage industry was rotten from top to bottom, from buyers lying about their incomes to qualify for loans, through brokers accepting buyers with poor credit histories, to investors who bought bonds in the secondary market without conducting enough research."

Remember when I became concerned about exotic financial instruments to spread risk and how they were modeled? Well, investors bought some of the investment grade bonds because of the ratings placed upon them by national rating agencies like Standard and Poor's or Moody's and Fitch. A smart investment banker was able to convince the rating agencies that these investments were safe based upon models they had devised to calculate risk. Guess what? They didn't work very well.

When the loans were securitized by the investment bankers they were divided into groups: the really risky loans in one section, the sort of risky loans in another section and the least risky (notice I didn't say riskless) loans in another section. The rating agencies apparently rated the least risky sections as investment grade. In case of default it was assumed or 'modeled' that the higher-grade sections had a 'lower' probability of default than the other sections. They did have a lower probability, but a lot of them defaulted anyway! (I usually get the umbrella out when the weatherman forecasts only a 10 percent chance of rain).

Many institutions and individuals depend upon the rating agencies to tell them the risk of default rather than analyzing the credit themselves. Here's more from the same article in *The Economist*, "Those rating agencies have earned huge sums in the past 10 years offering opinions on the creditworthiness of an alphabet soup of mortgage-related securities created by over-eager banks. As the market blossomed, so did agencies' profits. Moody's net income rose from $289 million in 2002 to $745 million last year. But did the fat fees lead to a drop in standards?" Some have theorized that if an investment banker did not get the rating from one rating agency it would go to another one until a rating was received that was desired. This quote also demonstrates the amount of money that was ‘earned’ in this market. The minor share was made by the rating agencies – the more exotic the product the higher the fees investment bankers charge for their services. They received the money, but if the federal government bails this problem out, everyone gets left holding the bill. Analyzing credit would be an impossible task for most people. But as the next section of this article explains there were a lot of institutions that had to absorb huge losses that probably should have known better.

The present and future extent of the damage

Bankrate.com recently published this statement, “Standard & Poor’s says subprime originations totaled $421 billion in 2006.” These are just not your low-to-moderate individuals borrowing for a home. This is real money that was being used for many purposes. *The New York Times* in an article dated October 2, 2007 titled ‘Write-Downs by Big Banks Spark Rally,’ stated, “The country’s biggest bank, Citigroup, will write off $5.9 billion in the third quarter, causing its profit to drop 60 percent from a year earlier. Europe’s biggest bank, UBS, said it had written down $4.3 billion in the value of mortgage-backed securities and would suffer a loss in the quarter. Other banks, including Merrill Lynch and Bank of America have issued similar warnings. Investors took the disclosures as a sign that the worst may be over for the banks and that any (future) losses may be contained.” Some, however, do not think the real losses will be realized until these institutions are audited and the CPA’s whom have been under a great scrutiny too since the technology bubble burst make these companies mark these securities to market or calculate the true value – which is also a sort of an art to say the least. But after a while a billion here and a billion there begins to add up. Somebody’s loss is usually somebody’s gain, too. Where did all the money go?

The future does not look too great, either. In the July 12th issue of *The Economist,* in an article titled ‘Debt markets: another pounding’ it states this, “Many homeowners are already in trouble. Figures from MacroMavens, an economic consultancy, suggest that 23% of adjustable-rate mortgages, covering loans with a value of $693 billion, are already in negative equity where the loan is worth more than the property. But the full impact of defaults may not be felt until the low “teaser” rates on mortgages expire and push up borrowing costs.” These two-year teaser rates will not expire until 2008 and 2009. Have these potential losses been factored into the market yet?

How might this affect Kansans?

My first concern is KPERS. On October 5, 2007 the *Wall Street Journal* reported in an article ‘Bond Funds at State Street Draw Anger’ that the Subprime Mortgage Crisis affected some state employees’ retirement funds. The story went on, “In the latest development, attorneys general in Alaska and Idaho are looking into possible legal action against State Street over losses their state retirement funds suffered investing in two ‘enhanced index’ bonds.” The article further reported that, “The value of the money that about

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1,100 Alaska state workers had invested through their defined contribution plan in State Street's Government / Corporate Bond Fund fell to $30 million on Aug. 23 from $36 million on June 30, according to Alaska revenue officials." So much for bond funds being the 'safe investment.' I wonder how things are going at KPERS?

My second concern is how the Subprime Mortgage Crisis is affecting the ability of Kansas local units of government to finance their projects. Many of my investment broker friends were telling me that people were selling their Kansas general obligation bonds unless they were insured. Now that is a flight to safety! If you won't accept the risk of a Kansas general obligation bond then you are pretty well limiting yourself to bonds guaranteed by the U.S. Government or insured by AAA insurance companies.

The biggest problem, however, might be that Kansans who should get a loan for a home may not get one due to the tightening of credit requirements. Unfortunately, these are the casualties of the greedy. This country needs to tighten its credit requirements! How many credit card applications do you get every week? I get at least three.

Have we learned a lesson?

I doubt that we have learned a lesson as a group or institution. Something like this will probably happen two or three more times in my lifetime. But as individuals I hope we have learned not to invest or be involved in something that we either do not understand or it sounds too good to be true.

The Kansas Public Water Supply Loan Program

The Kansas Rural Water Finance Authority, KRWFA is under contract with the Kansas Department of Health & Environment to make sure what happened to the subprime mortgage market does not happen to the Revolving Loan Program. A fair question is how are the two programs alike? As the mortgage payments fund the debt service on the collateralized mortgage obligations it is the Loan payments that fund the debt service on the bonds that are issued to capitalize the Revolving Loan Program. If borrowers quit making payment on the loans, then KDHE defaults on the bonds. It is the responsibility of KRWFA to review each application to the Revolving Loan Program to preserve the program's financial integrity. Lately, there have been a few potential borrowers that have had a high debt to assessed valuation ratio (75% or more). This is a credit quality red flag. Please don't be upset if we don't initially approve a Loan because of this reason; we will contact you to clarify future borrowing requirements. If borrowers have a plan to eliminate or reduce future indebtedness it is likely that the loan will be approved. However, it will only take one default to ruin the opportunity for other small, medium and even larger entities to borrow at below market interest rates.

The other activity KRWFA is involved in is the annual review of the financial statements of really small cities and rural water districts. It is the intent or purpose of this activity to make sure the credit quality of these entities doesn't decline to the point of reaching a risk of default. This activity also helps identify those entities that could use KRWFA's experience in helping get their financial houses in order.

I encourage those with questions to contact either Rose Mary Saunders or me at 316/264-3400 if assistance or more information is needed about KDHE's Revolving Loan Program or if there is a need to discuss financing options.

Kansas Public Water Supply Loan Fund Historical Interest Rates

Month	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
January		4.25	3.98	4.73	4.37	4.08	3.91	3.80	3.60	3.60	3.35
February		4.15	4.00	4.77	4.25	4.11	3.92	3.73	3.58	3.57	3.33
March		4.09	4.00	4.80	4.13	4.14	3.89	3.68	3.53	3.53	3.35
April		4.09	4.04	4.77	4.11	4.15	3.86	3.62	3.56	3.53	3.36
May		4.15	4.05	4.69	4.15	4.16	3.81	3.69	3.58	3.58	3.37
June		4.17	4.09	4.69	4.18	4.18	3.69	3.82	3.56	3.62	3.39
July		4.15	4.16	4.68	4.21	4.13	3.59	3.97	3.46	3.67	3.51
August		4.12	4.25	4.65	4.19	4.08	3.60	3.99	3.42	3.68	3.58
September		4.10	4.35	4.52	4.11	4.01	3.78	3.90	3.43	3.63	3.69
October		4.07	4.44	4.45	4.08	3.92	3.92	3.78	3.44	3.54	3.67
November	4.31	4.00	4.58	4.44	4.04	3.89	3.97	3.66	3.49	3.46	
December	4.29	3.98	4.65	4.45	4.04	3.88	3.88	3.62	3.55	3.49	
Average	**4.30**	**4.11**	**4.22**	**4.64**	**4.16**	**4.06**	**3.82**	**3.77**	**3.52**	**3.58**	**3.84**

As of Sept. 30, 2007 small systems have received 120 of the 169 loans (71%) for a total of $144,511,436.91 of the total $376,805,685.16 (38%) committed in loans. Systems serving a population of 5,000 or fewer are classified as small systems under the Kansas Public Water Supply Loan Fund.