

GAMBLING & LENDING

by [Steve Brown](#)

Poker, credit underwriting and the roulette wheel - which of these things are not like the other? The surprising answer is the roulette wheel, at least when considering mathematical probabilities. Probability theory is used extensively in areas such as statistics, mathematics and banking to draw conclusions about the likelihood of potential events and the underlying reasons. For example, what is the likelihood that a default on a given loan will occur? If a default does occur, what is the likelihood that the loan outstanding exceeds the value of the collateral? If the value of the collateral has diminished, what is the likelihood that the guarantor's net worth exceeds the value of the loan? All of these questions involve probabilities. Delving even deeper into the math, consider that conditional probability is the likelihood of some event given the occurrence of some other event - the point of today's publication. Let's now consider the application of conditional probability to banking. While poker and banking are conditional probability games, the roulette wheel is an independent event game. Bankers have been taught to safeguard their loans through three sources of repayment: 1) cash flow, 2) collateral and 3) guaranty. When it comes to credit underwriting, we believe banks should spend most of their resources on the main source of repayment - cash flow. When cash flow disappears, all other sources vanish with it, primarily because of conditional probability. Cash flow services the loan and without it, the borrower is left to liquidate assets to pay off their debt. How is it possible then, that \$100 in collateral securing a \$75 loan could be an insignificant repayment source? The answer lies in conditional probability. The value of collateral is established through an appraisal, which is the best guess of the expected mean value of the collateral at a future point in time. The greatest determinant of value of a property is expected future cash flow generated by the property and discounted back to today. The problem arises when the cash flow from the property does not meet projected expectations; most likely the reason for the default in the first place. When cash flows suffer, the value of the property diminishes. In this case, the decrease of cash flow and decrease of collateral value are closely woven together. Let's shift gears and consider a personal guaranty. If the cash flow is insufficient to service the debt and collateral value has also dipped below loan principal, what other means does the guarantor have to pay off the loan? Typically, conditional probability again makes a personal payoff unlikely, since an astute and wealthy borrower will attempt avoid personally funding loan shortfalls. As cash flow becomes hampered, borrowers will immediately assess the value of the property versus debt outstanding and rational ones will liquidate the asset to capture any equity that remains. Borrowers will not liquidate properties to pay off debt if the outstanding loan balance exceeds the collateral value. In this case, the rational borrower will allow the lender to foreclose on the property, since this action typically precludes the lender from enforcing the guaranty. In this case again, conditional probability is not the banker's friend. Further, borrowers also tend to have concentrated exposure in geography and property types. If a given guarantor is experiencing cash flow issues on a property and has not had the time to liquidate collateral to pay off the loan, it is highly likely that the guarantor's net worth is tied up in other similarly failing ventures. Again, if cash flow is faltering, asset value is falling and guarantor net worth is plummeting. Know that we are not supporting eliminating personal recourse on loans. Rather, we simply point out that its value is usually grossly overstated. Bankers would generally do better to underwrite loans based on cash flow, since everything else is deeply conditional to that cash flow. If you are looking to gamble, head to Las Vegas. If you are looking to tip the probabilities in your favor, it all starts with good underwriting.

BANK NEWS

M&A

Magnolia Banking (\$490mm, AR) announced they will purchase Southern State (\$80mm, AR) for \$13mm, or approx. 1.9x book.

Public

Sound Community Bank (\$231mm, WA) filed to sell 44% of its equity to the public. The Seattle-based bank was formally a credit union before converting back in mid-2003.

FFIEC

The combined regulators issued the final rule that allows a longer, 18-month, exam cycle for banks between \$250mm and \$500mm in asset size. 1,100 banks now qualify.

New \$5 Bill

Government officials unveiled the new \$5 bill on Thursday and includes security features such as two watermarks, a repositioned security thread, a purple seal on the front, and a purple numeral 5 on the back.

Delinquencies

Loans that are 90-day or more past due now exceed 11% with more than 35% of these loans tied to residential construction or land. The increase over the past 5 months has been the largest increase since 1990.

Home Prices Fall

A new survey finds a record 26% of homeowners say the value of their home has declined during the past year, surpassing the previous peak of 24% in 1992.

Housing

Homeownership in the country climbed from 64% in 1994 to 68% as of the end of 2006.

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