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Zisler Capital Views

What investors need to know about . . .

Credit rationing and the cost of capital. Part 1

Why is credit rationed? Beginning students are taught that prices adjust to equate supply and demand. Professionals often forget that introductory courses may gloss over critical assumptions, such as symmetric information, wherein players share the same information and no information is hidden. The real world departs from this simplified model.

Credit rationing applies to circumstances in which either (a) among prospective borrowers who appear to be identical some receive a loan and others do not, and the rejected applicants would not receive a loan even if they offered to pay a higher interest rate; or (b) there are identifiable borrowers in the population who, with a given supply of credit, are unable to obtain loans at any interest rate, even though with a larger supply of credit, they would. (See Joseph E. Stiglitz and Andrew Weiss, "Credit Rationing in Markets with Imperfect Information", *The American Economic Review*, 71, 3 June 1981: 393-410.)

Hidden information poses critical challenges to the analysis of transactions, especially when transaction volume is low. Even in normal times, when credit is more plentiful, lenders still ration loans through non-price means. Banks cull loan applicants and reject many, not because they are not willing to pay high rates, but because the willingness to pay those rates may signal higher risk. Thus, banks reject applicants because they are inexperienced, poorly capitalized, or possibly dishonest. Sometimes the lender just does not feel comfortable with the project, the location, the development or leasing risk, or the property type.

Exhibit 1. Banks prefer not to lend at rates higher than R*, the optimum rate, since higher rate loans are so risky as to be less profitable. Even if the supply of loans increases, R* does not change.

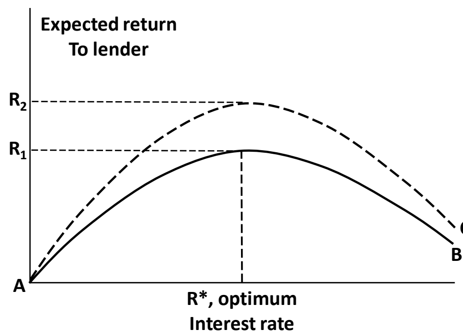
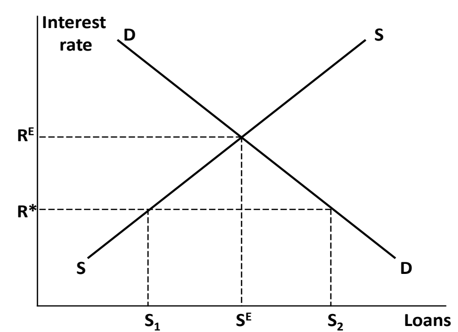


Exhibit 2. At the "rationed" interest rate of R*, demand exceeds supply and banks must resort to non-price rationing. Non-price rationing includes limiting the size of loan, excluding undesirable areas and borrowers.



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In equilibrium a loan market can exhibit credit rationing. The interest rate charged will sort potential borrowers (adverse selection) or affect borrower's decisions and incentives. When interest rates affect the nature of the transaction, interest rates may not clear the market and supply may not equal demand at the bank's profit-maximizing interest rate. Interest rates also act as a signal or screening device, helping banks sort potential borrowers. The least credit worthy may be willing to pay very high rates, similar to buying a call option or "lottery ticket". (From the outset, the incentives of the lender and borrower are not just misaligned, they are adverse.) The higher is the interest rate, the greater is the probability that the borrower will pursue riskier projects or propose even more heroic business plans. Thus, without a way to control borrower behavior (and risk) through means other than the interest rate, bank profitability declines.

As interest rates rise, bank profitability initially rises, but, at some point, R*, further increases in interest rates reduce, rather than increase, bank profitability, as shown in Exhibit 1. As credit market conditions change from, say, a regime of tight credit to one of looser credit, the expected return to the lender may increase from R_1 to R_2. However, as shown in Exhibit 1, the optimum lending rate, R*, may not change much at all as long as credit rationing remains. Thus, the prime lending rate, now 3.25%, may exhibit very little movement despite dramatic volatility in interest rate spreads, bid-ask spreads, and credit flows. Exhibit 2 shows that, at the rationed interest rate, R*, demand exceeds supply. Banks must resort to non-price rationing to eliminate excess demand, $S_2 - S_1$.

Conclusion

- During credit crises, when capital is severely rationed, prevailing interest rates may underestimate risk as well as the cost of capital.
- At sufficiently high interest rates, the volume of transactions falls dramatically.
- The variety of transactions contracts as investors recoil from property types beyond the "usual food groups" and from higher risk strategies that entail development.
- Transactions that would have once received ample funding are no longer feasible at the same interest rates, loan-to-value ratio or debt-service-coverage ratio.
- A gap opens between the maximum loan amount and price. Prices adjust downward, or mezzanine equity appears to fill the equity gap, or both. "Deleveraging" is the term that describes this painful process.
- A transaction and borrower that might have attracted debt financing at an 80% LTV would not qualify for a loan with an LTV greater than 60%, for example. What would have qualified for debt financing then may now require full or significant equity funding, and equity is more expensive than debt.
- As such, the pricing of loans originated two or more years ago may require equity-like pricing today. Without an interest rate reset, these loans today would likely trade at a discount.

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Zisler Capital Views is a research service of Encore Enterprises, Inc., that focuses on critical issues at the nexus of real estate capital markets, corporate finance, structured finance, and portfolio strategy. Our research is all about critical ideas for curious and thoughtful investors.

Why are we writing Zisler Capital Views? We believe that most (but not all) real estate research is either parochial, self-serving, bland, or just wrong-headed: (1) "Parochial" because much real estate research fails to look past the real estate sector and assess complex linkages affecting value and risk; (2) "self-serving" because some companies, which lack the long view, believe that uncompromising objectivity may be bad for business; (3) "bland" because some sponsors prefer " safe" or "so what" research rather than the alternative, which may be inconvenient or controversial; and (4) "wrong-headed" because much research fails to blend practice with the best that academia offers. However, the main reason we write Zisler Capital Views is, well, we just like to write and because we believe we have something important to say. We hope you agree.

Randall Zisler and Matthew Zisler have extensive experience in structured finance, research, derivatives, portfolio strategy, and real estate finance at leading global investment banks. The authors have advised some of the largest pension funds, institutions, corporations and developers, raised and managed (successfully) pension fund capital, structured complicated debt and equity transactions, and participated in REIT IPOs and CMBS issuance. Randy was a professor at Princeton University and has held senior positions at Goldman Sachs, Nomura Securities, Pension Consulting Alliance, and Jones Lang LaSalle. He has advised high net worth individuals including Marvin Davis and Merv Griffin.

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