

Turning Uncertainty into Risk: Why Data Are the Key to Greater Investment

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The role of data dominated much of the discussion at the Federal Reserve’s Secondary Market for Community Development Loans Conference. In our discussions of how to attract new investors to the field, the group reviewed all the things that investors are looking for: volume, geographic diversity, homogeneous assets, etc. But what became clear was that, above all, investors need data. Any investment is possible only if the investor has the necessary information—the data—to decide whether to make an investment or purchase an asset.

In this article, I provide overviews of how investors use data and what data they need. I describe three case studies in CRF’s experience of providing data to investors, and I conclude with some suggestions for how the field can improve its data collection and reporting practices.

How Investors Use Data

Different investors have different investment policies. The investment policy for an individual investor may have elements of asset allocation (How much do I want invested in stocks vs. bonds?), risk tolerance (Can I afford to lose principal?), and investment horizon (Am I investing for the long term, such as for retirement, or short term, to make home improvements a year from now?). With the institutional investor, this policy will contain many of these same elements, which are set down in an official written policy that an individual fund manager must follow.

The first step in the “whether or not” decision is often made based on descriptive data about an investment offering. Is it the type of investment I want (stock, bond, certificate of deposit)? Do I know the institution offering the investment? Does it appear to meet my return requirements?

Once the investor decides that the investment appears to fit its investment policy, the type of data and the importance of data that the investor reviews can vary widely. The chart below shows a spectrum of the type of data that may be provided by a community development lender that is seeking investments from institutional investors in pools of loans it originated and assembled. It is important to note that investments are made at all points on this spectrum. The point of the spectrum is to illustrate that the type of data the issuer is willing and able to supply will dictate the type of investor that will be attracted to the investment, and the amount of time that must be allocated to investor due diligence and to the negotiation of structural terms.

Community Development		➔	Mainstream Market
Type of Data Provided by Issuer	Self-described, non-comparative performance data		Data described by an objective 3rd party, such as a rating agency. Statistically supported, comparative performance data
Community Development		➔	Mainstream Market
Level of Independent Analysis by Investor	High		Low
Community Development		➔	Mainstream Market
Typical Investor Type	Socially-motivated or CRA-motivated investors with deep knowledge of the issuer		Institutional investors that may have limited knowledge of the issuer
Community Development		➔	Mainstream Market
Structural Characteristics of Pool	Smaller, non-rated loans or pools of loans with heavily negotiated structural terms		Larger, rated pools of loans with standard disclosures, representations and warranties and standard structure

Two primary assessments follow the decision to invest: (1) what level of risk will investors assign to the investment, and (2) what price are investors willing to pay for that level of risk? These two assessments cause many investors to turn to rating agencies for the risk assessment. A public rating provides a highly structured assessment of risk that uses similar investments as a comparative backdrop and is conducted by an objective third party. A public rating also provides the investor with an easier determination of appropriate price because the marketplace provides current information on other investments with similar structure and ratings.

The assessment of risk will generally be comprised of two components, credit risk and duration risk. Credit risk tells investors how likely it is that they will receive all payments for their investment. Duration risk tells them how likely it is that they will receive their payments in the timeframe forecast by the issuer.

What Types of Data Does an Investor Need?

The following are some typical components considered in the assessment of the credit risk of an asset-backed or mortgage-backed debt security:

- **Debt Coverage.** This is an assessment of the amount and timing of the cash flows from the underlying assets compared to the amount and timing of payments for debt being issued against the pool of assets.
- **Track Record of the Issuer.** This is an assessment of the performance of previous debt issued by the issuer.
- **Financial Status of the Issuer.** Depending on how much reliance the structure of the transaction places on the issuer, this assessment varies in importance. For example, if an independent third party is providing a guarantee for the transaction, the financial status of the issuer will have relatively less importance than if the issuer were providing credit enhancement to the structure by holding subordinate securities.
- **Stability of the Loan Servicing Arrangements.** Because the likelihood of the investor receiving payments is heavily reliant on the ability of the entity servicing the underlying loans, this assessment may include the provision of a backup servicer with significant financial stability. Such a backup servicer would step in to service the underlying loans in the event that the initial servicer suffered financial or operational difficulties.
- **Delinquency and Default/Recovery Performance of the Underlying Assets.** This assessment is time-consuming and it also can benefit the most from the availability of historical performance data based on comparable loans. These data are most valuable if they represent many loans that stretch over a long period (for example, more than ten years) in order to generate statistically predictive models. The profiles of the assets themselves and of the borrowers represented by the underlying assets are used to determine the benchmarks to which the pool will be compared. Data about the assets themselves will include term and amortization of the loans, interest rate, presence and type of collateral, loan purpose, and loan amounts. Data about the borrowers will include the location of borrowers, debt coverage ratios, loan-to-value ratios, and credit scores.

The following are some typical components considered in the assessment of duration risk for an investor in an asset-backed or mortgage-backed security:

- **Prepayment Performance.** This assessment will include the review of the terms in the loan documents regarding prepayment penalties, in addition to an assessment of the interest rates on the underlying assets compared to current market rates. Investors will assume that loans with interest rates well above current market rates have a greater likelihood of early repayment.
- **Priority of Payment for the Class of Securities.** This is an assessment of the projected maturity of the particular class of a security. Investors with a low tolerance for prepayment risk may buy classes with shorter maturities because they are less likely to be affected by prepayments.

- **Liquidity of the Securities.** Investors may consider their ability to trade securities to other buyers as a means of managing their risk over the long term. Many factors can affect this characteristic, but as a general rule rated securities are more liquid than those that are unrated.

Case Studies in Providing More and Better Data for Investors

CRF has issued asset-backed securities for more than 15 years. During the first 12 of those years, all of CRF's securities were privately placed and unrated. Most of the pools of loans backing these securities were small (under \$25 million) and were placed largely with socially motivated and CRA-motivated investors. Over \$200 million in asset-backed securities were placed with investors during this time. CRF will continue to use privately placed and unrated asset-backed structures in the future when that is the most effective method of placing certain assets.

In 2004, CRF offered two privately placed securities that were rated by Standard & Poor's. The first was issued by CRF Affordable Housing No. 2 LLC (Affordable Housing 2) as an \$85 million Real Estate Mortgage Investment Conduit (REMIC) security backed by 50 mortgage loans made to owners of affordable multifamily rental projects that had been developed using the Low Income Housing Tax Credit. The second was issued by CRF-17 LLC (CRF-17) as a \$46 million revenue note offering backed by 128 loans made to owners of small businesses and secured by their business real estate. Both offerings presented considerable data challenges, but the challenges faced in the two cases were very different.

Affordable Housing 2

In preparing the Affordable Housing 2 offering, CRF faced few challenges with providing the data needed by the rating agency. Standard & Poor's had previously reviewed many offerings backed by affordable multifamily rental housing loans, so their standards were relatively well known. Also, the REMIC security structure was well defined. The rating process resulted in 95 percent of the certificates being rated, with 75 percent of the certificates rated AAA.

The data issues arose when the offering was presented to investors. There is relatively little prepayment and default data for loans on projects developed using the Low Income Housing Tax Credit, and the particular loans in the pool did not have uniform prepayment penalties. In fact, many of the loans had no prepayment penalties or yield maintenance premiums at all. In response, investors varied widely in the assumptions they used to determine their duration risk. As a result, investors were pricing the securities at very different places on the yield curve (which at the time was a "normal" yield curve, with long-term interest rates higher than short-term rates). This in turn resulted in pricing that was worse than CRF had estimated in buying the loans. Eventually, CRF was able to provide information that allowed investors to price the securities at levels closer to those that CRF had expected and the sale was completed.

As a result of this experience, CRF has taken two actions to improve the results of similar offerings in the future. First, it has revised its pricing analysis to take into consideration the actual prepayment and yield maintenance terms of the loans it purchases. Second, CRF has presented information to the loan originators from which it purchases most of its loans to demonstrate the importance of including yield maintenance provisions in the loans they originate.

CRF-17

In preparing the CRF-17 offering, the data challenges that CRF faced were quite different from those faced in the Affordable Housing 2 transaction. When preparing for the CRF-17 transaction, CRF was aware that there was little experience at any of the rating agencies with rating securities backed by pools of small business loans. Standard & Poor's (S&P) was the rating agency with the most experience and it had rated fewer than 25 such offerings in its history. Accordingly, CRF set out to develop a form of benchmark data. Working with the organization Wall Street Without Walls, CRF was able to obtain data on the performance of more than 40,000 loans totaling \$14 billion that backed Small Business Administration (SBA) debentures under its Section 504 program.¹ CRF had requested that Wall Street Without Walls obtain this information because the loans originated under the Section 504 program were similar to loans that CRF was purchasing under its Business Loan Program, namely, loans to small businesses that are secured by the owner-occupied commercial real estate in which the businesses operate. Thus, this data provided CRF with a proxy that it could use to describe the likely performance of its small business loan pool, which comprised fewer than 1,000 loans since its inception.

CRF worked with its financial advisor, Wilary Winn LLC, to analyze further the SBA 504 data to establish an appropriate Constant Default Rate (CDR), which is the security industry's accepted method of stating the rate at which loans can be expected to default during the life of a pool. CDR is a critical variable used by investors to structure the expected cash flows for a pool of loans. CRF also obtained historical prepayment data for the SBA 504 debentures from publicly available sources and, with the help of Wilary Winn, converted that data to the other widely used metric in securitization—Constant Prepayment Rate (CPR). Armed with these critical metrics developed using the SBA 504 data as its proxy, CRF was ready to present its small business loan pool to Standard & Poor's.

Standard & Poor's ultimately used a very different methodology for determining the default percentages for the "stress tests." S&P determined the subordination levels necessary to obtain ratings for the senior classes of the CRF-17 security. However, the base cashflows and CRF's methodology for valuing and pricing its small business loans were established using the SBA proxy data as a guide.

¹ Wall Street Without Walls unpublished paper "SBA Section 504 Certified Development Company Program Analysis of Historical Debenture Performance," December, 2003

CRF-18

The levels of subordination required by S&P for CRF-17 were disappointingly high, but CRF proceeded with the transaction with the knowledge that its next pool would likely receive better subordination levels. In fact, when CRF-18 was closed in June 2006, subordination levels improved by 15 percentage points. This meant that the percentage of bonds rated investment grade (BBB or better) increased from 66 percent to 81 percent. This was attributable in part to the fact that CRF achieved greater “granularity” with its loan pool, meaning that there were more loans (188 versus 128) and fewer very large loans (the top 7 percent of loans by count representing the top 30 percent of principal balances versus the top 8 percent of loans representing the top 41 percent of the principal balances). A bigger contributor to the improvement, however, was the development by S&P of a new statistical model for evaluating pools of small business loans. This model also utilizes SBA data, but from the SBA 7(a) program rather than the 504 program. The data analyzed by S&P contains data on loans from 10,000 originators that made 650,000 loans in all fifty states and contains static pool information stretching over twenty years.²

Lessons Learned About Data and Proxy Data for Other Types of Community Development Loans

By moving beyond the relatively safe environs of nonrated pools of loans placed with socially motivated and CRA-motivated investors to the world of rated transactions, CRF was forced to learn about the loan characteristics and the metrics for expressing those characteristics that are important to achieving more efficient pooled transactions with investors. These exercises have resulted in value differences of well over \$800,000, realized through better executions on the securities it sells. Even if CRF chooses to use unrated transactions in the future, these same data and metrics can help in negotiations with investors to achieve more efficient transactions. At its heart, better data means that more institutional investors get to see how well these loans perform and what it means to have their dollars supporting minority-owned businesses, charter schools, health-care centers, and job creation. It would have been impossible for CRF to accomplish this groundbreaking research without the financial support of the MacArthur Foundation, the Heron Foundation, the Fannie Mae Foundation, the Prudential Social Investments Program, Wall Street Without Walls and others.

As the examples demonstrate, data are essential to any investment decision. CRF believes there may be other community development assets that can benefit from developing proxy databases and sample loan pools to test within the ratings environment in a manner similar to CRF-17 and CRF-18. CRF is currently participating in a group effort with seven other CDFIs to test this premise with a sample pool of loans made to finance the purchase of buildings to house charter schools. A similar effort may be forthcoming on a pool of loans made to owners of small multifamily rental properties.

² Standard and Poor’s Structured Finance publication “Standard & Poor’s Introduces U.S. Small-Business Portfolio Model,” February, 2005, provides an excellent description of the methodology they used in developing this model.

Important suggestions were raised at the conference on the development of a master servicer that could both reduce servicing costs for CDFIs and gather and centralize much of the data that investors would want. How this organization is funded and who might be in charge is still an open question. In the meantime, however, it would be important to find out what servicing responsibilities CDFIs are willing to outsource and to get investors (including rating agencies, public agencies, and foundations) to agree on a format for reporting. It might even be possible to use an existing platform that could be modified slightly to meet the needs of the community development investing community.

There seem to be a limitless number of tasks that need to be performed to get a clearer data picture going forward. Other efforts might focus on cataloguing what is currently being collected by the CDFI Fund, the Small Business Administration, the Opportunity Finance Network's CARS program, and the like. And on the other side, there is a long way to go to find out exactly what investors want. Fannie Mae, for example, collects a tremendous amount of data but tends to focus on a few key variables when it makes its assessment of investment worthiness. Perhaps institutional or capital markets investors could identify what their key variables are? They might also shed new light on what proxy variables might be the most useful for making performance predictions on new asset classes (for example, charter schools).

Finally, some entities—government or philanthropic—might consider subsidizing data collection. Many at the conference recognized that staffs are already overworked and assuming the responsibility for surveys or some other data collection tool on top of existing responsibilities seems unlikely. On the other hand, if there was an incentive to participate in a data-collection system (for example, a way to make something like loan servicing easier by using new software), there might be increased interest to participate. More data could bring a clearer picture of community development assets and help community development lenders get a fair price for their assets.

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