

Casting Light on Shadow Banking: Measuring Implicitly Priced Services of Private Asset Backed Securities Issuers

Kyle K Hood

Bureau of Economic Analysis

Margaret Lumsden

Bureau of Economic Analysis

Paper Abstract: Private-label asset-backed securities (ABS) issuers climbed from a miniscule segment of the credit intermediation market to a major player, peaking at around \$4.5 trillion in assets in 2007. This represents a more than four-fold increase from only a decade earlier, while at the same time the assets of private depository institutions only doubled. The credit intermediation performed by these entities takes the place of traditional credit intermediation performed by commercial banks, and importantly, removes the loans, bonds, and associated income/expense flows from the books of the originator of the loans. Because the measurement of production of some financial intermediation services is limited to only commercial banks and like institutions—and is based exclusively on loans held on these institutions’ balance sheets—the growth of private-label ABS issuance may distort our picture of the output of intermediation activity by removing a portion of it from view.

In this paper, we provide estimates for the size and growth of the production of implicitly priced intermediation services (“FISIM” in the terminology of the System of National Accounts) of private-label ABS issuers over the last two decades, improving on the method of Corrado et al. (2014) by collecting and utilizing data specific to this particular industry. While the user-cost theory that underpins our approach is standard, we must in the case of ABS issuers surmount several practical barriers that still obstruct the development of quality measures of output. Whereas banks are regulated strictly and are typically required to regularly report on condition and income to a supervisory authority, providing detailed comprehensive data, no such reporting requirements cover ABS issuers. Thus, we look to alternative sources. We take a novel approach that relies heavily on bond-level and deal-level data that ABS issuers are either required to report (by securities regulators) or voluntarily report. Such data allow the construction of indices of user costs, credit performance, principal balances, and issuance for various classes of ABS. These indices are combined to produce a measure of total nominal implicitly priced output of the industry, as well as an accounting of the related interest flows.

While many steps are involved in securitization, the outcome of this process results in a situation in which the ABS issuer is funded by a collection of bonds that are designed as a whole to closely match the risk and maturity characteristics of the loans held as assets of the issuer. The intermediation services produced by private-label ABS issuers thus do not include any type of depositor services, and so we may focus our efforts on designing a methodology to most effectively capture the borrower services produced by this industry.

User cost theory implies that borrower services output is given by the product of user cost spread and loan/collateral balance. Loan balances are simple to compute with available data. The user cost spread is computed as the coupon rate that is earned on the loan collateral less the user cost.

To compute user costs spreads associated with FISIM we must first select an appropriate reference rate. The reference rate represents the opportunity cost to the lender of making funds available to the borrower, and not any direct costs associated with raising capital and monitoring and servicing the loans. Fortunately, ABS are associated with a natural reference rate, as the securities backed by mortgage pools are sold to investors who do not play a role in servicing, origination, or maintenance of the loans. For this reason, we use the pass-through or coupon rate of the bonds as a measure of the reference rate.

We use a measure of the weighted average coupon rate on loan collateral for the loan collateral coupon rate. For each pool, this is the average rate paid on the underlying collateral, weighted by principal balance. We use the credit loss rate for privately issued ABS as a measure of the loss rate. Most data for this project were downloaded from the Bloomberg Terminal's Fixed Income Platform. For consistency with other measures, however, loan balances are taken from the Federal Reserve Board of Governor's Financial Accounts of the United States.

Preliminary results have been computed for private-label MBS. These results show a rapid rise in the output of these services between the mid-1990s and the mid-to-late-2000s, followed by a decline. In 1995, the industry was producing approximately \$7 billion in borrower FISIM. By 2007, the industry was producing more than \$70 billion in borrower FISIM. After this, output shows a marked decline, and today sits at around \$15 billion. This decline results from two factors: A squeeze in spreads attributable to increases in credit losses, and a sharp reduction in issuance that results in a steady reduction of loans on these institutions' balance sheets.

In addition to computing overall FISIM numbers, we note that ABS issuers use many services from other institutions. Information on these fees is available from the same data sources that are used to compute gross output. Thus, we will provide a full accounting for value added of these institutions. Finally, based on holdings, we will account for the users of private ABS issuer FISIM, and thus compute their impact on gross domestic product and other important quantities. Thus, this paper not only introduces a novel approach to FISIM that utilizes financial data, but also generates an accounting of an otherwise obscure industry.

References cited:

Corrado, Carol, Kyle Hood and Marshall Reinsdorf (2014), "How do you Complete the Picture of Credit Intermediation? Production and Consumption of Shadow Banking Services in the United States," Presented at the IARIW 33rd General Conference, Rotterdam, the Netherlands, Aug. 24-30.

Fixler, Dennis J. (1993), "Measuring Financial service output of commercial banks," *Applied Economics* 25, 983-99.

Fixler, Dennis J., Marshall B. Reinsdorf, and George M. Smith (2003), "Measuring the services of commercial banks in the NIPAs: Changes in concepts and methods," *Survey of Current Business* 83 (September), 33-44.