

Methodology

ABS Principal Repayment Estimates

November 17, 2003

Background

Transactions in long-term securities between U.S. and foreign residents are reported on the Treasury International Capital (TIC) Form S. U.S.-resident financial intermediaries report the purchases, sales (including sales of new issues) and redemptions of foreign residents. The primary reporters of these data are U.S.-resident securities brokers and dealers. If no U.S.-resident intermediary is used, U.S. investors in, and issuers of, long-term securities report these transactions.

Interest and dividend payments and the periodic repayment of principal to holders of asset-backed securities (ABS) are excluded. The intermediaries that are the primary TIC Form S reporters do not have the information to report these items. Since foreign holdings of U.S. ABS are significant, the omissions of ABS principal repayments overstate the net ABS flows. To remedy this situation, estimates of the amounts of ABS principal repayments are being made available on the TIC web site, monthly, beginning with estimates as-of July 2002.

Methodology

The bases for these estimates are the security-by-security positions data that underlie the Report of Foreign Holdings of U.S. Securities (TIC benchmark/annual forms SHL/SHLA). These data are reported by U.S.-resident organizations that hold U.S. securities in custody for foreign residents and by U.S.-resident issuers of securities that have issued securities held directly (i.e., without a U.S. custodian) by foreign residents. The security-by-security U.S. ABS positions are split into four subgroups: (1) agency ABS issued by the Federal Home Loan Mortgage Corporation (FHLMC); (2) all other agency ABS; (3) corporate mortgage-backed securities (MBS); and (4) corporate ABS that are not MBS.

A monthly ABS principal repayment rate is estimated for each subgroup. The principal repayment rates for agency ABS issued by FHLMC are calculated from FHLMC's Monthly Volume Summary Report at <http://www.freddiemac.com/investors/>. The ABS principal repayment rates applied to all other agency ABS (primarily Federal National Mortgage Association (FNMA) securities) are calculated from FNMA's Monthly Volume Report, at <http://www.fanniemae.com/ir/monthly/index.jhtml?s=Monthly+Summary>. (In theory, the rate received by foreign residents could differ from the average rate paid by FNMA. Therefore, the principal repayment rates calculated from FNMA's published data for the period April 2000 through December 2000 were compared to the average principal repayment rates for a sample of the agency ABS with the largest foreign holdings. Only small discrepancies were found between the two repayment series.)

The corporate ABS principal repayment rates are calculated separately for the corporate MBS and the corporate ABS that are not MBS by the Federal Reserve Bank of New York. For each group, the 100 largest securities (in terms of the market value of foreign holdings) in the Form SHL/SHLA report are chosen for use as the base sample group. For each security, the remaining principal held by foreign-residents and the factor value are used to calculate the original face value. In each subsequent month, the factor value (obtained on-line through Bloomberg Data Services) is multiplied by the original face value to provide an estimate of that security's remaining principal held by foreign residents. The month-to-month changes in remaining principal held by foreign residents are then aggregated and divided by the total remaining principal held by foreign residents in the previous month for that subgroup to calculate the estimated ABS principal repayment rate for that subgroup.

When a security is fully paid down, (i.e., the factor value goes to zero), two adjustments must be made. First, the change must be excluded from the sample, because redemptions are captured by the TIC Form S report. Second, a replacement ABS must be added to preserve the sample size and to ensure that recently-issued securities are included in the estimates. The replacement security is chosen judgmentally from the universe of large, recently issued securities. Therefore, the sample group for each corporate ABS category is always 100.

The calculated principal repayment rates for each of the four categories of ABS are then multiplied by the estimated aggregate remaining face value amounts of ABS held by foreign residents for that type of security in the previous month. In the first month of the process, aggregate remaining face value is obtained from the Form SHL/SHLA report. To calculate the total amounts held in months after the Form SHL/SHLA report date, a sequential process is used. Each month, the subgroup amounts from the previous month are individually adjusted by TIC Form S purchase and sales data, based upon the most recent Form SHL/SHLA ratio of that ABS category to total holdings, and by the estimated amount of principal repayments in that month.

The four estimated ABS principal repayment amounts are then aggregated into two categories, (i.e., agency securities, and corporate and other securities), to be consistent with TIC Form S reporting categories.