Leverage across Firms, Banks, and Countries

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Leverage has been a buzz word since the start of the "Great Recession". Anybody who has been following the news since 2008, and/or watched such documentaries as ``Inside Job'', would be left with the impression that large banks took extreme risks by borrowing large amounts while holding very little equity -- that is, leveraging themselves excessively, which ultimately led to the largest economic meltdown since the Great Depression.

But what do we really know about leverage? Is it true that every financial---or non-financial, for that matter---corporation took excessive risks and leveraged itself to the hilt? Or, was it only the large well-known investment banks, such as Merrill Lynch and Lehman Brothers? Or only the big banks that society couldn't allow to fail? Or, was it mainly a case of Anglo-Saxon banks taking on risk? What about banks in emerging markets which were supposed to be in better shape after decades of financial folly?

Kalemli-Ozcan, Sorensen, and Yesiltas seek to answer these questions in the research project that is briefly summarized here. Making use of extensive, internationally comparable micro-level data from most developed or developing countries for the period 2000-9, they attempt to uncover facts about leverage of financial institutions on both sides of the Atlantic. They find that there was very little buildup in leverage for the average non-financial firm or commercial bank before the crisis, although increasing leverage was visible for large commercial banks in the United States and for investment banks worldwide.

Off-balance sheet items constitute a major fraction of assets for large commercial banks in the United States; because these items often carry explicit or implicit guarantees from the sponsoring institution, they constitute a source of risk that usually is regulated more lightly. There was no run-up in guarantees before the crisis, although there was a sharp contraction as the crisis evolved, because banks were unwinding their off-balance sheet investment vehicles.

In addition to these dynamic patterns in leverage ratios over time, the researchers find that leverage ratios are pro-cyclical for investment banks, as well as for large commercial U.S. banks. They interpret these results using a framework suggested by Adrian and Shin in which these institutions actively manage their balance sheet to maintain a constant leverage ratio, implying that they increase their demand for assets when asset prices go up, creating feedback loops that may help create asset bubbles and busts.

Another interesting finding is that banks in emerging markets with tighter bank regulation and stronger investor protection experienced significantly less deleveraging during the crisis. The interpretation of the finding here is that these institutions took on less risk before the crisis. This indicates that regulation, whatever its other benefits or drawbacks, may help in making financial institutions less vulnerable to financial crises.

Overall, the results show that excessive risk taking before the crisis was not easily detectable because the risk involved the quality, not the amount, of assets. This holds for financial institutions in the United States as well as in Europe.