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# The Fungibility of Risk

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Risks that have caused historical crises have been fairly traditional. Risks like market risk (the risk of falling securities prices) and interest rate risk (the risk of rising interest rates decreasing existing bond prices) are well known and relatively easily managed. Risks like liquidity risk, and the penultimate “reputational” risk (really a subset of operational risk) are far less easily measured and managed.

Risk, however, is fungible. That is, it can be bought and sold at various prices. Taken in this context, therefore, we are witnessing a marked migration away from easily measured and managed risks as those have been effectively regulated toward more difficult-to-measure risks that are outside the regulatory purview. While it is tempting to just regulate those new risk exposures (more easily said than done), losing sight of the fungibility of risk only sets the stage to further migration.

## TRADITIONAL INTEREST RATE RISK IN THE THRIFT CRISIS

Take, for instance, the Thrift Crisis. The Thrift Crisis was caused by a spike in interest rates, manifesting itself as classic interest rate risk. Now, of course, since interest rates had only recently been deregulated at the time, interest rate risk was not on most lenders’ radar screens. But the mathematics of Macauley Duration that is typically used as a measure of interest rate risk had been around since the 1920s and the risk was therefore relatively easy to measure and manage.

But after the thrift crisis interest rate risk became heavily regulated. Bank regulatory reports required detailed analysis of interest rate risk exposure as well as standardized stress tests of the effects of interest rate risk on bank balance sheets. In response, moreover, banks moved to reduce interest rate risk by underwriting more floating-rate loans.

Of course, in the first order, adjustable rate mortgages trade interest rate risk at the bank for default risk of the borrower. Hence, in 2001 bank regulators increased the accuracy of delinquency measures that had been altered by different reaging procedures (by which banks can classify previously defaulted loans as once again current) in order to alleviate major reporting difficulties that had built up over the 1990s.

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NONTRADITIONAL LIQUIDITY AND “REPUTATIONAL” RISK IN THE CURRENT  
CRISIS

While banks transferred interest rate risk into default risk, they also sought to move risk off their balance sheets in various manners. The most obvious of these was loan sales, but those didn't leave the bank upside risk in the event that loans performed very well. Hence, securitization, through all its variations of RMBS, SIVs, ABCP, and ABS, was a far more attractive alternative.

But repeated reliance on securitization necessitated forming a model wherein no securitized investor would lose, or else they would not invest next period. Hence, banks helped develop accounting and regulatory rules that allowed them to replace non-performing loans in the pools with good loans so that investors would always be made whole except in the rare occasion that the bank failed, too. In essence, therefore, banks claim to have turned default risk into reputational risk, but the dollar amount of risk is the same.

Furthermore, the “reputational” risk is really only run-of-the-mill operational risk in that the bank is found to have obligations that extend beyond its contractual relationships. Even the best minds applied to Basel II have struggled with operational risk, ultimately settling on an ad hoc approach that will have to be revised (shortly).

In SIVs and ABCP, banks also assumed hard-to-measure liquidity risk, which was also treated very lightly in Basel II because, like operational risk, liquidity risk is not well-understood. Banks and non-banks also took market risk on the funding (liability) side when they sold short maturity liabilities to fund long maturity investments. Because such risk is ill-understood in the banking sector, regulated commercial banks rely crucially upon a government safety net to maintain stability. It should not be surprising, therefore, that such stability was lacking in the non-regulated sector during the most recent crisis.

SUMMARY

In summary, risk is fungible. It can not only be bought and sold, but it can also be transformed into more or less easily measured forms that, if arbitrage boundaries hold (as they should), contain the same dollar exposure. If we fail to learn this key lesson of the last several decades of deregulation then we have failed as researchers, regulators, and indeed, market participants. Remaining vigilant regarding those fundamental principles of risk will be a key function of regulatory functions in the modern financial marketplace.