

## Remarks on International Financial Integration and Fragmentation

We tend to think of financial markets as becoming gradually more integrated.

But there are reversals in that process and banks have been crucially involved.

The Latin-American debt crisis at the start of the 1980s was followed by a reversal in capital flows. Banks withdrew from international lending. Only later in the decade did the emergence of a deeper and broader international bond market plug the gap.

We are clearly now living through a period in which there is a major reversal in financial integration. This is not just because of greater conservatism among international investors and banks. It is also being encouraged by regulation, especially banking regulation. So it begs the question: is this a good or a bad thing?

The background to any discussion of financial integration is the notion of home bias. French and Poterba (1991) began a series of studies in which academics puzzled over why investors diversify so little outside their own countries. Standard explanations emphasize Informational asymmetries and costs.

Between 2000 and 2005, it is fair to say that credit markets globally became integrated in an unprecedented way. The process occurred through financial innovation, in particular the emergence of credit derivatives and securitizations that permitted people to trade illiquid credit risk that had previously only been accessible through setting up a bank branch or subsidiary.

One could plausibly attribute this development to a reduction in informational costs. Basel II created standardised measures of credit quality. Trading created its own information through the market prices of credit default swaps and many other credit related securities. Ratings agencies boomed, creating rating after rating for different types of credit.

But, the information apparently embodied in securities prices and ratings can be deceptive. Here is an example. I met a couple of years ago a former ratings agency quant who had been involved in devising the rating criteria for sub-prime mortgage ABS.

By his account, the stress events used to define the ratings came from the performance of a tiny handful of mortgage pools from towns in California affected by the closure of US defence bases.

The market was a new market so there was effectively no data. But it was not evident to people that the ratings and indeed the prices of the securities were based on so little data.

Another example is in the behaviour of structured product spreads through the first half of the decade. It was common to look at high frequency data on spreads and argue that ABS securities of all sorts were uncommonly safe. Spreads were reasonably low but more to the point, they never moved!

Of course what this reflected was not that they were low risk but that nothing affecting their risk was happening. Again the newness of the market made it easy to draw the wrong lesson. On the contrary, investors should have realised that there is in short no substitute for long runs of data on the actual cash-flows of a security.

Regulation provided the framework for integration by encouraging banks to rate their exposures in a systematic and standardised fashion.

The capital regulations did not particularly encourage overseas lending in that on the face of it more credit could have been given in regulatory capital calculations to international diversification. Capital charges were designed as though there was single risk factor driving credit quality which was less favourable on the face of it to internationally diversified banks.

But more than offsetting this there were blatant loopholes in the capital charges levied. In particular under the trading book arrangements, banks could treat some exposures as risk free on the basis that their spreads were so stable.

Did the international diversification make banks safer in any way? No. It encouraged poor underwriting standards since loans were granted with the intention of selling them off to less informed investors under the originate to distribute model. As Til Schuerman has argued, this was the key loophole in the system (compounded by the trading book capital arrangements).

Interesting ways to think about the limits of diversification are provided in recent papers by Ibragimov on investments with extremely fat-tailed asset returns. Holding an additional asset can increase risk because the worst of a set of individual losses determines the tail behaviour of the portfolio. With financial assets, losses are limited to initial values but when a bank is highly levered and investments are lumpy, such problems could arise.

Research like this is very much in the spirit of the times. Now following the crisis, the tide has turned and our banking systems are moving towards greater isolation. From the start of the crisis, a noticeable development was the curtailment of foreign lending by banks.

Perhaps, this was a home bias effect as banks focussed on markets they thought they understood. No doubt it was encouraged by regulators and governments who have pressured banks to maintain domestic lending while cutting back asset growth as much as possible to economise on capital.

Encouraged by regulators, banks have sought to maintain liquidity currency-by-currency. This partly reflects the banks' own painful experiences of trying to manage liquidity at the height of the crisis with unprecedented stress not to say breakdown in the currency swaps market. It also has reflected regulator pressure.

Perhaps the biggest regulatory discouragement of credit market integration is through the punitive regulation of securitizations capital that is underway. This will limit bank-led integration or international debt markets apart from through holdings of corporate and sovereign bonds.

Despite my comments above about the problems in the originate-to-distribute model and in structured product ratings, this seems to me a major and somewhat regrettable step to take. Banks in Europe are hooked on central bank assistance. Their difficulties in funding themselves from the private sector will be a major drag on growth for years to come.

In the long run, non-bank financial institutions may play a greater role as investors in securitizations but insurers are being strongly discouraged by their regulators with Solvency II rules, for example, making investment in securitizations prohibitively expensive in regulatory capital. It will take many years for pension funds and others to become volume investors in these areas.

More broadly, it seems to me regrettable that large parts of the credit market, mortgages, consumer loans, corporate receivables, etc., are likely to be accessible only through equity investment in the originating banks.

Without some bank investors, it is hard to see the securitization market as being viable. Under the new rules, the banks will only be able to invest in foreign non-corporate or sovereign credit markets through branching or subsidiaries. All of this contributes to the increasing fragmentation of our credit markets internationally.

Turning to the role of central banks in this, central banks have been trying to alleviate the greater or lesser distress affecting their own banks. Liquidity support by the ECB has been providing bank funding, allowing the banks to recapitalise by deploying cheap money. The Bank of England approach of quantitative easing tries to reduce long rates with a view to lowering borrowing costs for firms without directly involving the banks.

These are very domestically oriented policies. It is natural that central banks be totally focussed on the plight of their own real economies at this stage. At least within the Euro area, ECB actions are assisting a re-establishment of normality in the periphery and hence tending to restore integration at least in part. Blanket liquidity provision subsidises most those who are under greatest stress, providing implicit transfers.