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Diversity and fragility in the global financial system
Why Basel III could make the system more fragile

Diversity of buyers and sellers and of long- and short-term investors is a necessary conditions for a successful market economy. Some aspects of Basel III may threaten it, which will affect all market participants, both regulated and unregulated.

One reason why the 2008 meltdown wasn't worse than it was is because not everybody was selling at the same time. Long-term investors, such as pension funds, stepped in to buy cheap assets, critically breaking the fall in asset prices as banks, investment banks and hedge funds scrambled to raise cash.

The argument for maintaining the balance of buyers and sellers has never been stronger, yet two provisions of the Basel III Fundamental Review of the Trading Book (FRTB) may upset it.

Drawing on the insights of global risk professionals interviewed by Frances Cowell and Matthew Levins for *Crisis Wasted? Leading Risk Managers on Risk Culture*, published by Wiley, this article explains why diversity in the financial system is key to ongoing stability and how two seemingly benign measures aimed at correcting some shortcomings in Basel II and further strengthening the system-wide capital base can aggravate the problem of crowded trades, pro-cyclicality and instability. It concludes by describing an alternative approach.

Resilience through diversity

Plurality of investors and their different reasons for holding similar assets are what keep the financial system from being even more unstable than it is. To see why, consider the different types of organisations that make up the financial system and the investments they hold. A given asset, say a bond, may be held by banks, investment banks, insurers, hedge funds, foundations, sovereign funds, family trusts, pension funds and mutual funds, as well as individuals.

Should the bond fall in value, the investment bank and the hedge fund may be obliged to sell it to meet margin calls on the short-term borrowing that financed its purchase. This puts downward pressure on the price, often triggering a pro-cyclical pattern of further sales and further price deterioration. Long-term investors such as mutual and pension funds, on the other hand, are under no pressure to sell: with no short-term financing demands to meet, they usually can ride out the short-term turmoil and

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may even take the opportunity of lower prices to invest more, reaping handsome long-term profits for their investors.

By standing in as buyers of under-priced assets, long-term investors provide crucial liquidity, a natural shock-absorber and counter-cyclical force in the financial system.

The FRTB proposed as part of Basel III introduces a number of real improvements, including more clarity about what should and should not be in banks' Trading Books. But it threatens to dilute market diversity and unsettle the balance of buyers and sellers in times of market stress and to aggravate the chronic problem of pro-cyclicality in two ways. The first is the apparently benign proposal to apply banks' internal risk models in tandem with a common, standard model to calculate regulatory capital requirements. The second is to apply the same capital adequacy rules to all large financial organisations, including insurance companies, asset managers and pension funds, as well as banks.

Which model?

One of the important innovations of Basel II was that banks should us their own, internal models to estimate the amount of capital they should hold, known as the internal ratings-based (IRB) approach. The reasoning was that banks understand their investments better than any outsider, so the models they build themselves are, *a priori*, best able to capture their risk. Regulators demanded only that the same models be used to estimate capital requirements and to manage the portfolios themselves, known as the "use test". This works so long as banks are subject to continuous scrutiny by creditors and investors, who ensure that risk is maintained at the level that keeps borrowing costs low. But the use test may not always work in practice as well as it should.

One reason the use test is less effective than expected is that, with the general level of interest rates at historic lows, borrowing costs are very low, even for relatively high risk borrowers. Another reason is that different banks' models give very different estimates of capital requirements – even for an identical portfolio of assets. There are of course arguments that banks may have good reasons to allocate different amounts of capital to a similar portfolio of assets. For example they may choose to combine very active risk management with less reliance on capital buffers; or they may complement a summary level of risk monitoring with a strong capital cushion. Yet the widely drawn conclusion from this divergence is that banks had done what is, for them, rational: they had optimised their models to flatter their own books in order to keep capital requirements to a minimum.

The alternative to using banks' internal models is to impose a uniform, standard model on all regulated organisations. This may improve comparability, but there are a number of important drawbacks:

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- One size fits nobody: a model built for some “average” or “typical” portfolio may be ill-suited to actual portfolios, with the result that some risk may be mis-estimated, or missed altogether, and capital requirements understated.
- Models imposed by even the most astute regulator will be slower to adapt to changing market conditions and portfolio profiles than models developed by the organisations themselves, so some sources of risk can remain un-measured.
- Any modelling errors in the standard model will be amplified across all large organisations, which could cause the system itself to become under-capitalised.
- The risk of crowded trades, where many investors buy and sell similar assets at the same time, is greatly increased when all financial organisations are compelled to use the same model.
- A single model cannot take account of banks’ different approaches to risk management.

By proposing to combine, in tandem, internal and standard models, Basel III seeks to preserve the benefits of both. Internally developed models would thus be harnessed as reasonableness checks on the standard model – and vice-versa.

But the danger is that, since maintaining and operating models is largely a fixed cost, and since creditors and investors will instinctively focus on what the standard model says, organisations will find it increasingly difficult to justify the cost of maintaining their internal models. Reasonableness checks and critical model diversity thus may in time be lost. Systemic stability will suffer.

These dangers are aggravated by proposals to apply the rules not only to banks, but to all large financial organisations. This would mean that long-term investors, such as insurance companies, asset managers and the pension funds they represent, who in 2008 (and in all previous crises) stepped in to buy in the asset fire-sales, now will be forced to sell, worsening the pressure at just the wrong moment for all market participants. Not only that, but selling into a stressed market necessarily does much permanent damage to their investors’ portfolios.

Not everyone is a bank

Regulation in financial markets typically focusses on the assets held by financial organisations. This is understandable: crises manifest themselves as large falls in asset prices, and clearly some assets are more at risk than others, so limiting an organisation’s exposure to asset risk ought to help make the financial system more stable. But are big asset price falls the cause of market instability or are they symptoms?

Regulation that focusses on assets raises the temptation to treat all financial assets in the same way, regardless of how likely they are to be sold following a market

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shock, masking the distinction between long- and short-term investors. Not only would this remove a critical source of liquidity and stability, it would actually aggravate downward price pressure, so making market shocks much worse than they otherwise would be.

In times of stress, rational investors sell assets only to meet liabilities, such as margin calls, loan repayments or fund redemptions. So it might make more sense to regulate financial organisations according to their liabilities as well as their assets, taking into account things like call provisions and lock-in periods. This automatically distinguishes between long-and short-term investors and how much their market activity could imperil the system as a whole.

When all large organisations follow instructions from the same, possibly flawed, risk models they will all rush for the same exit in an emergency. Who will stand in as buyers? The answer can only be shadow banks and other organisations that are not captured by the regulations. Much could hang on their capacity – and willingness – to come to the rescue.