Discussion

David Longworth

Introduction

Nick Le Pan's paper is a tour de force, exploring the causes of and cures for the current financial crisis. It draws on his vast experience at the Department of Finance, the Office of the Superintendent of Financial Institutions (OSFI), and the Canadian Public Accountability Board.

I believe that Festschrifts should be times of celebration. Today, we celebrate David Dodge's illustrious career in public policy. In this commentary, I will focus on medium-term responses—and on what we should celebrate, as well:

- Guard what is good in Canada, celebrating what we have done right.
- Respond with macroprudential policies, celebrating differences in viewpoint.
- Respond with microprudential policies in Canada, celebrating the work that lies ahead.

Guard What Is Good

Much of what is good was put in place when Nick Le Pan was at Finance and OSFI and when David Dodge was Deputy Minister of Finance. The key elements of what is good in the Canadian system—and that need to be kept—are mentioned in Nick's paper.

First, in regulating financial institutions:

- Risk-based regulation and supervision.
- Good provisioning and capital rules, with Tier 1 capital requirements often above those in the United States or Europe.
- Leverage limits kept, even when Basel II was adopted, preventing Canada from having a bank like the Swiss bank UBS with leverage of 52 to 1.
- Modern insurance solvency regulation—an area where Canada is a world leader.
- Separating the roles of chief executive officer and chair in financial institutions.

Second, in dealing with failures:

- An up-to-date deposit-insurance system.
- Prompt corrective action when a financial institution gets into trouble.
- Netting and close-out of derivatives in bankruptcy.

(The United Kingdom would have loved to have had the first two of these elements in place before the failure of Northern Rock.)

Finally, Canada had made the right moves in a number of other areas:

- Establishing a Financial Institutions Supervisory Committee and an associated process of information sharing among OSFI, the Bank of Canada, the Canada Deposit Insurance Corporation, and the Financial Consumer Agency of Canada.
- Giving the Bank of Canada oversight over clearing and settlement systems.
- Retreating from insuring mortgages that have an extremely high loan-to-value ratio (although not until 2008), a move applauded by David Dodge.

The Macroprudential Response

In a Bank for International Settlements working paper (Borio and Lowe 2002), the authors find that an economy in which the level of credit is above trend by more than 4 or 5 percentage points and in which asset prices are 40 or 50 per cent above trend "is more than usually vulnerable to problems in the financial system."

The absence of a major financial crisis in Canada in the inflation-targeting era prior to the current crisis has made empirical work on financial stability difficult. However, Bank of Canada researchers Illing and Liu (2003) did construct a financial stress index, which rises significantly in "stressed times" that might not be classified as full-fledged crises. Recently, Bank researchers Misina and Tkacz (2008) have examined whether Canadian credit growth and asset-price growth are leading indicators of movements in the financial stress index, in both linear and non-linear models.

They find that "*some* combination[s] of credit and asset price variables are important predictors of financial stress, although the results depend on the type of model used . . . and the forecast horizon." Business credit appears to be about the best leading indicator in both linear and non-linear models at the 1- and 2-year horizons. And a "combination of this variable with a threshold in a housing-sector asset price leads to significant improvements in performance over the same horizon." Although the federal funds rate is a significant leading indicator at shorter horizons, international variables are generally less significant than one would expect they would be in a small open economy, especially since many of the sharper moves in the financial stress index are associated with significant external shocks.

Thus far, I have only discussed the leading-indicator properties of credit and asset prices. Hyman Minsky developed a "financial instability hypothesis" under which "a financial system naturally evolves from a robust structure to a fragile structure, or from a structure

that is consistent with stability to one that is conducive to instability" (Papadimitriou and Wray 1997). As Minsky put it, "The first theorem of the financial instability hypothesis is that the economy has financing regimes under which it is stable, and financing regimes in which it is unstable. The second theorem of the financial instability hypothesis is that over periods of prolonged prosperity, the economy transits from financial relations that make for a stable system to financial relations that make for an unstable system" (Minsky 1992, 7–8). Minsky talked about financial positions evolving from being "hedge," to being "speculative," to being like "Ponzi finance." With the recurrent bouts of financial instability in the world, even when inflation has been well in control, many have returned to read Minsky.

Overall, the behaviour of the financial system, including credit growth and asset-price movements, appears to be very procyclical. In dealing with the cycle, Nick warns against using capital requirements tied to the cycle, at least in any mechanical way. Here, I would differ.

Goodhart and Persaud have generally proposed capital requirements that depend on the state of credit (or asset-price) cycle (see, for example, Goodhart and Persaud 2008). While I don't consider cyclically based capital requirements a panacea, they do have several potential advantages that should be carefully examined.

Let me give some intuition, in various dimensions, about why cyclically based capital requirements might be useful (also see Bank of Canada 2008). First, risk a year or two ahead actually rises in an economic upswing, but its price falls. Second, absolute capital requirements cannot act as a buffer for the institution itself (as in the case of reserve requirements, secondary reserve requirements). However, if requirements fall in a downswing, there is a buffer for an institution. Having requirements fall in a downswing avoids the ratcheting up of acceptable levels. Third, policies should be symmetric in upswings and downswings (as are inflation targets): actively encourage capital ratios to rise, and then allow them to fall. Fourth, automatic stabilizers are useful, as David Dodge has argued (Dodge 2002, 2008). They don't prevent bad outcomes, but they do dampen them. Fifth, cyclically based capital requirements do not replace monetary policy, for a central bank can do its job without automatic stabilizers in the credit realm just as in the fiscal realm—it can do its job without them, but the economy would be less stable. Sixth, credit shocks are different from output shocks; it is useful to react to shocks at their source to counter cycles. Seventh, aggregates are often easier to predict than components. Consequently, aggregate risk may well be easier to predict than sectoral risk. We don't want our regulatory system to avoid the big picture.

More work is necessary, but this area should be taken very seriously. Perfection should not be the point of comparison, and one could start with required capital requirements having only a small response to credit and asset-price growth.

In dealing with the cycle, other regulations and practices beyond capital requirements should be examined. They include:

- Instituting dynamic loan-loss provisioning, as practiced in Spain (Jiménez and Saurina 2006).

- Having margin requirements that do not vary procyclically and that are set to deal with close-to-highest levels of volatility faced over a long period (as are central bank haircuts at 98 or 99 per cent confidence levels).

- Requiring Value-at-Risk calculations to be based on long historical samples and (when missing financial instruments historically) cross-correlations of close to 1.

Dealing with the wide financial system: Where to build the dike

Nick argues that, in dealing with the wide financial system, one must decide where to build the dike. He argues, with justification, that it should be built at the edge of the banking, insurance, and investment banking sectors. He further argues that all who have access to safety-net facilities have to be regulated. (This has raised a number of complications in Canada, where some important provincially regulated deposit-taking institutions have access to the Bank of Canada's standing liquidity facilities and, for some, under certain conditions, to its emergency lending assistance.)

Nick goes on to examine regulation for those beyond the dike. His view appears to be that the case for significant regulation is not proven—for what purpose would regulation occur? There is the question of whether one could achieve the desired result through closer regulation of the relationships of regulated financial institutions with these entities. One way to accomplish this may be through regulating margin requirements in the way that I have suggested above.

Dealing with co-operation and accountabilities

Nick's starting point is that the Financial Institutions Supervisory Committee works well. He asks how it could be strengthened further and suggests the addition of a national securities regulator.

He notes that even greater co-operation between the Bank of Canada and OSFI would be desirable. This has been occurring, especially in the area of liquidity management by financial institutions.

Nick asks whether there should be an explicit mandate for central banks in the area of financial stability. He notes that the role, staffing, and organization of a central bank in this area are important. The 2008 organizational alignment exercise at the Bank of Canada, effective on 3 November, means that departments are now aligned by function: a new Financial Stability Department and the Financial Markets Department together carry out the financial system function.

The Microprudential Response

Nick makes a number of recommendations in the area of microprudential regulation that are relevant for Canada. From those, I have put together a checklist for the Department of Finance, OSFI, and the Bank of Canada.

Heighten the focus on:

- Liquidity of banks and the real quality of risk management.

- Real-time enforcement of capital markets and financial fraud.

Re-examine:

- Insurance company winding-up issues.
- Foreign exchange risk (of particular interest to the Bank).
- Legal ability and options to resolve large, complex financial institutions.

Examine:

- More regulatory limits on concentrations.
- Stability issues related to clearing and settlement of (credit) derivatives (of particular interest to the Bank).
- Greater involvement of auditors in independent assessment of banks.
- Limiting (not eliminating) auditor liability.

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