Claudio Borio's contribution to the economics of monetary policy¹

Colloquium in honour of Claudio Borio

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The surest way to get a sense of Claudio Borio's contribution to macroeconomics and the economics of monetary policy is to recall the assumptions that governed most research in the field when Claudio began his remarkable career at the BIS in 1987:

- 1. All markets clear all the time no shortages, no excesses, no assets that can't be sold.
- 2. All prices and wages are perfectly flexible.
- 3. Economic agents households and firms, workers and employers, savers and investors, borrowers and lenders have "rational" expectations, meaning that in aggregate they act as if they know the true process generating any future outcomes in question.
- 4. All non-money financial assets are perfect substitutes. An immediate corollary is that private liabilities don't matter for macroeconomic purposes neither their quantity nor their quality.
- 5. Private financial institutions, including banks, shadow banks and the like, don't matter either.
- 6. A further implication of assumptions 3, 4 and 5 is that regulation of financial institutions by a public authority is unnecessary, perhaps even counterproductive. Rational investors, concerned for the safety of their deposits and other holdings, will provide all the monitoring needed.

These assumptions were not just prevalent in the field as of 1987, they were de rigueur – in the literal sense that any analysis not based on them was deemed non-rigorous. The standard pejorative applied was "ad hoc".

As Robert Solow famously put it, the advances of the 1970s and 1980s set macroeconomics back three decades. But no line of economic analysis that is so far removed from reality can survive indefinitely, at least in the policy-relevant arena. In this case the principal reckoning came with the Great Financial Crisis of 2007–09 and the economic downturn that followed – in the United States, and in many other countries as well, the deepest since the Great Depression of the 1930s. Monetary economists fond of repeating Henry Thornton's dictum that the central bank should

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discount freely the paper of all but insolvent banks discovered that the world didn't work as it did in Thornton's day, when English banks were, by law, unlimited partnerships and moreover limited to no more than six partners. Those committed to Walter Bagehot's familiar recipe that the central bank should lend at a high rate to solvent institutions on sound assets realised that determining which assets were sound, and therefore which institutions were solvent, was itself endogenous to the central bank's own actions. Whether some credit on a bank's balance sheet was worth 90 or 40, or perhaps nothing at all, depended on whether the central bank was lending against it. Most importantly, the depositors who were assumed to be monitoring banks and other financial institutions were simply missing in action. As former Chair of the Federal Reserve Alan Alan Greenspan put it, after the largest US banks avoided failure only by turning to government bail-outs (and even with recapitalisation from the US Treasury, Citibank stock fell from \$55 to 97¢), "Those of us who have looked to the self-interest of lending institutions to protect stockholders' equity, myself included, are in a state of shocked disbelief."

But realisation that the prevailing monetary economics of the day was inadequate did not begin with the GFC. In preparing these remarks I turned to the table behind my desk and, quite at random, pulled two blue-covered pamphlets from the shelf. One, dated May 1990, was titled "Leverage and financing of non-financial companies." The other, dated October 1990, was titled "Banks' involvement in highly leveraged transactions." Both were intended to bear implications for the conduct of monetary policy. Both anticipated the GFC by nearly two decades. Both were authored by C E V Borio. There were plenty more I could have chosen.

The BIS – importantly including C E V, who now signs himself Claudio – has been at it ever since. (And in this respect, we should acknowledge too the long-time leadership provided by William White, former Head of the Monetary and Economic Department.) Their fellow economists have paid attention. Today the role of banks, shadow banks and other financial institutions is very much a part of macroeconomics and monetary economics. So is the recognition that markets, including those for financial assets and liabilities, do not always clear. And even when they do clear, they do not always operate under symmetrical information, much less expectations on the part of borrowers, lenders and investors that satisfy the once blithely accepted "rationality" properties. The word for these phenomena in the literature today is "frictions". Claudio Borio and his co-authors, and others at the BIS, lacked that vocabulary, but they certainly had the concept. And they understood why it mattered.

Importantly, there is also evidence that central banks – at least my country's central bank – have paid attention too. A recent thesis done at Harvard provided evidence, on the basis of the Federal Open Market Committee's (FOMC's) internal Tealbook forecasts, that the FOMC's interest rate policy is systematically responsive to financial stability considerations in addition to the familiar dual-mandate elements of price stability and maximum sustainable employment. Rather than steering clear of using monetary policy to address financial stability concerns, as the conventional wisdom indicates, or even simply "leaning against the wind" in general, the Federal Reserve specifically leans against *credit*, consistent with the documented impact of credit on financial stability. Further, the thesis showed that, in a world in which expectations do not satisfy the usual strict "rationality" conditions, it is optimal to do just that. Put simply, central banks improve welfare by tightening monetary policy when the uncertainty surrounding households'

behavioural biases increases. One assumes that C E V Borio would not be surprised by these results.

To be sure, Claudio and his colleagues have not focused narrowly on banks and the problems they can cause. One recent Borio paper argued that paying more attention to money growth would have helped central banks anticipate the surge in inflation following the Covid-19 pandemic – certainly a traditional issue in monetary economics. Another analyses the connection between individual price increases and overall inflation in high- and low-inflation regimes – perhaps a non-traditional approach, but again certainly a mainline monetary economics question. But, looking back, the core of Claudio's contribution over the years, indeed decades, has been to further our understanding of how banks and other financial institutions, and the liabilities of both financial and non-financial borrowers, matter for monetary policy and economic stability. For that we are all profoundly grateful. Thank you, Claudio.