



Policymaking in an interconnected world

Luncheon speech by Jaime Caruana

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Let me extend my thanks to President George and the organisers for the opportunity to address this gathering – at an event that is more keenly anticipated by policymakers and journalists with every passing year.

My question today is: Is there scope for more international cooperation in monetary policy? After all, we see international cooperation as essential for financial regulation. Why do we reject keeping one's own house in order as a precept for financial regulation but accept it for monetary policy?

The question is not a new one. In his famous *Critical essays on monetary theory*, Sir John Hicks argued that individual central banks have only limited influence because:

“... they have been *national* central banks. Only in a national economy that is largely self-contained, can a national central bank be a true central bank; with the development of world markets, and (especially) of world financial markets, national central banks take a step down, becoming single banks in a world-wide system Thus the problem that was (partially) solved by the institution of national central banks has reappeared on the world level”.¹

That was in 1967, during the waning days of Bretton-Woods. And financial integration over the past 45 years has made the problem that Hicks identified even more intractable.

The burden of my remarks today is that central banks need to take a more international perspective, recognise their collective influence and take into account monetary policy spillovers. Monetary policy that contributes to financial stability needs more of the cooperation that we already practise in financial regulation.

Let me break my main question into four questions and then turn to each:

1. What was the state of cooperation in financial regulation and monetary policy before the crisis?
2. Where does cooperation stand after the crisis?
3. Why is the scope for international cooperation in monetary policy often underestimated?

¹ J Hicks, *Critical essays on monetary theory*, Oxford University Press, 1967, p 60.



4. Do we need to improve the institutional framework for monetary policy cooperation?

Q1. What was the state of international cooperation in financial regulation and monetary policy before the crisis?

Since the financial liberalisation of the 1970s, the cooperation on regulatory standards for large international banks as embodied in Basel I and II extended well beyond any cooperation in monetary policy outside the euro area. This cooperation involved: (i) exchange of information; (ii) information-sharing based on a common understanding of how the world works; (iii) joint decision-making; and (iv) standards set by an international committee.

The very first papers circulated to the Basel Committee on Banking Supervision (BCBS) in 1975 surveyed the “Rules and practices to protect the banks’ solvency and liquidity”. It turned out that these varied a great deal.² Subsequently, regulators evolved a common intellectual framework and came to speak a common language.³

In 1988, Basel I went one step further, to joint decision-making. It set definitions of capital, risk weights for assets, and, crucially, a minimum ratio of capital to assets. These formulations were based on consensus, not enshrined in a treaty or in international law. Instead, the original Basel accord was enacted in national law and enforced by national regulators.⁴ In fact, market pressure quickly made Basel I the standard even for banks in countries not represented on the BCBS.

The driving forces for this cooperation are well known. As countries liberalised their capital accounts and moved to floating exchange rates, banks seized the opportunity to intermediate international capital flows. Soon after, Bankhaus Herstatt and Franklin National collapsed. These banks were not globally systemically important financial institutions, in today’s parlance, but their messy failures did help to drive forward international cooperation on bank regulation.

When, in August 1982, the big banks suddenly stopped lending to Latin America, Congress increased the IMF’s resources but demanded higher capital levels for big US banks. Concerns about competitive neutrality then prompted the Federal Reserve to pursue joint action in what became Basel I.⁵ Basel III, to be discussed in a moment, has marked an even more explicit shift towards internalising the externalities imposed by big banks and banks’ collective behaviour.

By contrast, monetary policy remained mainly national after the breakdown of Bretton Woods.⁶ Attempts at cooperation were episodic, mainly relating to exchange rates. This gave

² C Goodhart, *The Basel Committee on Banking Supervision*, Cambridge University Press, 2011, p 146.

³ It should be noted that the common intellectual framework never extended across the range of industrial organisation. While there tended to be a consensus on the separation of banking and commerce, practice has always differed regarding the scope of permitted amalgamation across banking, securities and insurance.

⁴ M Giovanoli, “A new architecture for the global financial market: Legal aspects of international financial standard setting”, in M Giovanoli (ed), *International Monetary Law: Issues for the New Millennium*, Oxford University Press, 2000. See also R Lastra, *Legal Foundations of International Financial Stability*, Oxford University Press, 2006.

⁵ E Kapstein, “Supervising international banks: origins and implications of the Basle Accord”, *Princeton Essays in International Finance*, no 185, December 1991; and Goodhart op cit.

⁶ See C Borio and G Toniolo, “One hundred and thirty years of central bank cooperation: a BIS perspective”, in *Past and future of central bank cooperation*, Cambridge University Press, 2008.



monetary cooperation a bad name – especially in countries with current account surpluses, which came under pressure to expand demand. At the level of theory, monetary policy shifted from the 1930s focus on competitive devaluation, first to the post-war treatment of monetary policy as just one instrument in overall macroeconomic stability policy, and then in the past 25 years to the guardian of domestic price stability. Flexible exchange rates, it was thought, would provide buffers against external shocks while policymakers kept their own house in order. In fact, the largest economies not only remained relatively closed but also had banking systems with very low proportions of foreign currency assets.⁷

To be sure, the quality of global monetary policy discussions has advanced over the past generation, as a common intellectual framework evolved. Indeed, one could argue that monetary policymakers shared a more thoroughly elaborated intellectual framework than did their counterparts in financial regulation. Even so, this shared framework could be indifferent (or even hostile⁸) to cooperation in monetary policy.

Q2. Where does cooperation stand after the financial crisis?

The short answer is that we have agreed to cooperate more deeply on the regulatory/financial stability front. But on the monetary policy front, the pre-crisis convergence of views has become strained.

There is little doubt that, since the crisis, we have had the widest, deepest and most far-reaching regulatory cooperation in history. Participation has broadened, coordination has intensified, and implementation will be peer-reviewed.

Institutionally, all G20 members have joined the BCBS. Similarly, the Financial Stability Board's membership has become more inclusive. Emerging market representatives bring useful macroprudential experience to the table. And attention is being paid to vulnerabilities in the shadow banking system, outside the narrow scope of the regulated sector.

Cooperation has intensified with Basel III's requirement for more and better capital, backstopped by a simple leverage ratio and international oversight of weights and implementation. Cooperation has also widened with the inclusion of international standards on liquidity management. Recognition of potential procyclicality in the operation of capital standards has led to the adoption of mutual recognition in the new countercyclical capital requirement, which empowers host country authorities. Tougher solvency standards have been set for banks whose failure could have system-wide effects.

We should not minimise the challenges ahead. I am acutely aware that, even as intended regulatory cooperation has reached an all-time high, the risks of fragmenting banking along national lines have grown. While there are long-standing differences in the tax treatment of loan-loss provisions, national bank bonus taxes have been imposed and now financial transaction taxes are being discussed regionally. While Dodd-Frank is improving the funding model of US-chartered banks, other banks that rely on wholesale funding have gained

⁷ The foreign currency shares of claims on non-banks in the United States, euro area and Japan represent 1%, 5%, and 0.4%, respectively, while (in 2007) the foreign banking shares represented 30%, about 10% (aggregating the euro area) and 4%, respectively. P McGuire and N Tarashev, "International banking with the euro", *BIS Quarterly Review*, December 2007; C Borio, R McCauley and P McGuire, "Global credit and domestic credit booms", *BIS Quarterly Review*, September 2011, p 52.

⁸ K Rogoff, "Can international monetary cooperation be counterproductive?", *Journal of International Economics*, vol 18, 1985, pp 199–217.



markets share in dollar intermediation⁹. While important advances have been made, serious obstacles remain in concerting resolution regimes given different bankruptcy laws.¹⁰

A particularly troubling source of fragmentation along country lines is the inclination to put up national barriers against contagion. As Mario Draghi has said, “even though each of them may be right, collectively they have been wrong”.¹¹ While regulatory cooperation is the prerequisite for open financial markets and the free flow of funds, capital controls seem to be gaining acceptance as a response to the challenge of managing currencies when yields are zero in most major money markets. These developments threaten to segment financial markets, not only in the euro area but around the world. Nevertheless, I remain hopeful that the movement towards global consistency and more harmonisation will prevail over the forces working to fragment international banking regulation and supervision.¹²

On monetary policy cooperation, there were notable steps during the crisis. Widespread, and ultimately in some cases, open-ended, cooperation in foreign-currency funding through central bank swaps had both the monetary goal of controlling the relevant market rates like Libor and the financial-stability goal of providing emergency funding. Such arrangements are temporary. But the willingness of central banks – not least the Federal Reserve – to act quickly and massively averted what could have been a meltdown. The global nature of the crisis also saw episodic cooperation in policy rate setting. For instance, on 8 October 2008, interest rates were simultaneously cut by the Bank of Canada, the Bank of England, the ECB, the Federal Reserve, the Riksbank, the Swiss National Bank and the People’s Bank of China, in a concerted move that was strongly backed by the Bank of Japan.

But a number of issues have strained the pre-crisis convergence of views on monetary policy. What can monetary policy contribute to financial stability? And how does monetary policy work alongside macroprudential action?¹³

Q3. Why is the scope for international cooperation in monetary policy often underestimated?

This question raises three more. First, do flexible exchange rates insulate economies as some theory suggests? Second, are bond markets so globally integrated that policies affecting yields in major countries now have a bigger impact on yields in other countries than they once did, possibly exerting an even larger effect than local policies and conditions? And third, can central banks properly assess the aggregate impact of their actions on global outcomes, or do they suffer from a fallacy of composition?

⁹ Dodd-Frank’s widening of the FDIC assessment for US-chartered banks seems to be improving their funding model but shrinking their share of US dollar intermediation, leaving dependence on wholesale funding elsewhere. See L Kreicher, R McCauley and P McGuire, “Dodd-Frank’s tax on managed liabilities: incidence and balance sheet adjustments”, paper presented to CESifo Venice Summer Workshop on Taxation of the Financial Sector, 20 July 2012.

¹⁰ Financial Stability Board, *Key attributes of effective resolution regimes for financial institutions*, October 2011.

¹¹ Speech by Mario Draghi at the Global Investment Conference, London, 26 July 2012.

¹² At the same time, excessive centralisation can be dangerous, and a shift from cross-border wholesale funding to locally raised deposits would make banks safer. See Bank for International Settlements, *82nd Annual Report*, June 2012, pp 79–83; R McCauley, P McGuire and G von Peter, “After the global financial crisis: from international to multinational banking?”, *Journal of Economics and Business*, 2011.

¹³ “Central banking between past and future: which way forward after the crisis?”, speech at the South African Reserve Bank 90th Anniversary Seminar, Pretoria, 1 July 2011; “Monetary policy in a world with macroprudential policy”, speech at the SAARCFINANCE Governors’ Symposium 2011, Kerala, 11 June 2011.



Starting with **exchange rates**, flexible rates do of course help to insulate a country from inflationary or deflationary shocks coming from abroad. But they do it imperfectly.

First, since major currencies are used internationally, the policy rates set by their issuers directly affect monetary conditions elsewhere. Borrowing in foreign currencies may be rare in the biggest economies, but it can be significant elsewhere.¹⁴ And common monetary and risk factors affect the flow of international bank credit and portfolio capital.¹⁵ Since the crisis, while credit to US households and businesses has barely resumed its growth, dollar loans to such borrowers in the rest of the world has grown at up to 20% and has reached about \$7 trillion.

Second, the foreign exchange market's behaviour does not always satisfy the textbook interest rate or purchasing power parity conditions. Exchange rate movements do not merely compensate for interest or inflation differentials. Instead, most of the time, currencies with an interest rate advantage actually appreciate against lower yielding currencies and can do so for some time, making the domestic industry less competitive. The depreciation of higher-yielding currencies tends to happen fast during episodes of stress in global asset markets, and many emerging market economies have found this destabilising.¹⁶

Next, there is the issue of **international bond markets**. As policy interest rates and official bond purchases affect bond yields, their effects ripple across globally integrated bond markets. This happens even with independent setting of policy rates and floating exchange rates. Large-scale bond purchases can have global effects whether they are part of an explicit monetary policy or a side-effect of currency intervention. There is evidence that the large Japanese interventions of 2003–04 lowered global bond yields, as dollars purchased in the foreign exchange market were invested in bonds. There is also evidence that the Federal Reserve's recent large-scale bond-buying has also reduced global bond yields.¹⁷ So the integration of global bond markets makes for a global interest in policies that, intentionally or not, affect bond yields in major markets.¹⁸

Turning to the possibility of a fallacy of composition, I believe that an international perspective is essential if we are to correctly assess the impact of central bank policies on global outcomes. The price dynamics in commodity markets – which are increasingly similar

¹⁴ Borio et al, op cit, notwithstanding policies to restrain foreign currency borrowing. See M Goldstein and P Turner, *Controlling currency mismatches in emerging market economies*, Peterson Institute for International Economics, Washington, 2004.

¹⁵ See V Bruno and H Shin, "Capital flows, cross-border banking and global liquidity", 2012; N Cetorelli and L Goldberg, "Banking globalization and monetary transmission", *Journal of Finance*, forthcoming; R McCauley, "Risk-on/risk-off, capital flows, leverage and safe assets", Policy Research Institute, Ministry of Finance, Japan, *Public Policy Review*, vol 8, no 3, August 2012, pp 281–97.

¹⁶ See R Clarida, J Davis and N Pedersen, "Currency carry trades regimes: beyond the Fama regression", *Journal of International Money and Finance*, vol 28, 2009, pp 1375–89; and J Gyntelberg and A Schrimpf, "FX strategies in periods of distress", *BIS Quarterly Review*, December, 2011, pp 29–40.

¹⁷ B Bernanke, V Reinhart and B Sack: "Monetary policy alternatives at the zero bound: an empirical assessment", *Brookings papers on economic activity*, 2004-2, pp 1–100; P Gerlach, R McCauley and K Ueda, "Currency intervention and the global portfolio balance effect: Japanese lessons", July 2012; see also C Neely, "The Large-Scale Asset Purchases had large international effects", *Federal Reserve Bank of St. Louis Reserve Working Paper*, no 018B, 2010; and Q Chen, A Filardo, D He and F Zhu, "The impact of QE on emerging market economies", 2012.

¹⁸ J Caruana, "Capital flows to the emerging market economies: a perspective on policy challenges", speech at the 46th SEACEN Governors' Conference, Colombo, Sri Lanka, 24–26 February 2011; P Turner, "Is the long-term interest rate a policy victim, a policy variable or a policy lodestar?", *BIS Working Papers*, no 367, December 2011.



to those in financial markets – could be taken as a signal of global demand pressure rather than being considered by central banks as a supply shock for each of them. Similarly, each emerging market central bank might hesitate to raise interest rates out of concern for capital inflows, given the very low interest rates prevailing in major currencies. Indeed, if central banks were to take an international perspective, they might discover that they would all be better off by raising rates, thereby setting global average interest rates more appropriately.

These questions are not easy to answer. How can we cope with these spillovers: the interconnections arising from the behaviour of exchange rates, the globalisation of bond markets, and the collective impact of policies?

John Hicks knew that the one simple answer to the limitations he identified – a global central bank – would be totally unrealistic. National central banks have national mandates, and meeting these is already difficult enough. We know less about the workings of international linkages than we do about domestic linkages. How interest rates will affect the major centres in other countries depends in part on those countries' own policies and institutions. And it would not be difficult to add to this list.

A number of factors combine to make nation states less than willing to cooperate on monetary policy. For instance, monetary policy can be redistributive, shifting wealth and income between creditors and debtors. This makes it even more politically charged than regulatory policy – if that is possible.

Nevertheless, I do not believe that monetary policy can be restricted to keeping one's "house in order" at all times.¹⁹ While such house-keeping is necessary, monetary policy does require international perspective and cooperation, particularly when it provides the backing for financial stability.

Q4. Do we need to improve the institutional setting for monetary cooperation?

We hope that the structural trend that deepens interdependence, namely the globalisation of financial markets, continues. If it does, there will be periods, in good times and bad, when international spillovers will be substantial and highly relevant for monetary policy. If this notion and the underlying analysis are accepted, then the question arises of how to strengthen cooperation in monetary policy.

This does not necessarily mean monetary policy coordination at the global level, but it does require central banks to better appreciate, internalise and share the side effects that arise from individual monetary policies. This will require a shift to a more global analytical approach, one that seeks to factor in collective behaviour, interactions and feedback effects. This would also help us to better frame international cooperation.

I therefore tend to agree with the recent call²⁰ from prominent academics and practitioners for global considerations to play a more explicit role in monetary policy frameworks. But I am more sceptical about their proposal to formalise cooperative arrangements. The major central banks would not be able to publicly outline the mutual consistency of their policies. Drawing attention to areas of inconsistency and dissent would probably undermine effective cooperation.

¹⁹ See J Caruana, "In honour of Tommaso Padoa-Schioppa: panel remarks", at the Bank of Italy conference in honour of Tommaso Padoa-Schioppa, Rome, 16 December 2011.

²⁰ B Eichengreen, M El-Erian, A Fraga, T Ito, J Pisani-Ferry, E Prasad, R Rajan, M Ramos, C Reinhart, H Rey, D Rodrik, K Rogoff, H S Shin, A Velasco, B Weder di Mauro and Y Yu, *Rethinking central banking*, Brookings Institution, September 2011.



Traditionally, the BIS and the various Basel committees have always sought to complement the domestic analysis at central banks with a more global perspective. The informal but structured nature of the meetings that take place at the BIS has often facilitated analysis and discussion of the many international dimensions of monetary policies.

For example, after providing support to a central bank review of global liquidity,²¹ we are working on regular indicators that seek to capture global financial conditions. These and other global measures also serve as inputs to vulnerability analysis and the early warning exercise conducted by the Financial Stability Board and the IMF. The IMF is playing a role as well, with its spillover reports and macroeconomic policies consistency analysis.²²

Let me conclude by saying that much needs to be done. Moving towards a more cooperative approach makes more sense than reversing the internationalisation of markets and segmenting those markets in the hope of protecting them against spillovers. We need more research on these questions and I hope that some of the powerful analytic talents represented here at Jackson Hole will be brought to bear on them.

²¹ *Global liquidity – concept, measurement and policy implications*, Report submitted by an Ad-hoc Group established by the Committee on the Global Financial System, *CGFS Papers*, no 45, November 2011.

²² IMF, *2012 Spillover report*, 9 July 2012, has background papers on US monetary policy, the impact of global liquidity on commodity and asset prices. US portfolio outflows, correlation of financial prices and spillovers from financial shocks.