

## Glenn Stevens: Challenges for central banking

Address by Mr Glenn Stevens, Governor of the Reserve Bank of Australia, to the Bank of Thailand's 70th Anniversary and 3rd Policy Forum, Bangkok, 12 December 2012.

\* \* \*

Monday marked the 70th anniversary of the commencement of operations of the Bank of Thailand, on 10 December 1942. Conceived under war-time occupation, the Bank has grown to be a key institution in Thailand. It is a pleasure and an honour to come to Bangkok to take part in one of a series of events to mark the anniversary, and I want to thank Governor Prasarn for the invitation.

The Reserve Bank of Australia has long enjoyed a strong relationship with the Bank of Thailand. In 1997, the RBA was among those central banks to enter a swap agreement with the Bank of Thailand shortly after the crisis broke. This was the first part of Australian assistance to the regional partners who were under pressure, which later extended to Korea and Indonesia. In fact, Australia and Japan were the only countries that offered direct financial support to all three countries.

It was a predecessor of mine, Bernie Fraser, who made the suggestion 17 years ago that cooperation in the Asian region might be improved by the establishment of a dedicated institution, along the lines of the Bank for International Settlements in Basel – the “Asian BIS”.<sup>1</sup> Such a body has not come to pass – at least not yet! – but it is fair to say that this suggestion and others like it helped to spur the Basel BIS to reach out to Asia.<sup>2</sup>

The central banks of the region, taking the initiative through the Executives Meeting of East Asian and Pacific central banks – EMEAP (not the most attractive acronym) – have improved cooperation substantially over the years. Thanks to long-term efforts at building relationships, and the vision of key governors and deputy governors, including at the Bank of Thailand, EMEAP has developed into a mature forum for sharing information, and continues to develop its ability to find common positions on global issues and to promote crisis readiness.

Yet as the central banks have grown closer and become more effective in their cooperation, the challenges we face have only increased. Today I want to speak about three of them.<sup>3</sup> First, I will talk about the framework for monetary policy and the need to allow that to consider financial stability. Secondly, I will make some observations about the more prominent role for central banks' own balance sheets that we are seeing in some countries. Then, thirdly, I will offer some observations about international spillovers. In so doing, I am not seeking to deliver any particular messages about the near-term course of monetary policy in either Australia or Thailand.

---

<sup>1</sup> Fraser B (1995), ‘Central Bank Cooperation in the Asian Region’, Address to the 24th Conference of Economists, Adelaide, 25 September.

<sup>2</sup> There was a round of new shareholdings taken up by Asian central banks in the late 1990s, including Thailand in 2000. The BIS established an Asian office in Hong Kong in 1998, and the Asian Consultative Council in 2001. Admittedly, the major shareholdings of the BIS remain overwhelmingly North Atlantic in their focus. But the BIS has made a good deal of progress – more than many institutions perhaps – in addressing the imbalances in global financial governance, even if there is further to go.

<sup>3</sup> The Bank of Thailand quite recently held a conference on exactly this topic, with a number of distinguished speakers. My remarks draw on some of their insights. See Challenges to Central Banks in the Era of the New Globalisation, Bank of Thailand International Symposium 2010, available at <[http://www.bot.or.th/Thai/EconomicConditions/Semina/Pages/Inter\\_Symposium.aspx](http://www.bot.or.th/Thai/EconomicConditions/Semina/Pages/Inter_Symposium.aspx)>

## Monetary policy and financial stability

It is more than two decades since the framework of Inflation Targeting (IT) was pioneered in New Zealand and Canada. The United Kingdom was an enthusiastic early adopter from 1992. Australia adopted IT in 1993.

Among the early adopters, the move to IT was driven by a mixture of principle and pragmatism. The key principle was that monetary policy was, in the end, about anchoring the value of money – that is, about price stability. The pragmatism arose because one or more previous approaches designed to achieve that – monetary targeting, exchange-rate targeting, unconstrained discretion – had proved at best ineffective, and at worst destabilising, for the countries concerned. Hence many of the adopters shared a desire to strengthen the credibility of their policy frameworks. As the initial adopters came to have a measure of success in combining reasonable growth with low inflation, other countries were attracted to the model.

According to the IMF, more than 30 countries now profess to follow some form of IT.<sup>4</sup> The euro area could also be counted among this group though it also professes adherence to the “second pillar” of “monetary analysis”. Even the United States can, I think, be counted as a (fairly recent) IT adopter, since the Federal Open Market Committee is these days quite explicit about its desired inflation performance.<sup>5</sup>

The Bank of Thailand was one of a number of emerging economies that adopted IT around the turn of the century. Twelve years on, Thailand can boast an impressive record of price stability under this framework. A high level of transparency has ensured that financial market participants understand the framework, and view it as credible. Moreover, price stability has not come at the cost of subdued economic growth, with output expanding at a brisk pace in the 2000s.

While inflation targeting is not for everyone, the Thai experience illustrates that, when done well, it can enhance economic outcomes. I can endorse the favourable verdict offered on the Thai experience delivered by Grenville and Ito (2010).<sup>6</sup>

So I think that the adoption of IT, including in Thailand, can be seen as a success in terms of the straightforward objectives set for it. To make such a claim is not, however, to claim that controlling inflation is, alone, sufficient to underwrite stability in a broader sense. If there were any thought that controlling inflation over a two or three year horizon was “enough”, we have been well and truly disabused of that by experience over the past half decade. Price stability doesn't guarantee financial stability.

Indeed it could be argued that the “great moderation” – an undoubted success on the inflation/output metric – fostered, or at least allowed, a leverage build-up that was ultimately inimical to financial stability and hence macroeconomic stability. The success in lessening volatility in economic activity, inflation and interest rates over quite a lengthy period made it feasible for firms and individuals to think that a degree of increased leverage was safe.<sup>7</sup> But

---

<sup>4</sup> IMF (2012), Annual Report, Appendix II, pp 14–16, available at <<http://www.imf.org/external/pubs/ft/ar/2012/eng/pdf/a2.pdf>>.

<sup>5</sup> The Fed points out, quite properly, that it has a dual mandate – “full employment” being the other component. I don't think this precludes being an exponent of IT: the Reserve Bank of Australia has always insisted that it is quite compatible to combine an objective for medium-term inflation performance with the notion that we give due weight to the path of economic activity.

<sup>6</sup> Grenville S and T Ito (2010), “An Independent Evaluation of the Bank of Thailand's Monetary Policy under the Inflation Targeting Framework, 2000–2010”, available at <[http://www.bot.or.th/Thai/MonetaryPolicy/Documents/GrenvilleItoV10\(Oct22\).pdf](http://www.bot.or.th/Thai/MonetaryPolicy/Documents/GrenvilleItoV10(Oct22).pdf)>

<sup>7</sup> Stevens G (2006), “Risk and the Macroeconomy”, Address to the 2006 Securities & Derivatives Industry Association Conference, RBA Bulletin, June, pp 8–17.

higher leverage exposed people to more distress if and when a large negative shock eventually came along. This explanation still leaves, of course, a big role in causing the crisis – the major role in fact – for poor lending standards, even fraud in some cases, fed by distorted incentives and compounded by supervisory weaknesses and inability to see through the complexity of various financial instruments.

That price stability was, in itself, not enough to guarantee overall stability, should hardly be surprising, actually. It has been understood for some time that it is very difficult to model the financial sector, and that in many of the standard macroeconomic models in use, including in many central banks, this area was under-developed. Mainstream macroeconomics was perhaps a bit slow to see the financial sector as it should be seen: that is, as having its own dynamic of innovation and risk taking; as being not only an amplification mechanism for shocks but a possible source of shocks in its own right, rather than just as passively accommodating the other sectors in the economy.<sup>8</sup>

Notwithstanding the evident analytical difficulties, the critique being offered in some quarters is that central banks paid too little attention in the 2000s to the build-up of credit and leverage and to the role that easy monetary policy played in that. It is hard to disagree, though I would observe that this is somewhat ironical, given that IT was a model to which central banks were attracted after the shortcomings of targets for money and credit quantities in the 1980s. It could be noted as well that the ECB always had the 2nd pillar, but the euro area still experienced the crisis – in part because of credit granted in or to peripheral countries, and in part because of exposures by banks in the core countries to excessive leverage in the US.

The upshot is that the relationship between monetary policy and financial stability is being re-evaluated. As this occurs, we seem to be moving on from the earlier, unhelpful, framing of this issue in terms of the question as to whether or not monetary policy should “prick bubbles” and whether bubbles can even be identified. The issue is not whether something is, or is not, a bubble; that is always a subjective assessment anyway in real time. The issue is the potential for damaging financial instability when an economic expansion is accompanied by a cocktail of rising asset values, rising leverage and declining lending standards. One can remain agnostic on the bubble/non-bubble question but still have concerns about the potential for a reversal to cause problems. Perhaps more fundamentally, although the connections between monetary policy and financial excesses can be complex, in the end central banks set the price of short-term borrowing. It cannot be denied that this affects risk-taking behaviour. Indeed that is one of the intended effects of low interest rates globally at present (which is not to say that this is wrong in an environment of extreme risk aversion).

It follows that broader financial stability considerations have to be given due weight in monetary policy decisions. This is becoming fairly widely accepted. The challenge for central banks, though, is to incorporate into our frameworks all we have learned from the recent experience about financial stability, but without throwing away all that is good about those frameworks. We learned a lot about the importance of price stability, and how to achieve it, through the 1970s, 80s and 90s. We learned too about the importance of institutional design. We shouldn't discard those lessons in our desire to do more to assure financial stability. We shouldn't make the error of ignoring older lessons in the desire to heed new ones.

---

<sup>8</sup> Some central banks have given a lot of thought to the question of how to manage financial stability concerns within a standard IT-type framework, though definitive answers have been hard to come by. See for example Bean C (2003), “Asset Prices, Financial Imbalances and Monetary Policy: Are Inflation Targets Enough?”, in A Richards and T Robinson (eds), *Asset Prices and Monetary Policy, Proceedings of a Conference*, Reserve Bank of Australia, Sydney, pp 48–76; Svensson L (2012), “Differing Views on Monetary Policy”, Speech delivered at the SNS/SIFR Finanspanel, Stockholm, 8 June, available at <<http://www.bis.org/review/r120612c.pdf>>. A significant problem is that financial cycles may have a much lower frequency than normal business cycles so incorporating them into a usual two or three year horizon for policymaking is difficult.

Rather, we have to keep both sets of objectives in mind. We will have to accept the occasional need to make a judgement about short-term trade-offs, but that is the nature of policymaking. And in any event, over the long run price stability and financial stability surely cannot be in conflict. To the extent that they have not managed to coexist properly within the frameworks in use, that has been, in my judgement, in no small measure because the policy time horizon was too short, and perhaps also because people became too ambitious about fine-tuning.

We also must, of course, heed the lesson that, whatever the framework, the practice of financial supervision matters a great deal. Speaking of supervisory tools, these days it is, of course, considered correct to mention that there are other means of “leaning against the wind” of financial cycles, in the form of the grandly-labelled “macroprudential tools”. Such measures used to be more plainly labelled “regulation”. They may be useful in some instances when applied in a complementary way to monetary policy, where the interest rate that seems appropriate for overall macroeconomic circumstances is nonetheless associated with excessive borrowing in some sector or other. In such a case it may be sensible to implement a sector-specific measure – using a loan to value ratio constraint or a capital requirement. (This is entirely separate to the case for higher capital in lending institutions in general).

We need, however, to approach such measures with our eyes open. Macroprudential tools will have their place. But if the problem is fundamentally one of interest rates being too low for a protracted period, history suggests that the efforts of regulators to constrain balance-sheet growth will ultimately not work. If the incentive to borrow is powerful and persistent enough, people will find a way to do it, even if that means the associated activity migrating beyond the regulatory perimeter. So in the new-found, or perhaps re-learned, enthusiasm for such tools, let us be realists.

### **The limits of central banking**

That policy measures of any kind have their limitations is a theme with broader applications, especially for central banks. The central banks of major countries were certainly quite innovative in their responses to the unfolding crisis.<sup>9</sup> Numerous programs to provide funding to private institutions, against vastly wider classes of collateral, were a key feature of the central bank response to the situation. In essence, when the private financial sector was suddenly under pressure to shrink its balance sheet, the central banks found themselves obliged to facilitate or slow the balance-sheet adjustment by changing the size of their own balance sheets. This is the appropriate response, as dictated by long traditions of central banking stretching back to Bagehot.

Conceptually, at least initially, these balance-sheet operations could be seen as distinct from the overall monetary policy stance of the central bank. But as the crisis has gone on such distinctions have inevitably become much less clear as “conventional” monetary policy reached its limits.

It was fortuitous for some, perhaps, that the zero-lower bound on nominal interest rates – modern parlance for what we learned about as the “liquidity trap” – had gone from being a text book curiosum to a real world problem in Japan in the 1990s. Japan subsequently pioneered the use of “quantitative easing” in the modern era. This provided some experiential base for other central banks when the recession that unfolded from late 2008 was so deep that there was insufficient scope to cut interest rates in response. So in addition to programs to provide funding to intermediaries in order to prevent a collapse of the financial system

---

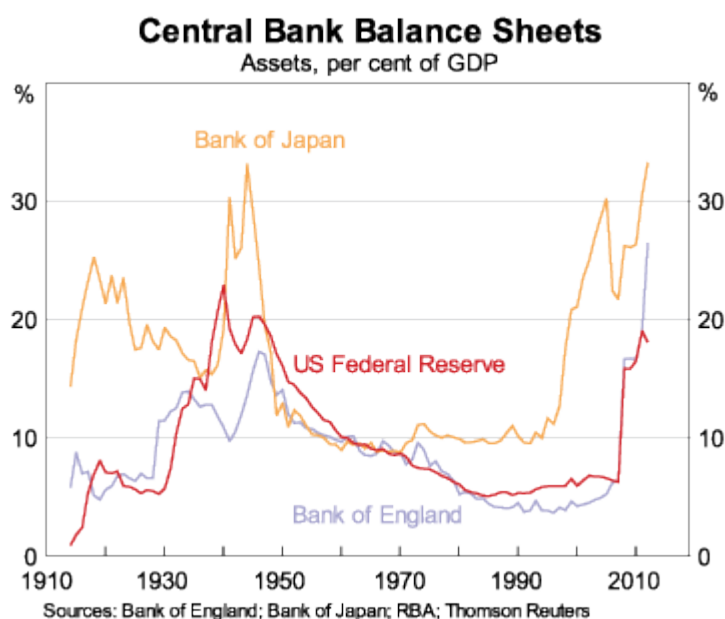
<sup>9</sup> I note parenthetically that several important cross-border initiatives to manage liquidity pressures were put in place very quickly by key central banks. This kind of cooperation at a technical level is something at which the central banks are actually quite good.

when market funding dried up, there have been programs of “unconventional monetary policy” in several major countries over recent years. These have been variously thought of as operating by one or more of:

- reducing longer-term interest rates on sovereign or quasi-sovereign debt by “taking duration out of the market” once the overnight rate was effectively zero
- reducing credit spreads applying to private sector securities (“credit easing”, operating via the “risk taking” channel)
- adding to the stock of monetary assets held by the private sector (the “money” channel, appealing to quantity theory notions of the transmission of monetary policy)
- in the euro area in particular, commitments to lower the spreads applying to certain sovereign borrowers in the currency union (described as reducing “re-denomination risk”).

As a result of such policy innovation, the balance sheets of central banks in the major countries have expanded very significantly, in some cases approaching or even surpassing their war-time peaks (Graph 1). Further expansion may yet occur.

Graph 1



It is no criticism of these actions – taken as they have been under the most pressing of circumstances – to observe that they raise some very important and difficult questions for central banks. There is discomfort in some quarters that central banks appear to be exercising an unprecedented degree of discretion, introducing new policies yielding uncertain benefits, and possible costs.

One obvious consideration is that central banks, in managing their own balance sheets, need to assess and manage risk across a wider and much larger pool of assets. Gone are the comfortable days of holding a modest portfolio of bonds issued by the home government that were seen as of undoubted credit quality. Central bank portfolios today have more risk. To date in the major countries, this has worked well in the sense that long-term yields on the core portfolios have come down to the lowest levels in half a century or more. Large profits have been remitted to governments. But at some point, those yields will surely have to rise.

Of course large central bank balance sheets carrying sizeable risk is hardly news around Asia. Once again, the Bank of Thailand has made an excellent contribution to the international discussion here, having recently held a joint conference with the BIS on central bank balance sheets and the challenges ahead.<sup>10</sup> The difference is that in Asia the risks arise from holdings of foreign-currency assets which have been accumulated as a result of exchange-rate management. There is obviously valuation risk on such holdings. There is also often a negative carry on such assets since yields on the Asian domestic obligations which effectively fund foreign holdings are typically higher than those in the major countries. In effect the citizens of Asia continue to provide, through their official reserves, very large loans to major country governments at yields below those which could be earned by deploying that capital at home in the region.

For the major countries a further dimension to what is happening is the blurring of the distinction between monetary and fiscal policy. Granted, central banks are not directly purchasing government debt at issue. But the size of secondary market purchases, and the share of the debt stock held by some central banks, are sufficiently large that it can only be concluded that central bank purchases are materially alleviating the market constraint on government borrowing. At the very least this is lowering debt service costs, and it may also condition how quickly fiscal deficits need to be reduced. There is nothing necessarily wrong with that in circumstances of deficient private demand with low inflation or the threat of deflation. In fact it could be argued that fiscal and monetary policies might actually be jointly more effective in raising both short and long-term growth in those countries if central bank funding could be made to lead directly to actual public final spending – say directed towards infrastructure with a positive and long-lasting social return – as opposed to relying on indirect effects on private spending.

The problem will be the exit from these policies, and the restoration of the distinction between fiscal and monetary policy with the appropriate disciplines. The problem isn't a technical one: the central banks will be able to design appropriate technical modalities for reversing quantitative easing when needed. The real issue is more likely to be that ending a lengthy period of guaranteed cheap funding for governments may prove politically difficult. There is history to suggest so. It is no surprise that some worry that we are heading some way back towards the world of the 1920s to 1960s where central banks were “captured” by the Government of the day.<sup>11, 12</sup>

Most fundamentally, the question is whether people are fully understanding of the limits to central banks' abilities. It is, to repeat, not to be critical of actions to date to wonder whether private market participants, and perhaps more importantly governments, recognise what central banks cannot do. Central banks can provide liquidity to shore up financial stability and they can buy time for borrowers to adjust. But they cannot, in the end, put government finances on a sustainable course and they cannot create the real resources that need to be found from somewhere to strengthen bank capital. They cannot costlessly correct earlier misallocation of real capital investment. They cannot shield people from the implications of having mis-assessed their own life-time budget constraints and as a result having consumed

---

<sup>10</sup> See BIS (2012), “Are Central Bank Balance Sheets Too Large?”, Proceedings from the 2011 Bank of Thailand-BIS Research Conference: *Central Bank Balance Sheets in Asia and the Pacific: The Policy Challenges Ahead*, Chiang Mai, 12–13 December 2011, available at <<http://www.bis.org/publ/bppdf/bispap66.pdf>>.

<sup>11</sup> Goodhart C (2010), “The Changing Role of Central Banks”, BIS Working Paper No 326, available at <<http://www.bis.org/publ/work326.pdf>>.

<sup>12</sup> A further question is whether significant parts of private markets for which central banks are de facto a more or less complete substitute today will actually resume when central banks seek to step back, or whether those market capacities will have atrophied. This is something the Bank of Japan has long worried about – since it has been involved in QE for more than a decade. It will also be relevant in European inter-bank markets and probably elsewhere. Of course some may not mourn the loss of such markets, but that would be short-sighted.

too much. They cannot combat the effects of population aging or drive the innovation that raises productivity and creates new markets. Nor can they, or should they, put themselves in the position of deciding what real resource transfers should take place between countries in a currency union.

One fears, in short, that while the central banks have been centre stage – rightly in many ways – in the early responses to the crisis, and in buying time for other adjustments by taking bold initiatives over the past couple of years, the limits of what they can do may become more apparent in the years ahead. A key task for central banks is to try to communicate these limits, all the while doing what they can to sustain confidence that solutions can in fact be found and pointing out from where they might come.

### **Challenges with spillovers**

Talking about the challenges associated with large balance-sheet activities leads naturally into a discussion about international spillovers.

In one sense, this is not a new issue. It has been a cause of anxiety and disagreement since the latter days of the Bretton Woods agreement at least. The remark attributed to the then Secretary of the US Treasury in regard to European concerns about the weakness of the US dollar in the 1970s of “it’s our currency, but your problem” was perhaps emblematic of the spillovers of that time. There have been other episodes since.<sup>13</sup> In a much earlier time there was, of course, the “beggar thy neighbour” period of the 1930s – something which carries cogent lessons for current circumstances.

In recent years, as interest rates across a number of major jurisdictions have fallen towards zero and as central bank balance-sheet measures have increased, these developments have been seen as contributing to cross-border flows of capital in search of higher returns. The extent of such spillovers is still in dispute. And, to the extent that they are material, some argue that a world in which extraordinary measures have been taken to prevent crises may still be a better place for all than the counterfactual.<sup>14</sup>

The degree of disquiet in the global policymaking community does seem, however, to have grown of late.<sup>15</sup> Perhaps one reason is the following. In past episodes expansionary policies in major countries, while having spillovers through capital flows, did demonstrably stimulate demand in the major countries. It is open to policymakers in those countries to claim that unconventional policies are having an expansionary effect in their own economies compared with what would otherwise have occurred. But the slowness of the recovery in the US, Europe and Japan, I suspect, leaves others wondering whether major countries are relying more on exporting their weaknesses than has been the case in most previous recoveries. One response to that can be efforts in emerging economies to make their financial systems more resilient to volatile capital flows, such as by developing local currency bond markets

---

<sup>13</sup> The very high US interest rates of the late 1970s and early 1980s had major spillover effects, not least in the western hemisphere. The US bond market sell-off of 1993 and 1994 affected many other countries and was a major point of debate in international meetings of the time. The re-unification of Germany had spillover effects within Europe.

<sup>14</sup> Bernanke B (2012), “U.S. Monetary Policy and International Implications”, Address to *Challenges of the Global Financial System: Risks and Governance under Evolving Globalization*, a High-Level Seminar Sponsored by Bank of Japan-International Monetary Fund, Tokyo, 14 October, available at <<http://www.federalreserve.gov/newsevents/speech/bernanke20121014a.htm>>.

<sup>15</sup> See Caruana J (2012), “International Monetary Policy Interactions: Challenges and Prospects”, Address to the CEMLA-SEACEN Conference on “The Role of Central Banks in Macroeconomic and Financial Stability: the Challenges in an Uncertain and Volatile World”, Punta del Este, Uruguay, 16 November, available at <<http://www.bis.org/speeches/sp121116.pdf>>.

and currency hedging markets.<sup>16</sup> This type of work is underway in various fora, such as the G-20 and EMEAP. But that takes time. Meanwhile people in the emerging economies, and for that matter several advanced economies, feel uncomfortable about the spillovers.

At the same time, it has to be said that spillovers go in more than one direction. While it was common for Asian (and European) policymakers to point the finger at the US for many years over the US current account deficit, with claims that the US was absorbing too great a proportion of the world's saving, the fact was that those regions were supplying excess savings into the global capital market because they did not want to use them at home. That surely had an impact on the marginal cost of capital, to which borrowers and financial institutions in parts of the advanced world responded. We may want to say, in hindsight, that policymakers in the US and elsewhere should have worried more about the financial risks that were building up by the mix of policies that they ran. But we would also have to concede that the US policymakers sought to maintain full employment in a world that was conditioned by policies pursued in parts of the emerging world and especially Asia.

Not only do spillovers go in more than one direction, but those which might arise from policies in this region are much more important now than once was the case. The rapid growth in Asia's economic weight means that policy incompatibilities which partly arise on this side of the Pacific have greater global significance. The traditional Asian strategy of export-driven growth assisted by a low exchange rate worked well when Asia was small. Asia isn't small anymore and so the rest of the world will not be able to absorb the growth in Asian production in the same way as it once did. More of that production will have to be used at home. This is understood by Asian policymakers and progress has been made in reorienting the strategy. I suspect more will be needed.

For central banks in particular, there has been talk about spillovers from monetary policy settings being "internalised" into individual central banks' framework for decision making. Exactly how that might be done is not entirely clear, and discussion is in its infancy; a consensus is yet to emerge. The IMF does useful work on spillovers and the IMF offers, at least in principle, a forum where incompatibilities can be at least recognised and discussed. One more far reaching proposal is for there to be an "international monetary policy committee".<sup>17</sup> That seems a long way off at present.

For spillovers to be effectively internalised, mandates for central banks would need to allow for that. At the present time most central banks are created by national legislatures, with mandates prescribed in national terms. (The ECB of course is the exception, with a mandate given via an international treaty). It would be a very big step to change that and it certainly won't occur easily or soon, though national sovereignty over monetary policy within the euro area was given up as part of the single currency – so big changes can occur if the benefits are deemed to be sufficient.

Whether or not such a step eventually occurs, it is clear that spillovers are with us now. All countries share a collective interest in preserving key elements of the international system, even as individual central banks do what it takes to fulfil their current mandates. It is vital, then, that central banks continue to talk frankly with each other about how we perceive the interconnections of global finance to be operating. We may be limited at times by the national natures of our respective mandates, but those limitations need not preclude cooperative action altogether, as has been demonstrated at various key moments over the past five years. In this region, the EMEAP forum offers great potential to further our mutual

---

<sup>16</sup> Nishimura K (2012), "Future of Central Bank Cooperation in Asia, Latin America, and Caribbean States", Remarks at the BOJ-CEMLA Seminar on Regional Financial Cooperation, Tokyo, 11 October, available at <[http://www.boj.or.jp/en/announcements/press/koen\\_2012/data/ko121011a1.pdf](http://www.boj.or.jp/en/announcements/press/koen_2012/data/ko121011a1.pdf)>.

<sup>17</sup> Committee on International Economic Policy and Reform (2011), "Rethinking Central Banking", September, available at <<http://www.brookings.edu/research/reports/2011/09/ciepr-central-banking>>



understanding and ability to come to joint positions on at least some issues. Internationally, the BIS of course is also a key forum for “truth telling” in a collegiate and confidential setting and one in which the central banks of this region are playing an increasingly prominent role. There will need to be much more of this in the future.

## **Conclusion**

The Bank of Thailand and the Reserve Bank of Australia have, in our respective histories, faced challenges, some of them severe ones. We have learned much from those experiences. In recent years, we have had our own distinct challenges. Fortunately, we have not been directly at the centre of the almost unprecedented challenges faced by our colleagues in major countries, though we have all been affected in various ways.

The future in Asia is full of potential, but to realise that we have to continue our efforts to strengthen our own policy frameworks, learn the appropriate lessons from the problems of others, and continue our efforts to cooperate on key issues of mutual interest. As the Bank of Thailand moves into its eighth decade, I am sure you will rise to the challenge.

Thank you again for the invitation to be here, and Happy Birthday!