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Monetary policy coordination or not – is that the issue here?

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The financial and economic crisis presented central banks around the world with challenges, and continues to do so today. The international scale of the crisis and monetary policy measures seem at first to suggest coordinating monetary policy between the industrialised countries and the BRICS nations.

However, this can hardly serve to justify coordinating monetary measures under normal circumstances too. This requires the country-specific advantages of coordination to be sufficiently large and certain. Establishing this fact fails simply because the international spillover effects of monetary policy actions can only be determined with sufficient reliability after some time.

An international system of monetary policies that incorporates the emerging market economies should therefore be established gradually. In a first step, the systematic exchange of information could be intensified and more in-depth knowledge of international relationships fostered.

The central banks of the US (Fed), the euro area (ECB), the UK (BoE) and Japan (BoJ) have taken unconventional monetary measures to combat the economic and financial crisis. As the US plays a central role on the international financial markets and in the global economy, the Fed's actions are expected to have the biggest impact on other economies.

The first package of measures, namely the Fed's quantitative easing, was introduced when the stability of the international financial system was severely threatened. As such, it was largely approved of by emerging market economies. In contrast, beginning with the second bundle of quantitative easing measures, a debate about the benefits of the Fed's unconventional monetary policy was triggered. The global economy was no longer about to collapse and the Fed's measures that were tailored for the domestic economy were no longer equally beneficial for other countries.

Larger emerging market economies in particular, such as India or Brazil, voiced their criticism in the debate about the lack of attention paid to the disadvantageous effects on their economies and deplored the absence of coordination on monetary policy. This is hardly surprising, as it is the large emerging market economies in particular that are strongly involved in international trade and / or financial flows. The monetary policy actions of industrialised countries could potentially have the greatest impact on them, even if they had taken measures after the previous crises to reduce excessive spillover effects. Developing and emerging countries in particular reduced their foreign currency debt, built up international reserves and allowed the exchange rates to float.

Nonetheless, coordinating monetary policy with emerging countries could also be of interest to the industrialised countries. The BRICS countries (Brazil, Russia, India, China and South Africa), as the largest emerging market economies, are now sufficiently involved in international trade and capital flows that repercussions could emerge for the industrialised countries. At the same time, the monetary policy regimes of these five states vary to such an extent that different cause-and-effect relationships can be expected.

Conditions for coordination: sufficiently large and certain advantages

Central banks are charged with providing for the well-being of their own economies. They usually take account of other economies in their deliberations only if they are expected to have repercussions for their own economies, or an exchange rate target is to be explicitly pursued.

Under these conditions, international co-

Box 1: Opinions on international coordination of monetary policy[a)]

"International policy coordination is like the Loch Ness monster: much discussed but rarely seen." (Blanchard Ostry and Gosh)[b)]

"But no central bank is going to act contrary to the self-interest of their own country to a material degree for the collective good; they don't have a mandate to do so." (Stevens)[c)]

"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." (Cuarana)[d)]

"Overall, the kind of 21st century cooperation that I am thinking of will not come easy. It might get even harder as time passes, when the curtains fall on this crisis and when complacency sets in, even as the seeds of the next crisis perhaps are being planted." (Lagarde)[e)]

"International coordination on monetary policy has broken down. Industrial countries have to play a part in restoring that, and they can't at this point wash their hands off and say 'we'll do what we need to and you do the adjustment'." (Rajan)[f)]

Note: This paper contains the opinion of the authors and does not necessarily represent the position of the KfW.

Box 2: International spillover effects of monetary policy

International policy coordination is not necessary if a central bank can reach the targeted level of stability by deciding about monetary policy solely on the basis of the domestic economy, and where interactions with other countries via the exchange rate and real trade flows are minor. Welfare gains of policy coordination are only possible if international spillover generate external effects in other countries and potentially lead to monetary policy reactions there.

The occurrence of such externalities in national monetary policy depends on a variety of factors. The exchange rate regime, price and wage inertia both at home and abroad, and the pricing behaviour of exporters generally determine the spillover effects. Other factors are the possibility of risk sharing via financial markets, the asymmetric impact of shocks on individual sectors of an economy, the possibility to substitute between domestic and foreign goods, the use of imports as intermediate products and not for consumption only, as well as the varying shares of tradable goods produced.

Theoretical models show that coordination of monetary policy can lead to welfare gains in case of both country-specific and global shocks if multiple inefficiencies are assumed (e. g. Tchakarov 2004).[9)]

ordination of monetary policy[1] – which is understood as the internationally coordinated, mutual adjustment of policies – is only justified if it offers net benefits to the domestic economy. This requires that

- if national interests were followed at the expense of other economies – e. g. under catch phrases such as currency wars, beggar-thy-neighbour politics or protectionism – all participants would ultimately be worse off than with a coordinated monetary policy.

- the advantages are big enough to justify the expense and effort of coordination and possibly lower level of stability of the domestic economy. Or vice versa: international coordination is unnecessary if national monetary policy can independently achieve the targeted level of stability for the domestic economy.

Integrated financial markets and cross-border trade flows ensure that monetary policy impulses are transmitted internationally

Monetary policy can only impact on other countries if its impulses are transmitted internationally through trade and capital flows (see box no. 2 for the underlying mechanism). It is not surprising that spillover effects between countries have increased over time.[2]

The BRICS nations are becoming increasingly entwined with the world economy. The share of imported and exported goods relative to gross domestic product (GDP) increased more for China, India and South Africa between 1980 and 2013 than for the US, UK, Japan and the Euro Area (see figure 1, illustration on the left). Russia's openness for world trade has remained fundamentally unchanged since 1992, while that of Brazil is even declining. A very similar picture emerges if cross-border services are included (see figure 1, illustration on the right).

In principle, the importance of trade between emerging and industrialised countries develops conversely for the BRICS and the four economies looked at here. While trade with the BRICS countries has become increasingly important over time for the industrialised countries, for the BRICS, the share of trade with the industrialised countries has declined for since the beginning of the 2000s. The latter also reflects the growth in South-South trade between developing and emerging countries.

Capital flows are to be known to be the counterpart to goods and services flows. Volume and volatility of gross capital flows has also increased considerably since the 1970s. This is concealed by offsetting in- and outflows against one another, as net flows appear relatively stable compared to gross flows.[3,4]

The size of coordination gains can only be identified empirically

Ultimately, the extent of spillover effects between economies has to be determined empirically. Up to the end of the 1990s, spillover effects were considered to be too small to justify policy coordination. Estimates for welfare gains ranged from half to one per cent of GDP p. a. However, investigations often concentrated on industrialised countries. Spillover, for example, between the USA and the eurozone was classified as small, even before the last crisis.[5] In contrast, greater welfare gains were presumed – for example in 1985 – for monetary policy coordination with developing countries.[6]

Figure 1: International trade in goods and services

Note: EA18 from 1999, RS from 1992, SA from 1998

Sources: Thomsons Reuters Datastream; IMF (DOTS); World Bank (WDI); Eurostat; own calculations.

Monetary policy of the Fed leads to international capital flows and exchange rate reactions

Heavy demands have been placed on monetary policy since the financial and economic crisis started in 2008/2009. American monetary policy passed through a cycle of interest rate cuts from mid-2007 to the end of 2008, which was soon followed by the ECB, BoJ and the BoE. Monetary policy interest rates were close to zero at the end of the cycle, so that unconventional monetary measures were necessary, particularly to support the domestic economy. The Fed played the pioneering role here too.

The BRICS countries also prioritised rescuing international financial markets and combating the global recession, which eclipsed all other objectives. The Fed's first unconventional measures therefore met with quite a unanimous international response, despite leading to pro-cyclical capital flows for the BRICS countries.

In contrast, the subsequent expansionary measures were criticised increasingly, as the financial markets were no longer in acute danger and the international dimension of the Fed's monetary policy faded into the background.[7] At the same time, monetary policy became more complicated for the BRICS countries with every new package of measures (see appendix). They had to balance policy decisions for supporting the domestic economy and managing inflation with measures for managing capital flows and the exchange rate.

In some instances, emerging market economies were able to actually shield themselves from the effects of the Fed's policy by pursuing an active monetary policy and reliance on functioning institutions. All in all, the international spillover effects of Fed monetary policy did not prevent macroeconomic stabilisation in emerging countries altogether. However, they did make it more difficult.

A less expansive monetary policy by the Fed, at least from the second package of measures onwards, would most probably have been more advantageous for emerging countries, as it would have made it easier for them to stabilise their domestic economies. Even so, the international spillover effects via financial markets changed from the first to the second package of measures. It would have been extremely difficult a priori to assess how much less expansive the Fed's reactions and how less active the BRICS countries would have had to act without harming their domestic economies. This is a task that could hardly be resolved even in a stable economic environment, where the cause and effect relationships of monetary policy are relatively well-known. In addition, the spillover effects between the emerging countries vary.

The financial and economic crisis offers no blueprint for policy coordination under normal circumstances

Potential monetary policy coordination with emerging market economies, and in particular the BRICS countries, requires at least that national monetary policy is essentially effective. Indeed, the transmission channels of monetary policy have changed in emerging market economies. They have provided the national central banks with the necessary scope to react to the monetary policy pursued by the Fed and the other three central banks.[8]

Nonetheless, the debate about monetary policy coordination between industrialised and emerging countries during and after the financial and economic crisis is defined by special features:

- Spillover effects of monetary policy are now greater than before the Great Moderation,[9] so that the advantages of coordination are inherently increasing.

- The advantages of coordination increase when there is uncertainty – such as in a crisis[10].

- The emerging market economies explicitly demand to be included in the coordination.[11]

The issue of whether monetary policy could or should be coordinated at an international level has been discussed for a long time.[12] However, the current episode of unconventional monetary policy shows two special features:[13]

- The quantitative easing measures are unusually prolonged and extensive.

- With little previous experience of quantitative easing, it is unknown how extensive it has to be in order to be effective.

Accordingly, it has been and is difficult to forecast and assess the effects of the policy actions promptly. But this is precisely what coordination requires: agreement on transmission mechanisms and expected effects. If this is not possible, doing nothing can be more reasonable than carrying out counter-productive measures. Furthermore, the spillover effects can be much greater in times of crisis and when there is uncertainty than under normal circumstances. It would then be premature to conclude from the effects of the unconventional monetary policy that there is a general need for coordination.

Even if industrialised and large emerging countries could agree that coordination is indeed reasonable, it would be difficult to arrive at a specific arrangement.[14] The countries would have to evaluate the scope and direction of the individual economic development and spillover effects equally. The decision-makers would also have to recognise the compromises needed between different policy objectives.

It therefore seems more realistic to gradually incorporate emerging market economies into a new international monetary policy system. Agreeing on policy actions is only the last step of possible coordination measures between central banks. The exchange of information between central banks, as is already being done, is less far-reaching and also less invasive for domestic monetary policy.[15] This is where any attempt to intensify the cooperation would start. The next step is for the effects of national monetary policy abroad to be systematically taken into consideration. For this purpose, existing institutions such as the Bank for International Settlement or the IMF could be used and further developed, as is shown for example by the IMFs spillover reports. The next major step would be the multilateral and equal recognition of these effects in the decisions taken on

national monetary policy, which go beyond the mere repercussions for the respective domestic economy. ■

Appendix

Impact of Fed monetary policy in developing countries and emerging market economies

- **Package of measures 1** of the unconventional monetary policy (QE1; 25th November 2008–31st March 2010; provision of liquidity, government bond, agency bonds and mortgage-backed securities (MBS) purchases) led to the appreciation of the dollar and to portfolio shifts in favour of US securities. Accordingly, capital was withdrawn from the developing and emerging countries.

The central banks of the BRICS nations also pursued an expansive monetary policy, as a result of the interest rate cuts in the industrialised countries and due to the spillover effects from the international financial crisis. Interest rate cuts by the BRICS countries were also justified by their domestic economic situations. Productivity fell below potential and inflation rates were lower (see figure 2).

- **Package of measures 2** of the unconventional monetary policy (QE2; November 2010–30th June 2011; above all US government bond purchases) led to currency appreciation in the developing and emerging countries, as well as to portfolio shifts. The latter was identified as inflows of capital (in particular bond funds) as well as outflows (above all equity funds) in emerging countries.[16]

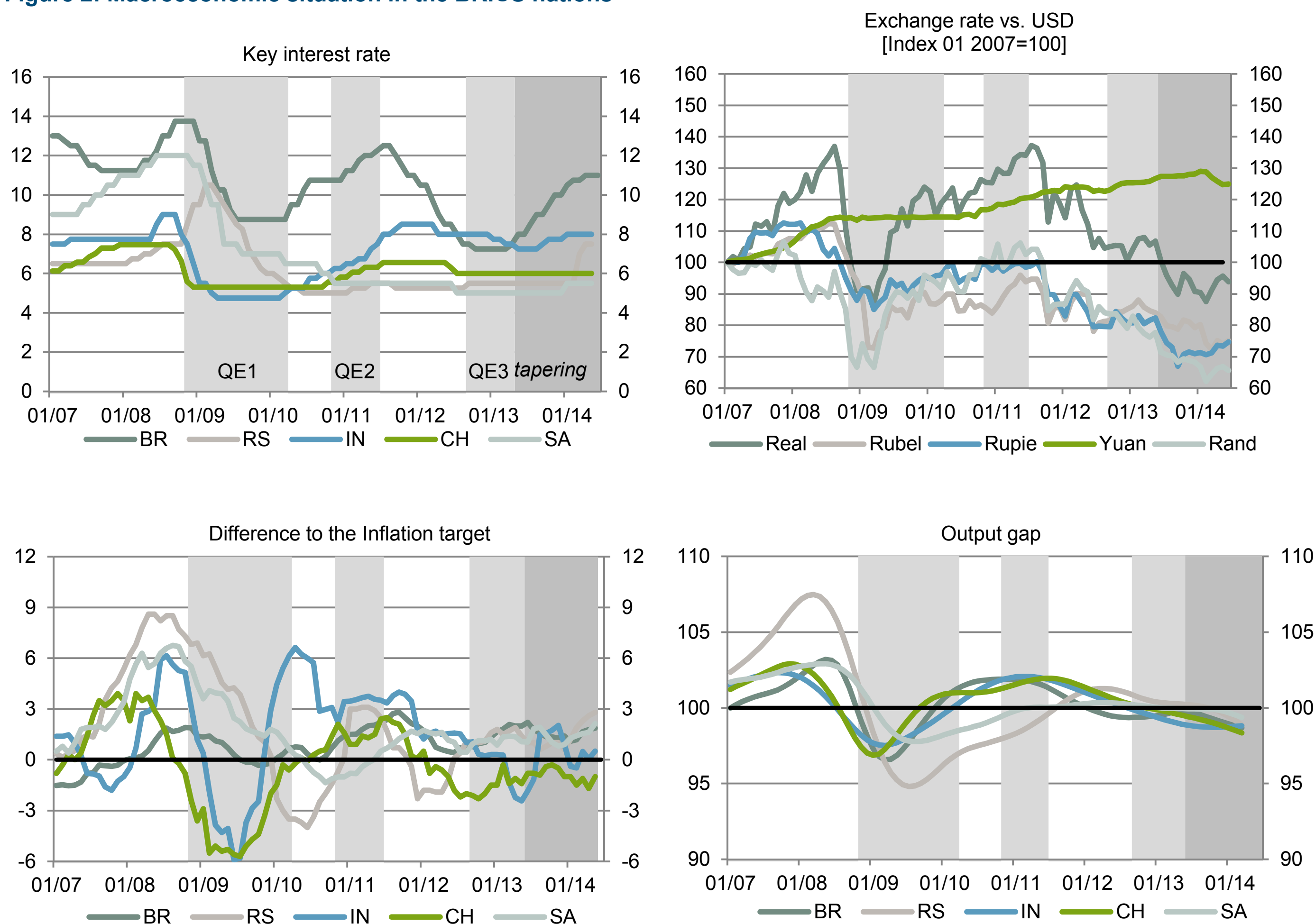
- **Package of measures 3** of the unconventional monetary policy (QE3; September 2012–to date; government bond and MBS purchases) led to a further inflow of capital to emerging market economies.

Both the announcement and, to an even greater extent, the actual implementation heightened the inflow of capital to emerging markets.[17] At the same time the appreciation of the currencies is likely to have impacted growth in emerging countries.[18]

In addition to the monetary measures, the countries attempted to varying degrees to manage capital flows.[19] These ranged from influencing the exchange rates, as was the case in Brazil, over abolishing restrictions to promote FDI inflows, to liberalising capital outflows in South Africa.

The BRICS countries' gaps in output show that the real economic situation did not improve any further during the respective periods. At the same time, there was a certain build-up of inflationary pressure during QE2. That is why all central banks, with the exception of

Figure 2: Macroeconomic situation in the BRICS nations



Sources: Thomson Reuters Datastream; FERI ; OECD, own calculations

South Africa, raised interest rates. On the other hand, with the start of QE3, inflation rates were relatively close to or below their target values, and some of the central banks of the BRICS nations had previously lowered interest rates between QE2 and QE3.

- **Phasing out of Q3** (tapering; announced in May 2013 – planned exit in October 2014; run-down of bond purchases): The end of the unconventional measures cannot be equated to the end of expansionary monetary policy. Nonetheless, even the Fed's announcement of tapering provoked strong reactions on the financial markets at least in the short-run.

The IMF already warned in 2011 that the future reversal of the unconventional monetary measures could lead to a change in the capital flows in emerging market economies. However, the investigations carried out so far arrive at different conclusions with regard to the extent of the triggered capital flows. It is thus not certain if countries with stronger fundamental data were actually affected less by the market turbulence (exchange rate fluctuation and capital outflows).[20] After all, these had the strongest capital inflows previously.

Although a final verdict on the exact implications is still outstanding, one thing is quite clear already: tapering was not in the interests of emerging market economies. These countries had to take a more restrictive monetary policy stance to counter currency devaluations and capital outflows, even if the economic situation would have required more expansive measures.

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a) Own translations.

b) Blanchard, O., Ostry, J. D. and A. R. Gosh (2013), International Policy Coordination: The Loch Ness Monster, IMFdirect, 15th December 2013.

d) Stevens, G. (2013), Challenges for Central Banks, in: BIS (ed.) Navigating the Great Recession: what role for monetary policy? BIS Papers No. 74.

d) Cuarana, J. (2012), Policymaking in an interconnected world, Luncheon speech at the Federal Reserve Bank of Kansas City's 36th Economic Policy Symposium on "The changing policy landscape", 31st August 2012.

e) Lagarde, C. (2014), A New Multilateralism for the 21st Century, Richard Dimbleby Lecture, 3rd February 2014.

f) Rajan, R. (2014), Why the world is unprepared for rising interest rates, Australian Financial Review, 12th February 2014, http://www.afr.com/p/world/why_the_world_is_unprepared_for_z3xvFlRYyyl65QNHuvv7AK

g) Tchakarov, I. (2004), The Gains from International Monetary Cooperation Revisited, IMF Wokring Paper No. 1.

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[1] Eichengreen, B. (2013), Currency War or International Policy Coordination?, White Paper, January 2013, http://eml.berkeley.edu/~eichengr/curr_war_JPM_2013.pdf.

[2] Ostry, J. D. und A. R. Gosh (2013), Obstacles to International Policy Coordination, and How to Overcome Them, IMF Staff Discussion Note No. 11.

[3] Broner, F., Didier, T., Erce, A. and S. L. Schmukler (2013), Gross capital flows: Dynamics and crises, Journal of Monetary Economics 60 (1): 113–133.

[4] The sudden reversal or collapse of capital flows from abroad often accompany crises in industrialising countries. Such a collapse then impacts on all types of capital flows.

[5] Coenen, G., Lombardo, G., Smets, F. and R. Straub (2008), International Transmission and Monetary Policy Cooperation, ECB Working Paper No. 858.

[6] Sachs, J. and W. J. McKibbin (1985), Macroeconomic Policies in the OECD and LDC External Adjustment, NBER Working Paper 1534.

[7] IMF (2012), 2012 Spillover Report, IMF Policy Paper.

[8] Mohanty, M. S. and P. Turner (2008), Monetary policy transmission in emerging market economies: What is new?, BIS Paper No. 35.

[9] McKibbin, W. J. (1997), Empirical Evidence on International Economic Policy Coordination, in: Fratianni, M., D. Salvatore and J. von Hagen, Macroeconomic Policy in Open Economies, Chapter 6; Lui, Z. and E. Pappa (2005), Gains from international monetary policy coordination: does it pay to be different?, ECB Working Paper No. 514.

[10] Ghosh, A., and P. Masson (1988), International Policy Coordination in a World with Model Uncertainty, IMF Staff Papers No. 35: 230–58.

[11] Rajan, R. (2014), Why the world is unprepared for rising interest rates, Australian Financial Review, 12th February 2014, http://www.afr.com/p/world/why_the_world_is_unprepared_for_z3xvFlRYyyl65QNHuvv7AK

[12] Cooper already recognised in 1968 that mutual interdependence must be taken into account in international policy analysis, Cooper, R. (1968), The Economics of Interdependence (New York: McGraw-Hill): 157–58.

[13] Cecchetti, S. G., Kydland, F. E., Caruana, J., Aziz, Z. A., Jordan, T. and G. Stevens (2013), Navigating the Great Recession: what role for monetary policy?, BIS Paper No. 74.

[14] Ostry, J. D. and A. R. Ghosh (2013), Obstacles to International Policy Coordination, and How to Overcome Them, IMF Staff Discussion Note SDN/13/11.

[15] Cooper, R. N. (2006), Almost a century of central bank cooperation, BIS Working Paper No. 198.

[16] IMF (2013), Global Impact and Challenges of Unconventional Monetary Policies, IMF Policy Paper.

[17] Neely, C. J. (2010), The large scale asset purchases had large international effects, Federal Reserve Bank of St. Louis Working Paper 2010-018; Fratzscher, M., Lo Duca, M and R. Straub (2013), On the International Spillovers of US Quantitative Easing, ECB Working Paper No. 1557.

One exception is Russia, which saw relatively strong capital outflows (IMF(2013), Global Impact and Challenges of Unconventional Monetary Policies, IMF Policy Paper, Background Paper).

[18] This was not associated with productivity gains but with capital inflows ((Bussière, M., Lopez, C. und C. Tille (2014), Do Real Exchange Rate Appreciations Matter for Growth?, MPRA Paper No. 54892.)

[19] IMF (2013), Global Impact and Challenges of Unconventional Monetary Policies, IMF Policy Paper.

[20] See literature overview in Mishra, P., Moriyama, K., N'Diaye, P. and L. Ngyen (2014), Impact of Fed Tapering Announcements on Emerging Markets, IMF Working Paper No. 109.