

Rules of the Monetary Game¹

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¹ The views represent those of the authors and not of the Reserve Bank of India, or any of the institutions to which the authors belong.

In order to avoid the destructive beggar-thy-neighbor strategies that emerged during the Great Depression, the post-war Bretton Woods regime attempted to prevent countries from depreciating their currencies to gain an unfair and sustained competitive advantage. The regime required fixed, but occasionally adjustable, exchange rates and restricted cross-border capital flows. Elaborate rules on when a country could move its exchange rate peg gave way, in the post-Bretton Woods world of largely flexible exchange rates, to a free for all where the only widely proscribed activity was sustained uni-directional intervention in one's exchange rate – typically buying foreign currency to keep the domestic currency undervalued. A widely held view till recently was that each country, doing what was best for itself in a regime of mobile capital, would end up doing what was best for the global economy. For instance, a country trying to unduly depreciate its exchange rate through aggressive monetary policy would see inflation rise to offset any temporary competitive gains. However, even if such automatic adjustment ever did work, which is still an open question, the global environment has changed. Today, we have:

- Weak aggregate demand, in part because of the poorly understood consequences of population ageing and the productivity slow down.
- Significant long-term unemployment.
- A more integrated and open world with large and mobile capital flows.
- Countries with very different institutions with varying degrees of credibility.
- Significant government and private debt burdens.
- Sustained low inflation.

Most central banks have a mandate which focuses them on domestic outcomes such as keeping inflation within a target range, and maximizing employment consistent with those inflation outcomes. The pressure to avoid a consistent breach of the lower bound of their inflation target and the need to restore growth to reduce domestic unemployment has led central banks to undertake increasingly unconventional monetary policies (UMP), as well as direct exchange rate or financial market interventions/repression. These may have large adverse spillover effects on other countries, spillovers that were overlooked when policy was more conventional.²

² See for example, Baskaya, et. al., 2017, “International Spillovers and Local Credit Cycles”, for some recent evidence on spillovers to emerging markets.

Moreover, such policies have become a target for politicians. Some accuse central bankers of exceeding their mandate and favoring one domestic constituency over another (e.g., borrowers over savers, rich over poor). Others point their fingers abroad, and accuse other countries of gaining undue competitive advantage through unconventional monetary policies.

Unfortunately, the domestic mandates of most central banks do not allow them to take external spillovers into account, and may impel them to undertake aggressive policies so long as they have some small positive domestic effect. Such actions are unlikely to be received as benignly as they were in the past. The rise of nationalist populist movements, with their inherent suspicion of elite- and expert-dominated technocratic institutions such as central banks, makes the situation particularly ripe for misunderstanding. Misunderstandings can lead quickly to trade wars and embargos on cross-border investment.

Today's inward-looking politics make it very unlikely that countries will accept anything more than domestic mandates for their central banks. Broad policy coordination between central banks is impractical on an ongoing basis, opens central banks to the nationalist accusation they are violating their domestic mandates for the global good, and is thus possible only in emergency situations where there is complete agreement on the course of actions. There is, however, one alternative. Central banks operate within generally accepted "rules of the game". Could these be rewritten in light of modern developments? That is the focus of this paper.

The Problem with the Current System

All monetary policies have external spillover effects. If a country reduces domestic interest rates, its exchange rate also typically depreciates, helping exports. The key, however, is that under normal circumstances, the "demand creating" effects of lower interest rates on domestic consumption and investment swamp the "demand switching" effects of the lower exchange rate in enhancing external demand for the country's goods. Indeed, one could argue that the spillovers to the rest of the world could be positive on net, as the enhanced domestic demand draws in substantial imports, offsetting the higher exports.

Matters are less clear in the circumstances we find ourselves in today, and with the unconventional monetary policies countries are adopting. For instance, if spending by the interest rate sensitive segments of the economy is constrained by existing debt burdens, lower rates may have little effect on enhancing domestic demand, but continue to have demand switching effects through the exchange rate.

Similarly, the unconventional “quantitative easing” policy of buying assets such as long term bonds from domestic players may certainly lower long rates but may not have an effect on domestic investment if aggregate capacity utilization is low. Indeed, savers may respond to the increased distortion in asset prices by saving more. And if certain domestic institutional investors such as pension funds and insurance companies need long term bonds to meet their future claims, they may respond by buying such bonds in less distorted markets abroad. Such a search for yield will depreciate the exchange rate. The primary effect of this policy may be through the demand switching effects of a lower exchange rate rather than through a demand creating channel.

Other countries can react to the consequences of unconventional monetary policies, and some economists argue that it is their unwillingness to react appropriately that is the fundamental problem.³ Yet concerns about monetary and financial stability may prevent those countries, especially less institutionally developed ones, from reacting to offset the disturbance emanating from the initiating country.

As Hyun Song Shin has argued in various papers, allowing unchecked appreciation when capital is flowing in could create feedback loops where corporate equity rises with exchange rate appreciation, which allows firms to borrow yet more. Cutting interest rates when capital is flowing in may just encourage the asset price and credit boom. Macro prudential tools may not be sufficient to deter such capital inflows. Countries then risk a rise in the exchange rate that renders firms uncompetitive even as debt builds up to a level that necessitates substantial profit margins to service. Capital inflows could thus contribute to systemic fragility.

³ See, for example, Bernanke, Ben S (2015)., “Federal Reserve Policy in an International Context”, paper presented at the 16th Jacques Polak Annual Research Conference, IMF, November 5-6, 2015.

That fragility comes to the fore when capital starts flowing out, often because rising policy rates and improving growth prospects in industrial countries attracts capital home. While the textbook advice may be to allow the depreciation in times of capital outflows, countries typically tend to be wary of their exchange rate overshooting on the downside, especially given the possibility that some domestic corporations may have un-hedged foreign currency debt. Countries which lack credible fiscal and monetary frameworks may also be concerned about the fiscal and inflationary consequences of exchange depreciation – unlike industrial countries where there is broad confidence that inflation will be contained, any nominal currency depreciation in an emerging market could lead quickly to domestic inflation, offsetting any gains in competitiveness. Moreover, any temporary gain in competitiveness may not lead to substantially greater exports if domestic corporations are debt constrained and cannot increase goods supply.

In other words, spillover effects can be substantial and hard to avoid or offset. Quite possibly, if all countries had strong macroeconomic policy frameworks, credible institutions, and moderate politics, spillover effects would be much more muted. However, a globally responsible assessment of policies should take the world as it is, rather than as a hypothetical ideal. After all, some of the reasons industrial countries want to desperately avoid deflation is because real world frictions such as wages that cannot be cut and debt with fixed nominal rates inhibit a smooth adjustment to price declines!

Ultimately, if all countries engage in demand switching policies, we could have a race to the bottom. Countries may find it hard to get out of such policies because the immediate effect for the country that exits might be a serious appreciation of the exchange rate and a fall in domestic activity. Moreover, the domestic consequences of unconventional policies carried into the medium term need not be benign if unconventional or aggressive monetary policies distort asset markets and lead to debt build up, with an eventual disastrous denouement.

The bottom line is that simply because a policy is called monetary, unconventional or otherwise, it may not be beneficial on net for the world. That all monetary policies have external spillovers does not mean that they are all justified. What matters is the relative

magnitude of demand creating versus demand switching effects, and the magnitude of other net financial sector spillovers, that is, the net spillovers.

Today, central banks emphasize their domestic mandate while justifying all manner of policies in international fora, without acknowledging the unmentionable – that external spillovers may be significantly adverse. Unfortunately, even if they do not want to abdicate international responsibility, their domestic mandates may give them no other option. A way forward if we are to achieve better outcomes for the world, is for the domestic mandate to operate within rules that embed international responsibilities.

Principles for Setting New Rules

Demand shifting policies mean some other country bears the costs of the policy initiating country's growth recovery. This temptation to shift costs can create globally sub-optimal outcomes and international recrimination when countries set their policies in an unconstrained way. If countries agree on a set of new rules or principles, which describe the limits of acceptable behavior, it can lead to higher welfare in all the countries. This does not mean countries have to coordinate policies, only that they play by fair rules – provided we can find clear and mutually acceptable rules.

What would be the basis for the new rules? As a start, policies could be rated based on analytical inputs and discussion. To use a driving analogy, policies that have few adverse spillovers, and are even to be encouraged by the global community should be rated Green, policies that should be used temporarily and with care could be rated Orange, and policies that should be avoided at all times could be rated Red.

A number of issues need to be considered in developing a framework to rate policies.

- Should a policy that has any adverse spillovers outside the country of origin be totally avoided? Or should the benefits in the country of origin be added to measure the net global effects of the policy? In other words, **should we consider the enhancement to global welfare or only the net spillovers to others in judging policy?**

- Should the measurement of spillovers take into account **any policy reactions by other countries?**
- Should domestic benefits weigh more and adverse spillovers weigh less for countries that have run out of policy options and have been stuck in slow growth for a long time? **Should countries be allowed jump starts facilitated by others?**
- **Should spillovers be measured over the medium term or evaluated at a point in time?**
- Should spillovers (both positive and negative) be weighted more heavily for poorer countries that have weaker institutions and less effective policy instruments?
- Should spillovers be weighted by the affected population or by the dollar value of the effect?

Some tentative answers follow.

In general, policies that have net adverse outside spillovers over time could be rated red and should be avoided. Such policies obviously include those that have small positive effects in the home country (where the policy action originates) combined with large negative effects in the foreign country (where the spillovers occur). For example, if unconventional monetary policy actions lead to a feeble recovery in some of the advanced countries leading to small positive effects on exports to emerging economies (EMs), but large capital flows to, and asset price bubbles in, the EMs, these policies could be rated red. Global welfare would decrease with this policy.

If a policy has positive effects on both home and foreign countries, and therefore on global welfare, it would definitely be rated green. Conventional monetary policy would fall in this category, as it would raise output in the home economy, and create demand for imports from the foreign economy. A green rating for such policies would, however, assume that the stage of the financial and credit cycle in the home and foreign economies is such that financial stability risks from low interest rates are likely to be limited.

A policy could also be rated green if it acts as a booster shot and can jump-start a large economy, but creates temporary negative spillovers for foreign economies. Even if there

are temporary adverse spillovers on foreign countries, the policy, through its effect on home economy growth and demand for foreign goods, can eventually provide offsetting large positive spillovers to the rest of the world. Of course, it is important that the home economy, after receiving the booster shot and picking up growth, not follow policies (such as holding down its exchange rate) that minimize positive spillovers to other countries. A policy rated red on a static basis could thus be deemed green based on commitments over time. This also means that policies should be rated over the medium term rather than on the basis of one-shot static effects.

It is possible to visualize other policies that have large positive effects for the originating home country and sustained small negative effects for the rest of the world. Global welfare, crudely speaking, may go up with the policy, even though welfare outside the originating country goes down. While it is hard to rate such policies without going into specifics, these may correctly belong in the orange category – permissible for some time but not on a sustained basis. Even conventional monetary policies to raise growth in the home economy could fall in the orange category if countries are at a stage of financial cycle where low interest rates lead to significant financial stability risks in the home and foreign economies.

Clearly, foreign countries may have policy room to respond, and that should be taken into account. Perhaps the right way to measure spillovers to foreign countries is to measure their welfare without the policy under question and their welfare after the policy is implemented and a response initiated. So, for instance, a home country A at the zero interest lower bound may initiate Quantitative Easing (QE), and a foreign country B may respond by cutting interest rates to avoid capital inflows and exchange rate appreciation. The spillover effects of QE would be based on B's welfare if QE was not undertaken versus B's welfare after QE is initiated and it responds.

One could make the case that countries stuck in a rut for a long time and with few other options should be allowed policies that may have adverse spillovers. The use of unconventional monetary policies when the standard channels of monetary transmission are clogged is one such example – this may be especially useful if the policy is used over the short term to “jump start” the economy as discussed earlier. But what if the policy is sought to be employed over the medium term? Here “rut” is a relative term both over

time and across countries. If a stagnant rich country is allowed a free pass, should historically stagnant, and therefore poor, countries have a permanent pass to do whatever is in their best interests? It would be difficult to carve out exceptions to developed countries based on relative stagnation, or deviations from trend growth, without admitting a whole lot of other exceptions.

Along this vein, poorer countries typically have weaker institutions – for example, they have central banks with limited credibility, and government budgetary frameworks that are not constrained by rules and watchdogs. As a result, their ability to offset spillovers with policy responses is typically more limited. Furthermore, poorer citizens live closer to the minimum margin of sustainability, and poorer countries typically have weaker safety nets. So there is a case for weighting spillovers to poor countries more. However, it will be difficult to determine precisely what weight to place. Nevertheless, this facet could be kept in mind in deciding how to rate a policy when it is on the borderline.

Overall, whether policies are rated red, green, or orange would depend on a number of factors such as the duration of its effects; the stage of the financial and business cycle in the home and foreign countries; whether the policy action constitutes a booster shot to jump start the economy or gives only a mild boost and has to be employed for a sustained period; whether standard transmission channels are clogged to warrant the use of unconventional policies; whether the foreign country has room to adopt buffering policies; whether the spillovers impact poor countries which have weak institutions and less room to respond, etc.

Before concluding this section, let us address five common reactions to any suggestion of rules of the game:

- Central banks already take into account spillback effects of their policies, even if they have a domestic mandate. This is true, but the spillback effects (the partial consequences of their policies as they flow back to the source country, for example, through lower growth and thus lower imports of trading partners) may be only a fraction of the spillover effects. What matters for the world as a whole is that countries internalize spillover effects.

- Central banks already discuss their policies at various forums and strive to communicate and be transparent. Yes, but communication and transparency still is only tantamount to saying “It’s our policy, and your problem”.
- Taking spillover effects into account would make policy making, which is already hard, overly complicated and impossible to communicate. Yes, but countries already claim to take spillback effects into account, which involves estimating policy reaction functions of other countries. Is estimating spillover effects any more complicated?
- Rules will constrain only the systemically important central banks. Probably, though smaller countries will also have obligations. It is a reality that monetary policy consequences of policy are asymmetric and depend on a country’s importance. Often, this is a source of privilege and power. We are suggesting some commensurate obligations.
- Any rules will affect a central bank’s ability to deliver on its domestic mandate. True, but easier to have a mandate constrained by rules than changing the domestic mandate in a world where parochialism and nationalism are on the rise. Not doing anything will simply make the world more vulnerable to monetary nationalism.

How to Proceed?

The next crucial question is: who should assess spillovers, what would be an appropriate forum to discuss spillover effects from specific policies, and the ratings of these policies? How should we proceed?

A group of eminent academics

Given the constraints and political difficulties under which international organizations operate, it may be appropriate to start with a group of eminent academics with reasonable representation across the globe, and have them assess the spillovers, and grade policies.

International Meetings

Perhaps the next step would be an agreement to discuss policies and their international spillover effects at meetings such as those of the IMF Board, the IMFC, the BIS and the G-20. The discussion would be based on background papers, which would be commissioned from both traditional sources like the IMF, as well as non-traditional sources like the group of academics and EM central banks.

These papers would attempt to isolate the nature of spillovers as well as their magnitude, and attempt a preliminary classification of policy actions. Almost surely, there will be a lot of fuzziness about which color to attribute to a wide range of recent policies. But discussion can help participants understand both how the policies could be classified if we had better models and data, as well as how the models and data gathering can be improved. A shadow rating system should emerge from these discussions.

Country Responsibilities before Formal Rules

When policies are being discussed so as to get better understanding, no policies that affect the international monetary system should be off the table. Importantly, simply denoting a policy with the label “monetary” should not give it an automatic free pass because it falls under the central bank’s domestic mandate. What should be considered is neither the policymaker’s mandate, professed intent, or instruments, but actual channels of transmission and outcomes, including spillovers.

Policymakers will respond to the background papers by stating and explaining their policy actions, attempting to persuade the international community they fall in the green and orange zones.

International Conference

As the international community builds understanding on what constitutes sensible rules of the game, and how to label policies in that context, perhaps an international conference may be warranted to see how the community’s understanding of beneficial rules can be implemented. At that time, a discussion of how a central bank’s international responsibilities fit in with its domestic mandate may be warranted. While recognizing the political difficulty of altering any central bank’s mandate, the conference will have to

deliberate on how international responsibilities can be woven into existing mandates. It will have to decide whether a new international agreement along the lines of Bretton Woods is needed, or whether much can be accomplished by small changes in the Fund's Articles of Agreement, accompanied by corresponding changes in mandates of country authorities.

Role of the Fund

What role would the Fund play? The obligations of members and the authority of the Fund are derived from the Articles of Agreement. Section 1 of Article IV makes clear that IMF members are under general obligation "to collaborate with other members of the Fund to assure orderly exchange arrangements and to promote a stable system of exchange rates". The meaning of "general obligation" is unclear in the Articles but could be "relied upon as a basis for the Fund to call on its members to take specific actions or to refrain from taking specific actions" (IMF, 2006). Article IV further states that "In particular, each member shall ... (iii) avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain unfair competitive advantage over other members". Further, The Principles for the Guidance of Members' Exchange Rate Policies (originally 1977, amended in 2007) notes that "...Members should take into account in their intervention policies the interests of other members, including those in whose currency they intervene".

Although the Articles of Agreement or The Principles do not define "manipulation" in any detail, IMF (2007) narrows the scope of manipulation by noting that "manipulation of the exchange rate is only carried through policies that are targeted at – and actually affect – the level of exchange rate. Moreover, manipulation may cause the exchange rate to move or may prevent such movement."

In practice, it may be difficult to determine if a policy is targeted at attaining a level of exchange rate. Direct policy actions such as intervention in the foreign exchange market, or indirect policies such as monetary, fiscal, and trade policies or regulations of capital movements, regardless of the intent or purpose, can also affect the level of the exchange rate, and can be interpreted as "manipulation". The interpretation of the Articles of

Agreement could perhaps be broadened in scope to include a wider range of policies, which can primarily have effects on the exchange rates, and therefore beggar-thy-neighbor consequences.

While the Articles of Agreement include members' obligations in relation to exchange rate policies, global financial stability implications of country specific policies are not touched upon anywhere in the Articles. Members' obligations are considered only in relation to domestic growth objectives. For example, based on the Articles, a country with a weak economy can pursue loose monetary policies to stimulate output and employment. Despite the implications of such policies for financial stability in other countries, the country would argue that its policies are in line with Article IV, Section 1(i) which allows each member to "... direct its economic and financial policies toward the objective of fostering orderly economic growth with reasonable price stability ...". This suggests the Fund's Articles may need altering based on the discussion of the rules of the game.

Moreover, although broader surveillance by the Fund of its members' exchange rate policies, and other policies with significant financial sector spillovers, and perhaps public statements about such policies can have signaling effects, countries are not obligated to follow Fund advice unless in a program. The more pertinent question, therefore, might be what can the Fund really do once its Executive Board determines that a particular country is in violation of its obligations under the new rules of the game? Hopefully, the clear focus on the downsides of the particular country's actions for the rest of the world will lead to political and economic pressures from around the world that make the country cease and desist. The clearer the eventual rules of the game, the more likely this outcome.

To Sum Up

There is much that needs to be pinned down on the spill overs from domestic policies to the international monetary system. Given the undoubted importance of cross-border trade and capital flows, and the disruptions created by financial market volatility, it does seem wise to arrive at a more orderly arrangement than the current non-system.

Of course, even if we have agreement on broad principles of rating, we need to measure the effects of policies. Unfortunately, the state of the art here is more art than science. Models may reflect the policy biases (unconscious or otherwise) of those devising them, and are at a sufficiently early stage that it would be difficult to draw strong conclusions from them. Perhaps, therefore, more empirical analysis should be emphasized, and seen as an input to a dialogue, with the analysis being refined as we understand actual outcomes better.⁴

Therefore, with economic analysis of these issues at an early stage, it is unlikely we will get strong policy prescriptions soon, let alone international agreement on them, especially given that a number of country authorities like central banks have explicit domestic mandates. Moreover, with central banks worried that any discussion of their policies is a threat to their independence, and with populist politicians trying to bring central banks under their control, the natural inclination for central bankers is to postpone any discussion into the very distant future.

Yet it is precisely these forces of populist nationalism that increase the chances of international accidents, of misunderstandings on monetary policy leading to trade and investment wars. Better to initiate discussion. Such a discussion need not take place in an environment of finger pointing and defensiveness, but as an attempt to understand what can be reasonable, and not overly intrusive, rules of conduct.

As consensus builds on the rules of conduct, we can contemplate the next step of whether to codify them through international agreement, see how the Articles of multilateral watchdogs like the IMF will have to be altered, and how country authorities will interpret or alter domestic mandates to incorporate international responsibilities. It would be a shame if it took another Great Depression and a world war for the world to recognize the need for international monetary reform.

⁴ See, for example, Kamin, Steven B. (2016), “Cross Border Spillovers from Monetary Policy”, Presentation for the 2016 PBoC-FRB NY Joint Symposium. See https://rbi.org.in/SCRIPTS/BS_PressReleaseDisplay.aspx?prid=36589 for a working paper version of this article, which contains a brief review of the literature.