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Beliefs, Institutions, and Learning:

Towards A New Order in the New Global Economy?

The global financial crisis of 2007-2008 has been termed as the most synchronized recession since the Great Depression in the 1930's. [1] In its aftermath, we are observing a multitude of changes in the global economy and global governance. For one, the G-20 forum comprising industrialized and emerging economies has acquired added importance in promoting international cooperation as a way of dealing with the impact of the global financial crisis. The growing importance of the G-20 is arising from the strength of the emerging economies together with the disparate response of countries during the global recession. Specifically, we have observed short and sharp recessions for a group of prominent emerging economies such Brazil, Mexico, Russia, S. Korea, and Turkey whereas the G-7 countries have typically displayed U-shaped recessions, with countries such as the UK, the US, France and Japan experiencing large declines in output and a slow rebound. Furthermore, in countries such as Spain, Italy, Portugal, Hungary, and Greece suffering from asset price bubbles, large fiscal deficits and unsustainable levels of debt, output has been very slow to pick up (or, in the case of Greece, even shown persistent declines). [2]

The existence of such heterogeneity has been documented more generally by studies that seek to establish commonalities and similarities in the business cycle responses of individual countries.[3] Studies such as Kose, Otrok and Prasad (2012) and Altug, Tan and Gencer (2012) have documented the existence of "de-coupling" of business cycle activity across developed and emerging economies in an era of increased trade and financial integration since 1985. A recent analysis by Minenna and Reviglio (2015)

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[1] See Imbs (2010).
[2] See Altug (2013).
[3] See, for example, the studies by Male (2011), or Altug and Bildirici (2012) which include samples of developed and emerging economies, or Altug and Canova (2014) and or Canova and Schlaepfer (2015) who focus on the Mediterranean countries.)

points to continued heterogeneity in the European Union due to the disparate responses stemming from the non-Euro members of the EU.

These results suggest that we must examine modify our analyses to account for the nature of global economic activity. In some recent noteworthy contributions, Pascal Lamy has been calling for a new mindset or a new rethink of global governance that is more line with the fundamental shifts that are occurring. In Lamy (2012), he states that "determining the future of capitalism requires an effective global governance system in which multilateralism is central and a large amount of political energy is readily available." In Lamy (2010), he argues that "the advent on the national or international political scene of populations whose culture is not of Western origin" is raising issues about the very foundations of beliefs and institutions that underlie the current capitalist system. To surmount its current problems as he perceives them, the current capitalist system must not only undergo an intellectual rejuvenation or renovation, more importantly, "we then need to introduce the same change of attitude at the political level, when it comes to defining priorities and building a new balance of power."

We view these statements as a strong inducement or a call to inject an "institutionalist" perspective into current discussions of the global economy and global governance. Here we refer not only to formal institutions but also to the role of informal institutions such as norms, codes of conduct or other behavioural factors. Despite the growing recognition of the inadequacy of the existing global structures and ample evidence for the heterogeneity of mindsets and the observed responses, however, much of the police advice being offered to countries around the globe has been “institution-free.”

The seminal work of Douglass North has brought attention to the role of institutions in determining economic performance. In his framework, institutions are “the humanly devised constraints that shape human interaction.” Institutions reduce the uncertainty facing individuals and have an effect on economic performance by altering the costs of exchange and production. Institutions can be formal institutions, which encompass political and judicial rules, economic rules, and contracts or they can be informal, by which we mean customs, traditions, and codes of conduct. The political science literature has also devoted considerable attention to the role of norms and institutions. By contrast, much of the standard literature in business cycle analysis takes as its starting point simple models of individual optimization and economy-wide equilibrium. Yet as North (1990) argues, for standard choice models to be correct in their predictions (and for stronger assumptions regarding rationality of expectations), it must be the case that individuals reside in a stable equilibrium and have full knowledge about the alternatives open to them. But it is the fact of institutions that make life stable for individual agents. The greater is the uncertainty about the environment or the more complex the decision problem facing agents, the greater is the role for a regularized pattern of human interaction (by which we mean institutions) in dealing with them.

The notion that institutions provide the framework for a regularized form of interaction among different agents seems especially pertinent today, as we witness tremendous changes in the global economy. Doubtless one of these changes is the emergence of new countries such as China, India, Brazil and regions such as resurgent Asia that are expected to play an increasingly important role in global economic life. With them, the international structures that formed the basis for global governance in earlier periods are also being altered. The global financial crisis of 2007-2008 that erupted as a result of the subprime crisis in the US is also leading to a new perspective. As the developed countries have entered a period of low growth and weak performance, many emerging economies have continued to experience significant dynamism, suggesting that their role in international governance, global institutional structures and decision-making needs to be re-thought and re-configured.

The strains in the euro zone that erupted as a result of the sovereign debt crisis of 2012 constitute also another factor in the global shifts. As the likelihood of Grexit continues to occupy a prominent position in euro area policy discussions, questions about how the euro zone will evolve in the future is adding to the uncertainty in the international policy environment. Many prominent economists and economic historians have been arguing for policy prescriptions based on the lessons of the Great Depression or ones that make use of the implications of standard economic frameworks such as the structure of an optimal currency area. However, while fiscal adjustment is being prescribed as the cure for the Euro area problems, one of the most important lessons from previous eras of fixed exchange rate regimes (gold standard, interwar and Bretton Woods) is being ignored: by design, the burden of adjustment is biased towards deficit countries, with surplus countries not having to adjust to correct imbalances. Correcting such imbalances, however, is more than a simple policy prescription. It requires a combination of political will, societal consensus and an effective rule-based regime that can adapt to the new conditions.

Clearly, for many countries the transition to a new policy regime is turning out to be more difficult than expected. Our contention is that much recent policy advice ignores the underlying norms and shared beliefs prevalent in different societies, and fails to understand the process of institutional change that is required in the new era. The emerging economies are also subject to many underlying structural deficiencies and face significant policy challenges in an era of increased globalization and the massive increase in worldwide liquidity arising from the consecutive quantitative easing measures enacted by the developed countries. How they will react today appears to depend partly on their past experiences. As far as we are aware, however, the process by which collective learning occurs and helps to shape the institutional structure has not been examined from the viewpoint of understanding patterns of cyclical activity or the changing alignment of global activity. There is evidence that societies do indeed learn from past experiences to shape their current stances. Diamond and Rajan (2009) have commented that the lessons learned by emerging market economies in previous crises were instrumental in their avoiding some of the worst effects of the financial crisis of 2007-2008. However, there has been little modelling of such learning phenomena. Without understanding norms and institutions of different societies and how they change, we believe, policy advices may not be either accurate or effective.

In this contribution, we argue that what is needed to chart a future course for the global economy should involve modelling the joint evolution of institutions and economic outcomes through the collective learning of agents as well as studying beliefs, ideas, norm change, and institutions in an international comparative perspective. The role of institutions in affecting long-term economic outcomes has been studied by a variety of authors - see, for example, Knack and Keefer (1995), Hall and Jones (1999), Easterly and Levine (2003), Rodrik, Subramanian and Trebbi (2004), and others. The new institutionalist literature has argued that the impact of institutions on economic development stems from factors such as the rule of law, enforcement of property rights, or protection from the risk of expropriation. Acemoglu, Johnson and Robinson (2006) define good economic institutions as ones that "provide property rights for a broad cross-section of society". Yet one could make the case that there are many attributes of governance and the macroeconomic environment itself that influence how property rights are exercised by such a broad cross-section of society. Consider a high inflationary environment. Even in the presence of formal rules that guarantee property rights or protection from the risk of expropriation, investors will not have an incentive to make long-term investments whose payoffs will be subject to the inflation tax.

Perotti (1993), Alesina and Rodrik (1994), Persson and Tabellini (1994), and Cukierman et al (1992, 2002) have studied the impact of alternative monetary and fiscal institutions and arrangements on economic performance. However, these studies primarily relate their results to indicators of macroeconomic performance such as inflation, fiscal deficits, public debt, and so on, and do not examine directly the effect of such institutions on the nature of recurring fluctuations that market-based economies face. There has also been work undertaken from an economic history point of view that link cyclical fluctuations worldwide to monetary and capital account regimes. See, for example, Basu and Taylor (1999), or Bordo and Heibling (2003). However, these studies typically take the institutional structure and policy regimes as fixed in their analysis.

There have been some attempts to incorporate learning into standard macroeconomic frameworks. Milani (2007) incorporates adaptive learning in standard monetary dynamic stochastic general equilibrium (DSGE) models for generating persistence in aggregate output and inflation. Other papers such as Orphanides and Williams (2005), Sargent (1999) or Sargent, Williams, and Zha (2006) have used learning dynamics to try to account for specific historical episodes, which may not be amenable to analysis based on rational expectations alone. Altug, Demers, and Demers (2000) examine a dynamic model of political risk with regime shifts and learning, where agents face an exogenous probability of shifting to a regime with a less favourable distribution for productivity, demand, or costs and must make irreversible investment decisions as they learn about the fundamental features of the environment. In Altug, Demers, and Demers (2007), the regime shifts are determined according to the features of the electoral process at hand. While these models allow for an investigation of the impact of regime shifts and learning on the dynamics of inflation, investment or other macroeconomic quantities, they do not model the interaction of different types of agents in the learning process.

What is needed is a discussion more generally of how societies engage in collective learning. Mantzavinos, North and Shariq (2003) phrase the problem in terms of the external and internal environment of agents. From an external viewpoint, institutions are "the shared behavioural regularities or shared rules within a population." From an internal viewpoint, they are "the shared mental states or shared solutions to recurrent problems of social interaction." Thus, collective learning occurs as individuals in organizations acquire shared mental models. But institutions themselves are the anchoring in the minds of individuals of shared solutions to recurrent social problems. Collective learning may also happen in the form of channelled learning where agents (or governments) learn from the experiences of their socio-cultural peers and take them as models (Simmons and Elkins, 2004) or in the form of norm internalization where agents are socialized into a certain culture and behave in a certain way because they think it is the appropriate thing to do (Koh, 1997; Finnemore and Sikkink, 1998; March and Olsen, 1998).While these processes of collective learning contribute to the internalization, hence, increasing impact of already existing norms on behaviour, they may also lead to the creation of new norms making the old ones obsolete. Examining how norm change occurs, therefore, is an important task besides examining how norms generate stable outcomes (Finnemore and Sikkink, 1998).

The literature on global games presents an alternative approach to understanding the role of learning in determining equilibrium outcomes. Carlsson and van Damme (1993) present a class of games called global games which are obtained by perturbing the agents' payoff functions so that the actual game to be played is obtained as a realization from a particular subclass of games. There is an economic fundamental summarized by a variable, and players observe this fundamental with a small amount of error. Players have to choose actions which are part of a consistent plan for all possible realizations of the economic fundamental that is imperfectly observed. It turns out that, when the observation error is small, and the actual game selected has two strict Nash equilibria, agents may coordinate on the risk-dominant equilibrium as opposed to the payoff dominant equilibrium, where the risk-dominant equilibrium is defined as the one which is associated with the largest product of losses from deviation to the players. The literature on global games presents an alternative approach to understanding the role of coordination and learning in determining equilibrium outcomes. Global games have been used to model economic phenomena like bank runs, investors' overreaction to announcements made by central banks, and regime change (Morris and Shin, 1998; Rochet and Vives, 2004; Corsetti, Guimares, and Roubini, 2005; Atkeson, 2000; Angeletos, Hellwig, and Pavan, 2007).

We argue that we need to change the focus of attention from explaining crises or extreme events based on macroeconomic fundamentals to understanding the determinants of the diverse paths of economic behaviour observed during "normal" times. Yet even defining what "normal" times constitutes for different societies suggests a role of norms, codes of conduct, and shared mental states in determining observed outcomes. Thus, to guide the policy debate on such difficult and long-term problems as the future of the euro zone, the possibilities for financial sector reform, or the changing alignment of economic power globally, we argue that an alternative approach is needed which allows for an elucidation of how changes in institutions or more concretely, the changes in the shared solutions to recurrent problems, translate into policies which determine actual economic outcomes. The approach proposed here argues that observed policy choices reflect the underlying institutional structure, which itself arises from the experience of previous crises and past cyclical dynamics. Hence, analysing the impact of institutions and institutional evolution and norm change will provide a new perspective on economic policy-making which is lacking from comparisons of historical episodes or the prescriptions of simple economic frameworks.

In what follows, we present three "puzzles" which our approach has the potential to account for and to offer an alternative approach for generating the appropriate policy responses.

Puzzle 1: The Euro area recovery and "fear" of inflation

In the context of the euro area strategy for recovery from the 2008 global financial crisis, much has been made of the apparent inability of European policymakers up until very recently to engage in the types of quantitative easing programs implemented by the US and others. Yet a collective learning approach recognizes the role of hyperinflationary experiences in various European countries such as Germany in shaping the collective consciousness of its citizens regarding the nature of monetary institutions. This collective consciousness has led to the emergence of a monetary institution in the euro area – the European Central Bank – which has been almost exclusively devoted to the maintenance of price stability and that, until very recently has been almost rigid in not deviating from this objective even during a time of severe crisis. This is an important and striking example of the role of norms and beliefs which evolve through collective learning and how and why they may make what initially appear as suboptimal choices.

Puzzle 2: North - South beliefs in the EU

The Greek debt crisis continues to occupy the policy discussion, and the impact of a potential Grexit on other highly indebted countries such as Spain, Portugal, and even Italy is uncertain. Many commentators have argued that in addition to substantive differences on the macroeconomic issues, there is a problem of misperception among the different parties. Indeed, Haliassos (2011) has argued that the inability of countries in the "northern core" and "southern periphery" of the European Union to reach a common solution regarding the resolution of the debt and fiscal crises in countries such as Portugal, Italy, Greece, and Spain may stem from misperceptions among citizens of the each country or country grouping regarding the characteristics of the other. Thus, countries in the northern core such as Germany may perceive citizens of their southern EU member countries as "unwilling to save, work hard, reform, and ultimately get on a growth path" while those in the south may also be unwilling to face perceptions about themselves or their states to correct them. He argues that the citizens of the troubled EU states were actually maintaining a substantial wealth buffer comprised mainly of widespread ownership of real estate and limited mortgage indebtedness of older households. He notes ironically that the break-up of the euro zone may stem from common misperceptions among different agents as opposed to any fundamental macroeconomic incompatibility among the different states. This argument shows the significance of beliefs of agents about each other and about each other's beliefs and how they play a very important role in policy decisions, and the formation and evolution of institutions.

Puzzle 3: "Excessive" reserve accumulation in the BRIC's

Many commentators have argued that emerging economies have accumulated national reserve stocks that appear to be far greater than warranted by standard macroeconomic policy-making criteria (see Rodrik, 2006). However, an alternative way of viewing such a phenomenon is in terms of a game-theoretic equilibrium with learning and lack of common knowledge about different agents' beliefs. In a game involving emerging economy central banks and participants of financial markets, it can be shown that in the absence of common knowledge among the players about potential payoffs, the players may coordinate on the equilibrium that may be worse off for all.

Currently, the global environment is characterized by massive forms of uncertainty that point to the role of institutions for enabling agents to conduct a regularized pattern of interaction and for planning for future contingencies. Despite their strong growth in the aftermath of global economic crisis, the emerging economies themselves are facing the consequences of the Federal Reserve interest rate hike in the face of an improved economic outlook for the US economy. Combined with a slowdown in their economies, this is leading to exchange rate volatility and the potential reversal of capital flows to emerging economies. With increased globalization, the future of both emerging and developed economies will depend on their mutual reactions and the institutional changes that these beget to the current crisis and beyond. As a monograph issued by an influential EU policy group shows, the perceptions that different countries have of each other appear to be playing an important role in determining their future strategies (see Lisbonne-de-Vergeron ,2012). Interestingly, we are also observing the evolution of new institutions such as the Asian Infrastructure Investment Bank (AIIB), the BRICS' New Development Bank (NDB) and other bilateral and multilateral initiatives that seek to meet the diverse investment and financial needs of the emerging economies and to add to the existing institutional environment represented by such organizations such as the IMF or the World Bank.

These developments point to the need to develop analytical frameworks that allow for societal norms and beliefs to affect the nature of formal institutions and to help us understand the types of policies that are likely to emerge in environments characterized by lack of common knowledge and differences in the mindsets of the newly emerging economies. After noting the challenges that have arisen in the areas of "macroeconomics, health, environment, human rights, social standards, trade, ... the financial activities sector, where the recent crisis revealed a big hole in international regulations in what was undoubtedly the most globalized sector" as well in "the sectors that have been left aside, such as taxation, energy or migrations", Pascal Lamy (2010) states that the challenge facing players in the global arena in all is "to create global public goods, capable of harnessing the expansion of markets so that their efficiency can be enhanced, while making them subject to regulations designed to prevent excesses." He also points to the need "to establish a collective framework of values that are currently lacking in the area of justice, fairness and profit sharing." In contrast to many of the policy prescriptions that have been emerging from standard economic analysis, these comments point to the importance of guiding policy in the global economy by understanding the evolution of beliefs and institutions under changing conditions. We believe that the Think Tank 20 network being conducted under the auspices of the G-20 will provide an invaluable forum to air the different mindsets of an increasingly important group of global players and to shape new policy responses that recognize such differences.

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