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The Roles of Ideology, Institutions, Politics, and Economic Knowledge in Forecasting Macroeconomic Developments: Lessons from the Crisis[1]

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Abstract

This article discusses the importance of ideology, institutions, politics, and economic knowledge for forecasting economic policies and their impact on macroeconomic developments. Following a general discussion of those factors, the article illustrates their forecasting usefulness by drawing on experiences from the global financial crisis. Specific issues include the roles of those factors in the pre-crisis bubble buildup, in shaping aggregate policy responses in the USA and Europe and in shaping international coordination regarding long-term regulatory reform and preservation of free trade. A final illustration includes the role of policymaking institutions in guiding public expectations. (JEL codes: E6, E5, H, P5)

Keywords: Macroeconomics, financial institutions, monetary policy, foreign exchange, government policy and regulation.

1 Introduction

Macroeconomic forecasting normally takes policy responses and the impact of politics on policy choices and on policymaking institutions as exogenous and focuses on forecasting exercises, in which forecasts are conditional on particular policies. The dramatic differences in policy responses and in economic performance during the first year following the respective outbreaks of the great depression (GD) and of the global financial crisis (GFC) illustrate that even ballpark forecasting of policy responses is quite important for forecasting economic developments. This introduction identifies general qualitative factors that shape policy responses. The rest of the article illustrates the effects of those factors (and their interactions) on policy choices and through them on macroeconomic developments prior to, during and in the aftermath of the GFC.

Four classes of, partially overlapping, factors affect policy choices: ideology, policymaking institutions, politics, and accepted economic knowledge at the time those choices are made. Ideology determines the broad long-term objectives to which policymakers of a nation aspire.

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Although, due to various constraints, those objectives are seldom fully achieved they usually constitute an important input into attempts at forecasting policy responses. For example, the belief in the allocative efficiency of private enterprise and in democracy are basic characterizing features of Western ideology. In contrast, the currently held belief in free enterprise subject to tight control by the ruling elites characterizes contemporaneous China.

Policies are implemented by means of policymaking institutions such as the legislative and executive branches of government and/or by appointed bureaucrats with appropriate expertise. In democratic countries, fiscal decisions are normally initiated by the executive subject to approval of appropriate majorities within the legislative branch of government. Monetary policy is nowadays determined mainly by central banks. Regulation of economic activity in various areas, including interalia that of the financial sector, is executed by various regulatory authorities. These bodies may also initiate long-term changes in the structure of regulation subject to ratification by the legislative branch of government.

In the world of a Benthamite social planner with a clearly specified objective function and no distributional leanings, policymakers would just maximize aggregate welfare and the role of politics might be small or even non-existent. But the world we live in is composed of different constituencies that possess different priorities and different preferences about the distribution of resources. In a democratic society, policy decisions are normally determined by the interaction of an appropriate majority subject to the constraints imposed by legislative rules and the organization of bureaucracies. Since different constituencies have different priorities, compromises are normally made injecting politics into the choice of macroeconomic policies.

Last but not least, policy choices are affected by the beliefs of decision makers and their advisors about the impacts of policy decisions on desired objectives. In modern economies with high levels of specialization and of financial intermediation, there is substantial uncertainty about the transmission mechanism between policy instruments and objectives. To attain their objectives subject to a reasonable degree of accuracy, policymaker, and/or their advisors, must rely on economic models that relate their policy decisions to final objectives. Such models are usually broadly based on accepted economic beliefs of the time. Since those models adjust over time in light of major unanticipated economic events and new research, forecasts of policy reactions to various developments better be conditioned, interalia, on existing economic knowledge.

The article illustrates the importance of the above factors and of their interactions for the generation of macroeconomic forecasts through the discussion of specific experiences drawn from the recent financial

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crisis. This is done by considering the roles of ideology, institutions, politics, and economic knowledge in shaping policy responses and through them economic developments in the following four junctures of the crisis. The process leading to the build-up of the crisis, the short-run monetary and fiscal policy responses, the long-term policy responses (many of which are still in process) in the areas of regulation and international coordination, and the role of quick and resolute government action in guiding expectations. A unifying theme of the article is that ideology, institutions politics, and economic knowledge played a non-negligible role in all those junctures. However, their relative importance varied across the different episodes.

Section 2 focuses on the contributions of ideology and of politics to the build-up process that led to the GFC. Section 3 discusses the impact of lessons learned from the GD and of institutions in shaping policy responses to the crisis in the USA, and in the Euro area. Section 4 discusses the impact of those factors and of politics on the likelihood of internationally coordinated responses to the crisis in two areas—preservation of free trade and long-term regulatory reform. A subsection here discusses a, politically induced, tradeoff between quick short-run containment of a crisis and long-term regulatory reform.

Section 5 discusses the importance of expectations for economic activity and highlights the role of policymaking institutions in guiding and coordinating expectations during times of high uncertainty. Following a brief methodological discussion the section illustrates the general idea by examining the impact of the process leading to the Troubled Asset Relief Program (TARP) legislation in the USA on the evolution of public expectations during September/October 2008.[2] This is followed by concluding remarks.

2 The roles of ideology and of politics in the generation of the subprime crisis

A confluence of factors combined to create the subprime crisis in the USA. Here, I focus only on those that are directly related to USA economic ideology, politics, institutions, and real-time professional economic beliefs.[3] Each of the following four subsections identifies the different roles

[2] The TARP legislation was initiated immediately following the downfall of Lehman Brothers on 15 September 2009 and was finally approved by both houses of Congress on 3 October 2009.

[3] ‘Real-time professional beliefs’ refer mainly to the view that in the face of recessions induced by shocks to the financial system expansionary fiscal and monetary policies should be deployed. Although there may be disagreements about the quantitative

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of ideology, institutions, politics, and economic knowledge in the process leading towards the subprime crisis.

2.1 Economic ideology

Although it is very much a mixed economy, the predominant economic philosophy in the USA is that private markets should be allowed to operate freely whenever possible. Most likely, this philosophy underlies the absence of serious attempts by legislators to extend the regulation and supervision of financial institutions to the shadow banking system that grew by leaps and bounds during the build-up of the subprime bubble. This tendency was nurtured and reinforced by the economic clout of major financial institutions that lobbied against such legislation as well as by the decentralized nature of US regulatory institutions. Relatedly, it is likely that the norm of profit maximization provided legitimacy to the quick profit frenzy that pervaded mortgage originators, financial institutions, securitizers, and rating agencies.

The view that the role of government in the economy should be limited to the bear necessary essentials has been a traditional aspect of US economic philosophy since colonial times. It is rooted in the norms of freedom and private enterprise that pervaded the spirit of early settlers in North America. Although financial crises, major wars, and depressions eroded strict adherence to those norms, to the chagrin of libertarians like Higgs (1987, 2007), this spirit lurks behind major policy decisions during the previous century and animates current policy debates. Thus, the basic structure of the Federal Reserve System (Fed), established by Congress at the end of 1913, was the result of a compromise between centralization and decentralization of power. This Wilsonian compromise was achieved by splitting authority between a politically appointed Board in Washington and regional banks in principal centers, run by bankers, with no clear division of authority between the two (Meltzer 2003, ch. 3).

One conflict of interest brought to the surface by the GFC is that rating agencies, paid by securitizers, had an incentive to embellish the prospects of the repackaged financial assets they were rating. Interestingly, a similar type of conflict that involved manipulation of information through collusion between the research and marketing departments of investment banks at the expense of the general public, emerged already in the mid-1990s and was finally settled in 2003. Following lenghty investigations and litigation by the Securities and Exchange Commission (SEC) and the NY Attorney General, 10 of the USA top investment firms have settled enforcement actions involving conflict of interest between research and investment

effectiveness of such policies the experience of the GD solidified a consensus in favuor of deploying such policies.

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banking.[4] The fact that such conflicts of interest continued in another guise for several years after the settlement is a reflection of the same free market ideology as well as of the political clout of financial institutions discussed later. One respectable view in the current controversy about long-term regulatory reform is that new government regulation should not be rushed and that sufficient room should be left for regulation via market incentive as well as for self regulation (Kashyap et al. 2009; Taylor 2009).

The free markets ideology is also partly at the root of the benign neglect for the large and persistent current account imbalances with China on the part of US policymakers. This neglect enabled Chinese authorities to realize their economic ideology of export-led growth and internal-forced savings more forcefully. Thus, the rather opposite ideologies of China and the USA created for some time a vigorous symbiotic relationship between those two countries. Prior to the onset of the crisis, Bernanke (2005) referred to this phenomenon as a 'global savings glut' implying that the USA current account deficits and credit expansion until 2006/7 were partly due to circumstances external to the USA.

2.2 Politics and institutions

Many low-income people in the USA do not own a home and their access to mortgage finance is either limited or relatively expensive. To help those people acquire their own homes, some Democratic representatives proposed the extension of subsidies to such people but this was opposed, mainly by Republican legislators, and the proposal was abandoned. As a compromise Democratic legislators pressured government-sponsored institutions (GSE) such as Fannie Mae and Freddi Mac to extend mortgages to such people at rates that were lower than market rates for such risks. This led to a deterioration in the credit risk quality of the GSE mortgage portfolio, which accelerated their downfall and ultimately necessitated their bailout in Fall 2008.

The structure of regulatory institutions in most Western economies does not reward regulators for taking steps that ultimately prevent a crisis from materializing. As a matter of fact, since such steps are often unpopular, they may be criticized at the time by politicians and the general public. When those policies are subsequently successful in averting a crisis, regulators may be criticized again on the ground that, since there was no crisis, the previously unpopular steps were unnecessary.[5] Although it is deeply rooted in the democratic tradition of Western economies, this generates a

[4] Further details about the settlement appear in subsection 2.5 of Cukierman (2010a, in press).
[5] Aizenman (2009) analyses the implication of this dilemma for regulatory reform.

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structure of incentives that biases regulators' actions towards excessive leniency. This dilemma of socially minded regulators is reinforced by the fact that impending crises are hard to predict exante. Furthermore, when they do possess some advance warning about a crisis, regulators are often prohibited from revealing it to the public in order to mobilize support for precautionary measures.[6]

2.3 Real-time economic and financial professional beliefs

Recent evidence on the reaction function of the Fed supports the view that, under Greenspan, the Fed's policy was consistent with dominant recession avoidance preferences (Cukierman and Muscatelli 2008). Recession avoidance preferences imply that the Fed reduces the interest rate more vigorously and swiftly to pre-empt a recession than it raises it in face of an expected expansion in order to tame inflation. Relatively to symmetric objective functions, this creates a bias toward low interest rates. Taylor (2009) and others have argued that excessively low interest rates have contributed to the build-up of the subprime bubble in the USA. The following two economic beliefs provided some professional respectability for this low interest rate policy. The first is related to the view that, due to the 'great moderation' that characterized most of Greenspan's chairmanship, the Fed was freer to pursue the stabilization of the real economy. The second relies on the view, held prior to the crisis, that the Fed should not attempt to exante offset an expansion fed by, what appears to be, a financial bubble unless it endangers attainments of the inflation target (Evans-Pritchard 2009).

An analogous phenomenon probably occured with real-time beliefs regarding the capabilities of modern, micro-based, financial methods in guiding financial investments. The mathematical rigour of such models led decision makers at financial institutions to excessively rely on them without paying sufficient attention to the more distant aggregate-macro risks.

3 Interactions between professional beliefs, ideology, politics, and institutions in shaping policy responses

Lehman's collapse, on 15 September 2008, was followed within a few days by a gigantic expansion of monetary policy and within two and a half weeks by the $700 billion TARP initially designed to absorb 'toxic' assets on banks' balance sheets. Prior to, and immediately following, Lehman's

[6] Appointment of competent and ethical regulators with sufficient degrees of independence may mitigate the dilemma.

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demise, some economists and professional forecasters were producing rather gloomy forecasts about both the depth and persistence of the (anticipated at the time) depression. Although the crisis did produce the worst recession since the GD, economic developments over the subsequent 20 months turned out to be more benign than what many had anticipated.

It is likely that, had reasonable forecasts of actual policy responses been available in mid-September, real-time economic forecasts would have been less pessimistic and, therefore, more accurate. However, very few foresaw the swiftly upcoming huge monetary expansion mainly because expansions of this order of magnitude had never been observed before. In addition, during the 2 weeks following Lehman's collapse there was a good deal of uncertainty about the magnitude, timing, and type of fiscal package that Congress was going to ultimately approve.[7] Those observations dramatically illustrate the importance of conditioning macroeconomic forecasts on accurate forecasts of policy responses. In this spirit, the main issue in this section is how well could have actual policy responses been predicted at the time given professional economic beliefs and the long-term objectives, ideologies, and political environments of policymakers.

3.1 The impact of the GD in shaping policy responses to the crisis

There is little doubt that the vigorous responses of both monetary and fiscal policies to the GFC, particularly in the USA, are rooted in the experiences of the GD and in the numerous academic papers and books written following this experience. Although not all academic economists suscribe to all the policy prescriptions of Keynesian economics, some broad principles are widely accepted in Western economies. In particular, aggregate policy is guided by the view that government and the central bank should respond with expansionary fiscal and monetary policy when systemic financial stability is endangered to an extent that puts the orderly flow of credit to the real economy at risk. Since the flow of credit is a major determinant of aggregate demand, and through it of economic activity and employment, this view is ultimately motivated by the objective of avoiding serious recessions and/or persistent depressions like that of the 1930s.

3.1.1 *Monetary policy*

Several academic publications centered on the experience of the GD played a particularly important role in shaping the response of the Fed

[7] But 2 months later, in November 2008, the orders of magnitude of both the fiscal and monetary expansions had largely been internalized and economists' attention shifted towards a debate on the magnitudes of fiscal multipliers (Barro and Redlick 2009; Romer and Bernstein 2009).

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to the GFC. One is the book by Friedman and Schwartz (1963) which argues convincingly that restrictive monetary policy by the Fed was largely responsible for widespread banking failures during the first part of the 1930s. The other, exactly 20 years later, is Bernanke's (1983) *American Economic Review* paper which, building on the work of Friedman and Schwartz (1963), argues that the destruction of financial records and information about idiosyncratic credit risks of individual borrowers due to widespread bank failures limited the flow of credit to the real economy and substantially extended the persistence of the GD.[8] As a matter of fact it is not unlikely that the close knowledge of the Fed's chairman with those circumstances had an impact on the magnitude and swiftness of the monetary policy response following the panic triggered by the downfall of Lehman brothers in September 2009. Be that as it may there is little doubt that conventional wisdom about the lessons of the GD has been strongly internalized by monetary authorities in the USA, the Euro area and to a lesser degree by emerging market economies. Central bank rates all over the world came down sharply, practically reaching the zero bound in the USA and central bank credit to the financial, real and government sectors rose to levels seldom observed.[9]

3.1.2 *Fiscal policy*

World fiscal policies were also substantially expanded. In the USA, this took the form of two huge expansionary fiscal packages. The TARP was legislated after a 2 weeks debate by Congress on 3 October 2008 under Bush. It empowered the Treasury Department to spend up to $700 billion to clean banks from 'toxic assets' and by recapitalizing them via equity positions in the USA banking system. This was followed under Obama by the February 2009 American Recovery and Reinvestment Act (ARRA) that apropriated a $787 billion fiscal stimulus package for the rest of the economy. Interestingly the package passed under the Bush administration was implicitly directed at the partial nationalization of the banking system, while the second package was aimed mainly at the stimulation of the real economy and of state governments finances.

A mixture of economic and political considerations shaped this order of package objectives. The first package was an emergency reaction to the

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[8] Cole and Ohanian (2009) fault the National Industrial Recovery Act (NIRA), which tossed aside the nation's anti-trust acts, for the persistence of the GD. NIRA permitted industries to collusively raise prices provided that they shared their newfound monopoly rents with workers. Cole and Ohanian (2009) argue that, by raising wages well above underlying productivity growth, NIRA retarded the return of the economy to normal. A fuller discussion of the similarities and differences in policy responses between the GFC and the GD appears in Cukierman (2010b).

[9] Between August 2008 and January 2009 the Fed's balance sheet increased by over 250%.

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drying out of the interbank and other credit markets in the aftermath of the panic that swept those markets after the demise of Lehman Brothers. This was reinforced by the traditional support of a Republican administration for the financial sector. In contrast, the second package under Obama's Democratic administration included federal tax cuts, expansion of unemployment benefits and other social welfare provisions, as well as domestic spending on education, health care, and infrastructure, including the energy sector. The structure of the second package was influenced by the rising rate of unemployment as well as by the traditional leaning of democratic Congresses and administrations towards more active government involvement in the economy. Nonetheless, due to the free market thinking underlying USA liberal ideology, both administrations and Congresses spent a lot of effort to avoid a wholesale nationalization of the banking system as well as to minimize the visibility of the partial nationalization that was actually implemented.

3.2 The genesis of TARP legislation

The two and a half weeks that elapsed between the fall of Lehman Brothers and the Congressional approval of TARP on 3 October 2008 provide a unique opportunity to observe the reaction of policymakers to circumstances that require taking major decisions under stress. Such situations leave little time for evaluation of information, debate and analysis. At the time policymakers were caught between a rock and a hard place. As a result the Emergency Economic Stabilization Act (EESA) of 2008 that created TARP was passed in an atmosphere of crisis—if not panic. On 8 September 2008 government nationalized the GSI (composed of Fannie Mae and Freddie Mac—GSE in the sequel) and a day after Lehman's demise American International Group (AIG) had to be bailed out. On one hand, policymakers needed to act quickly and resolutely to avoid a broadly based financial panic. On the other, they were reluctant to commit large amounts of taxpayers money without adequate scrutiny and sufficient assurances that, at least over the long-term, taxpayers will not be left holding the short end of the stick.

Three policymaking institutions were involved in the process that led to the creation of EESA—the Federal Reserve, the Treasury, and Congress. Avoidance of a full-scale financial panic that would seriously cripple the USA financial system required substantial injections of public money. The Fed and the Treasury had already used some of their respective authorities to bailout a number of financial institutions over the first half of 2008. But, when the problems at Lehman and AIG surfaced on top of those experienced by the GSE, both the Fed and the Treasury felt that they could not continue to disburse the larger amounts of funds needed to

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maintain the stability of the financial system without Congressional approval. The approval process started with a three page long proposal summarized in a letter from Secretary of the Treasury, Paulson, to Congress. The proposal gave broad discretion to the Treaury and rested on three principles: simplicity, quick and overwhelming actions, and explicit endorseement by Congress (Swagel 2009, p. 32).

Initially, the $700 billion requested were meant to be spent only on buying Mortgage-Backed Securities and other 'toxic' or 'legacy' assets. But the mandate was quickly broadened to allow government to take equity positions in banks. The motivation for this change was to allow government to participate in the profits of banks if and when the economy turned around. Congress insisted on a tighter oversight mechanism, substantially broadened the range of objectives to be achieved by the program and asked for ceilings on the renumeration of top executives at financial institutions that would participate in the program.[10]

Paulson had decided not to rescue Lehman partly because of ealier critisisms that previous bailouts (like that of Bear Sterns) create moral hazard problems. Although many legislators were painfully aware of this problematic aspect of bailouts, the financial fallout triggered by Lehman's collapse in conjunction with apocalyptic desciptions of the situation by Bernanke and Paulson induced Congress to finally approve the somewhat modified program after only 2 weeks of deliberations. Samples (2010) argues that, by enlarging the list of objectives to about a dozen, Congress lost control over TARP largely leaving it to executive discretion. He further claims that Congress delegated much of the responsibility over TARP because its members did not want to make difficult decisions in an election year. But besides such short-term political considerations substantial delegation of authority by Congress may not necessarily be unreasonable in view of the need to move quickly, the information advantages of the Fed and of Treasury and the enormity of the task at hand.

What can be learned from the dramatic events that culminated in the TARP legislation? I believe two broad conclusion are warranted. First, extreme systemic events require the cooperation of several branches of public policymaking bodies. In spite of vocal and often highly publicized differences, the Treasury, the Fed, and Congress managed to work out a reasonable degree of coordination under stress. Second, their behaviour and the final legislation are consistent with the view that the heads of all three institutions consider the preservation of normalcy and functionality in the financial system to be a first priority of US public policy.

[10] Among the additional objectives were subsidies to delinquent homeowners aimed at reducing the volume of foreclosures.

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3.3 Institutional origins of differences in policy responses to the GFC between Europe and the USA

Like the Fed, the European Central Bank (ECB) responded to the crisis by expanding its portfolio and by gradually decreasing the policy rate. However, the monetary stimulus was somewhat weaker both in terms of quantitative easing as well as in terms of the timing and magnitude of the reduction in the policy rate. Between summer 2007 and the beginning of 2009, the Fed's policy rate came down from a peak of 5.25% to the 0–0.25% range effectively hitting the zero lower bound and is likely to stay in this range for some time. In contrast, the ECB rate started to come down from a peak of 4.25% only a year later and reached a higher through of 1% several months after the Fed did.[11]

While some of this difference is due to the fact that the crisis hit Euro area economies with some lag in comparison with the US, the difference is also due to institutional differences between the ECB and the Fed. The ECB charter elevates the price stability objective above other objectives as was the case with the Bundesbank, while the Fed's charter assigns to it the dual objective of high employment and price stability. In addition, the US 1946 full employment act makes federal policymaking institutions responsible for maintaining a high level of employment. Although this difference in relative emphasis on price stability versus real economic activity does not appear to play a discernible role during tranquil times, it does make a difference during times of crisis. Thus, during the oil shocks of the 1970s German inflation came down earlier and was lower on average than that of the USA (Beyer et al. 2008).

Since fiscal policies in the Euro area are decentralized, the fiscal responses to the GFC varied with national economic developments, internal politics, and institutions. However, in line with Keynesian prescriptions, most countries reacted with expansionary fiscal policies.

4 The impact of politics and vested interests on international coordination and on long-term reforms

The speed with which adverse consequences of the financial crisis spread internationally in conjunction with memories of the GD-led governmental authorities of various countries to try to coordinate their policy responses. As a first step, the growing relative importance of emerging economies, including in particular the BRIC (Brazil, Russia, India and China) countries was acknowledged by expanding the G7 into a larger G20 forum.

[11] The Bank of England's policy rate hit a minimum of 0.5% at the beginning of 2009.

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Leaders of the G20 met a number of times since the crisis intensification in the Fall of 2009, made a number of joint declarations and formed several working groups. In addition to long-standing issues, the G20 attempted to develop commonly agreed principles directly aimed at dealing with the GFC, the most important of which concern the preservation of free trade and coordination of long-term regulatory reforms.

4.1 Preservation of free trade

The GD led most western countries to engage in beggar thy neighbour policies. In the mid-1930s, the US Congress passed the Smoot-Hawley Tariff Act that raised tariffs on over 20 000 imported goods to record levels. Other countries retaliated by imposing restrictions on imports and by engaging in competitive devaluations. This led to a serious contraction of international trade and world growth. Being alert to the international costs of such adverse developments, the leaders of the G20 countries repeatedly pledged their commitment to the maintenance of free trade. At the conclusion of its London summit, the G20 issued the following statement (G20 2009b): '*Promote global trade and investment and reject protectionism, to underpin prosperity*'. This pledge was reiterated at the Fall 2009 Pittsburg meeting.

Although there is no visible mechanism to enforce this pledge and infringements on free trade can be found in several countries, it appears that the lessons of the GD and the coordination efforts of the G20 are likely to deter trade wars on a scale anywhere similar to that experienced during the GD.

4.2 Global reform of financial regulation

Although a number of factors combined to create the bubble that preceded the GFC, there is widespread agreement that two main factors are responsible for the emergence of the US subprime bubble: fractionalized and/or incomplete regulation of financial institutions and insufficient enforcement of existing regulation.[12] At its November 2008 summit in Washington, the G20 issued a detailed action plan for reform of global regulatory systems (G20 2008a) designed to increase, interalia, transparency, accountability, sound regulation, and to promote international cooperation in the regulation and supervision of world financial institutions. This was followed up, at the April 2009 London meeting, by the creation of the Financial Stability Board and the publication of a progress report on each of the 47 actions set out in the Washington plan (G20 2009c). At the September 2009 Pittsburgh summit, the G20 reiterated their

[12] Detailed aspects of those failures are discussed in Cukierman (2010a).

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commitment to overhaul financial regulation with new capital requirements, curbs on reckless borrowing, minimum liquidity requirements, and limits on executive compensation for major financial institutions, especially those deemed to be 'too big to fail'.

Due to globalization the reach of markets transcends that of nation states. Consequently, regulatory reform in one country leads to the creation of tax havens, regulatory arbitrage across borders and a race to the bottom in regulation. From this point of view, a world-wide unified regulatory system would be a first best. The main practical impediment to such a solution is political and institutional. Nation states are unlikely to abrogate the privilege to regulate financial activity in their respective jurisdictions and even within the same country different regulators often argue about required regulatory reforms.[13] Also, experience shows that a national budget is the most likely source for financing a bailout when the need arises. It is, therefore, natural that national governments would retain the prerogative to regulate. Furthermore, due to idiosyncrasies in national financial systems the optimal modalities of regulation are likely to differ across countries.

Consequently, global unification of regulation and cross-border minimization of regulatory arbitrage are limited by a mixture of national politics and structural cross-country differences in financial systems. These fundamental constraint underlay the G20 consensual attempts to enhance the efficiency and uniformity of world regulatory systems through international cooperation rather than by full unification of regulation. Although progress in this area is likely to be slow it is likely that in the longer run there will be more harmonization of national regulatory systems than in the past. The main force driving this process is recognition by the leaders of major powers that efficient and harmonized regulation is a public good for the world.

4.3 Vested interests and long-term regulatory reform in the USA

At the peak of and shortly after the outbreak of the GFC there was an urge to seriously consider an overhaul of financial regulation and supervision. But, now that the brunt of the financial crisis appears to be behind us there is a danger that various vested interests will manage to prevent some of the required reforms in financial regulation and supervision.

Due to the substantial political influence of the financial sector on decision makers in Congress and in the administration this risk is particularly strong in the USA. For historical reasons, the US financial

[13] The ongoing debate among different US regulatory agencies about Obama's proposed reforms is one example.

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regulatory system is highly fragmented and incomplete. Although this state of affairs increases the operating efficiency of financial institutions at the micro level it also makes it easier for them to ignore the negative externalities they impose on society. The unexpectedly quick return of confidence in financial markets is obviously desirable. However, an undesirable by-product is that it weakens the resolve of the US political establishment to implement serious long-term reform, including in particular, more unification of financial regulation. This tendency is reinforced by objective difficulties in deciding about the specifics of some reforms that (possibly along with turf struggles) lead to disagreements among existing regulators about the specifics of such reforms. In the absence of an urgency atmosphere, this environment makes it easier for vested interests in the USA financial sector to water-down and/or retard desirable regulatory reforms.[14]

5 The role of policymaking institutions in the formation of public expectations

The importance of the public's expectations for actual economic activity cannot be overemphasized. Inflationary or deflationary expectations are major determinant of exante real rates and exante real wages. Those expected returns to factors affect investment, consumption and employment decisions, and through them the paths of economies. Pessimistic or optimistic expectations about the future growth prospects of the economy affect the behaviour of lenders, borrowers and stock markets, and feed back from them onto the real economy and its rate of growth. Rational expectations models accommodate this circular loop between expectations and actual behaviour by postulating model consistent expectations. As is well known this postulate amounts to assuming that individuals are aware of, fully believe in the particular economic model postulated, and use it to form their forecasts.

Although this methodology possesses the advantage of internal consistency and might produce reasonable descriptions of expectations formation in tranquil times, it is likely to be highly misleading in times of abrupt changes in economic environment or in policy stance. In such times, due to high uncertainty, expectations become more sensitive to new bits of information, their possible range increases and, in the absence of clear

[14] Reich (2009) argues convincingly that US banks buy, by means of substantial donations, a non-negligible degree of political clout with both Congress and the Administration.

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coordinating devices, their spread rises.[15] As Akerlof and Shiller (2009) have recently reminded us Keynes was well aware of the fact that, in the presence of high uncertainty, it is extremely difficult to determine how expectations are formed and consequently raised a question about how individuals make decisions in such cases. Keynes answer was that, under such circumstances, they '*can only be be taken as a result of animal spirits*' and a '*spontaneous urge to action*' rather than '*the outcome of a weighted average of quantititive benefits multiplied by quantitative probabilities*'.

In such times, the role of public authorities in guiding and coordinating expectations rises to paramount importance. Morris and Shin (2002) have shown that when the precision of private signals is low relatively to that of public signals, the impact of the latter on expectations is large. This happens, not only because of the direct impact of the ratio of variances on the weights of private and public signals in expectation formation but also, because each individual (being aware of the fact that all other individuals are exposed to the same public signal) take actions that compound the impact of the public signal on the economy. Consequently, in times of extreme uncertainty a clear and resolute commitment to an appropriate course of action on the part of public authorities has the potential to coordinate public expectations on, self-reinforcing relatively optimistic outcomes. In contrast, equivocation or the absence of strong public action may lead to a spiral of self-reinforcing pessimistic expectations. This observation is particularly relevant when, due to opaqueness about the valuation of financial institutions pessimistic, expectations on the part of financial institutions lead to substantial shrinkages in the volume of transactions on the interbank market, as has been the case during the last third of 2008.

The chronology of events in the aftermath of Lehman Brothers' downfall provides a pertinent illustration. The firm filed for Chapter 11 bankruptcy protection on 15 September. Almost immediately US Treasury Secretary, Henry Paulson, proposed the TARP to Congress igniting a public discussion in Congress about the merits and demerits of the program. On 22 and 23 September, Paulson and Fed Chairman, Ben Bernanke, delivered public speeches about the programme to Congress urging it to pass the proposed bill and describing the dangers of inaction.[16] Congress deliberated for another week at the end of which the House of Representatives rejected the bill on 29 September 2008. An amended

[15] Cukierman and Wachtel (1979) find that in times of increased variability of inflation the dispersion of inflationary expectations across individuals rises.

[16] Cochrane and Zingales (2009) argue that this testimony had a more important role in triggering pessimistic expectations than the actual filing for Chapter 11 protection by Lehman Brothers.

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TARP programme was finally approved by both houses of Congress on 3 October 2008. Within 1 or 2 days from the Chapter 11 filing the credit default swap (CDS) spread as measured by the Citi index rose from less than 150 basis points to over 250 but decreased back to about the original level a few days prior to Paulson and Bernanke's testimonies to Congress. Following their testimony the index zoomed up to a peak of 450 and then stabilized around 350 basis points. It rose again to almost the same peak on 29 September after rejection of the bill by the house and declined all the way back to 150 basis points over the week following the bill's approval on 3 October 2009 (data on the Citi CDS index is adapted from the figure in Cochrane and Zingales 2009).

Those gyrations in the CDS index are consistent with the following interpretation: upon filing for Chapter 11 the index increased for a day or two. However, when markets were informed that Congress is contemplating a bailout plan the index basically came down to its original level. Following Paulson and Bernanke's testimonies, which were quite candid about the seriousness of the situation, the index shot up and receded temporarily as bailout discussions in Congress proceeded. It zoomed towards the peak again upon rejection of the bill by Congress. Thus, as long as there was no clear commitment to a bailout, the index fluctuated within an elevated range supporting pessimism and the apprehensions of the financial community. But within a week of the bill's approval the index returned to its pre-15 September range supporting the claim that, once there was a clear signal of policymakers' intentions to prevent spreading of the crisis, pessimistic expectations receded limiting the further downward spiral that might have arisen in the absence of this public action. The longer term effects of the bill obviously depends on its actual implementation. However, the chronology of events between 15 September and 3 October shows that clear and resolute signals about public intentions in times of high uncertainty are capable of substantially affecting expectations within a short period of time.

The broad lesson from this discussion is that the stance of policy can have powerful impacts on expectations and through them on economic equilibrium. The broader implication is that forecasts of economic outcomes can be sharpened by conditioning them on adequate forecasts of policy responses. Practical policymakers are well aware of the influence their actions and pronoucements have on expectations. It is likely that the speed with which the 3 October 2008 financial bailout package was ratified by the US Congress was affected by policymakers' desire to quickly apply the brakes on the pessimistic expectations that took hold of the global financial sector in the aftermath of Lehman Brothers' demise. Inflation targeting that has become a preferred method of conducting monetary policy in tranquil times is also based on the idea that monetary policy

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can have substantial credibility impacts during periods of inflation stabilization (Cukierman 2000). Based on those impacts Woodford (2003, ch. 6) derives the remarkable result that monetary policy inertia is optimal when policymakers are able to pre-commit.

On the flip side internalization by policymakers of the fact that they possess the ability to influence expectations just by word of mouth may lead to an optimistic bias in their macroeconomic predictions. This characterizes official predictions in many countries and is well documented, interalia, by Blackley and DeBoer (1991) for the USA and by Strauch et al. (2004) for Europe in the fiscal area. Advance announcements of unexpectedly favourable results are beneficial when they are subsequently backed by suitable policy actions and actually realized since they push expectations and the economy towards more favourable, self-fulfilling equilibria early on. However, when subsequent developments are mixed, credibility is damaged eventually and policymakers' future ability to guide expectations is impaired.

6 Concluding thoughts

In the aftermath of the crisis, world policymakers and reformers are groping for institutional reforms that would minimize the likelihood of serious crises such as the GFC. An emerging consensus is that, since financial crises are normally preceded by economic expansions driven by excessive credit expansions and overoptimism, the 'bubbly' or 'exaggerated' part of such expansions should be controlled. Unfortunately, economic science does not yet possess a clear cut recipe for distinguishing between a bubble and a healthy expansion based on fundamentals. The conceptual difficulty originates in the observation that all expansions are driven by self-fulfilling expectations blurring the distinction between what is a bubble and what is not. Two important tasks facing future policy oriented research are: (i) reforming policymaking institutions in ways that would minimize the build-up of substantial bubbles; and (ii) development of early warning indicators for the possible emergence of bubbles.[17]

Those tasks are beyond the scope of this article. Instead the article highlights a number of institutional, political, and ideological factors that contribute to the build-up of bubbles and that may be used as inputs for further thinking about those issues. Among those are free

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[17] Borio and Drehmann (2009) propose a real-time indicator based on relative credit expansion.

markets ideology, powerful financial sectors, adverse interactions between frequent financial innovations and regulatory fragmentation, and regulatory incentive structures that do not credit regulators for the prevention of crises that do not ultimately materialize. Although free markets and the profit motive provide powerful incentives for entrepreneurship, hard work and creativity they also may lead to excessive booms and busts if not appropriately regimented. This is particularly true in the presence of large and politically powerful financial institutions that are too big to fail. Frequent financial innovation in conjunction with fragmented regulation were important factors in the build-up of the subprime bubble in the US. Finally, when reforming regulatory institutions, more thought should be devoted to finding ways to recognize and provide political support to regulators and central banks that contribute to prevention of excessive bubbles build-ups. Since a regulator often relies on confidential sources to obtain early signals of an impending crisis, he cannot present the entirety of his case to the public in real time.[18] A partial solution to this problem is the creation of sufficiently independent regulatory authorities stuffed by competent and honest appointees.

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[18] Nor is it socially optimal to reveal this information immediately (Cukierman 2009).

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