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The Roles of Ideology, Institutions, Politics and Economic Knowledge in Forecasting Macroeconomic Developments

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Preliminary

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

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introduction identifies general qualitative factors that shape policy responses. The rest of the paper illustrates the effects of those factors and their interactions on policy choices and through them on macroeconomic developments in particular instances.

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. 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 while 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 like 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 decisionmakers 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 conditionned, interalia, on existing economic knowledge.

The paper illustrates the importance of the factors above for economic developments and for the generation of macroeconomic forecasts by means of specific cases. Some of those draw on recent experiences from the global financial crisis, others on episodes from a more distant past and the rest are more general. Section 2 discusses the importance of differences in ideology, regime and other institutions between major (actual and potential) currency blocks on the future of the US $ as a key currency. The next two sections illustrate the importance of such factors in the context of the GFC. Section 3 focuses on the contributions of ideology and of politics in the buildup process that led to the GFC. Section 4 discusses the impact of lessons learned from the great depression and of institutions in shaping international policy responses to the crisis in the US, and in the Euro area. Section 5 discusses the impact of those factors and of politics on the likelihood of internationally coordinated responses to the crisis in the preservation of free trade and in long term regulatory reform. A subsection here discusses a, politically induced tradeoff, between quick short run containement of a crisis and long term regulatory reform.

Section 6 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 with an example drawn from the impact of the process leading to the TARP legislation in the US on the public's expectations.[1] Section 7 draws on the post WWII experience with transfers and taxes in the US to illustrate the importance of interactions between legislative institutions and politics for fiscal policy choices. The last section concludes.

2 The future of the US $ as a key currency

Following the huge US fiscal and monetary expansions triggered by the GFC since summer of 2008 various observers came to question the role of the $ as a key currency. The future of the $ as a key currency generally depends on a mixture of economic, political and cross country differences in ideology and regime type as well as on the evolution of economic thinking. By affecting policy choices in major economies of the world those factors affect economic developments and through them exchange rates and the choice of exchange rate regime. This section illustrates the importance of those factors for the future of the US $ as a key currency. Potential alternative candidates for the role of a key currency are the Chines Yuan, the Euro, the IMF Special Drawing Rights (SDR) and a world of several big currency blocks in which the share of each of those currencies in world trade and capital movement would be larger and the share of the $ would be lower in comparison to the present.

2.1 The Chinese Yuan

In view of the persistent current account deficit of the US with China, as well as the substantially higher rate of growth of the latter economy various commentator have raised the possibility that the Chinese Yuan will eventually replace the US $ as a key currency. This consideration is

[1] The TARP (Troubled Asset Relief Program) legislation was initiated immediately following the downfall of Lehman Brothers on September 15 2009 and was finally approved by both houses of Congress on October 3 2009.

renforced by the observation that the sizable difference in rates of growth between China and the US is most likely to persist over the next decade bringing Chinese GDP around 2020 to at least half of US GDP. However sheer size is only necessary but not sufficient for a currency to evolve into the role of a key currency. Other important factors are strong protection of private property, adequate law enforcemnent, broad, transparent and highly liquid capital markets, free capital mobility and a relatively stable currency. Excluding possibly the great inflation of the seventies and the recent huge fiscal and monetary reactions to the global financial crisis (GFC) the US possesses all those attributes since WWII. That, in spite of the crisis, the world financial community, including most central banks, still considers the US $ and US Treasury bills as safehavens in times of duress has been clearly demonstrated by the flight to safety in March 2009. Around that time the yield demanded on Treasury Bills (TB) dropped to historically low levels and the $ appreciated substantially reaching a peak of about 1.25 $ per one Euro.

Except for size, the promise of a relatively high rate of growth in the future and persistent current account surpluses China does not currently possess the attributes above. The rule of law and the protection of private property in China are easily bent by government, capital markets in Yuans are either nascent or non existent, there are serious restrictions on capital mobility and the Yuan is not convertible. Consequently, the key currency prospects of the Yuan depend on the likelihood that those institutions will undergo sufficient changes to overcome part or all of the incumbency advantage of the $. Whether this will be the case or not over, say, the next ten years crucially depends on decisions that are totally in the hands of the Chinese government. Hence, evaluation of the key currency prospects of the Remnibi must be conditionned on forecasts of the Chinese government behavior. This behavior depends, in turn, on the nature of the regime, the constraints imposed on it by existing institutions as well as the regime's priorities and its ideology.

Since the eighties Chinese authorities tolerated a gradual and sustained transformation of the Chinese economy into a market economy. But, contrary to the West, and the US in par-

ticular, the ideology of ruling Chinese elites is based on the view that individual behavior should be largely subordinated to the needs and requirements of the state and to its aggrandizement. There is no free press and information is managed mainly in order to facilitate the achievement of state objectives rather than to inform the public about objective facts. The Chinese regime remains authocratic, does not hesitate to infringe on private property rights when they conflict with state objectives and the financial system operates mainly through a network of centrally planned state banks aimed at boosting production levels rather than at the strict maximization of profits. Persistent overvaluation of the Yuan through pegging to the US $ and other devices maintain low wages and stimulate the savings which are then channelled to various production enhancing investments through the state banks. This state orchestrated export led growth has been largely responsible for the spectacular Chinese rate of growth as well as for its persistent current account surpluses.

From the vantage point of the Yuan becoming a key currency a central question is how likely it is that Chinese institutions will become sufficiently more oriented towards protection of private property (including financial assets) the rule of law, free capital mobility, full convertibility of the currency and financial flows that are guided mainly by private profit motives rather than by state directives. The answer is that, given existing Chinese institutions and norms, there are serious impediments to such developments over the foreseeable future (like the next decade) for several reasons. First, full convertibility of the Yuan imply that the state will have to give up an important instrument of export led growth. Second, upgrading the rule of law and the protection of private property as well as the privatization of the financial system and its liberalisation are at odds with retaining state controls over the structure and volume of production, as well as on income distribution. Under the (highly probable) presumption that it will remain authocratic the regime is quite unlikely to engage in such reforms.

On top of those impediments, China may not be seeking to replace the US $ with the Yuan. Instead it may be seeking (and possibly has been seeking for some years) to reduce the role

which any currency plays in influencing economic affairs, and replace it with trade agreements mostly in Asia. Craig (2009) argues that the main goal of Chinese traditional social elites is to remove the constraints imposed by privately controlled financial flows and the rule of law on the ability of those elites to control economic activity. The ideology underlying this approach is that the interests of ethnic communities, as determined by intuitive consensus amongst social elites and their subordinates, should dominate the interests of individuals. Rather than getting involved in the creation of a new monetary world order China-may prefer centered trade / tribute system in which 'tributaries' (who might be states, ethnic groups or even individual businesses or political leaders) paid nominal allegiance and gave largely symbolic gifts to China's elites, while the latter controlled that 'world' and ensured that China's people work hard for limited material reward, so that 'tributaries' gained real net benefits from the arrangement.[2]

2.2 The Euro

The Euro is the most actively traded currency after the US $ and its Euro denominated bond market approaches the depth and liquidity of dollar denominated bonds (Galtai and Wooldridge (2009)). Since its introduction in 1999, the Euro's share of global foreign exchange reserves has increased from 18.1 percent to 25.9 percent in 2009 (Carbaugh and Hedrick (2009). The Euro area possesses a combined GDP that is larger than that of the US. Protection of private property and the rule of law are substantial in absolute terms and obviously so in comparison to China. The constituent countries possess well developed financial systems, free capital mobility and the Euro is fully convertible. All countries in the Euro area are democracies and have free presses.

[2]Other aspects of this politico-economic structure are: 1. Primary reliance on power seeking rather than profit-seeking economic transactions within and amongst China and its 'tributaries' - though with profit-seeking enterprise allowed on the margins. 2. Seeking a current account surplus with the outside world by suppressing consumption, while being able to handle some current account deficits through the creation of financial institutions to which profit driven investments could be attracted by rigging associated industrial activities through cartels. 3. Achieving desired objecdtives by behind-the-scenes activities without much public discussion.

Although government's involvment in the economy in most of the constituent countries is larger than its share in the US the cultural roots and the broad economic ideas in the Euro area countrie are shared with those of the US.

In addition, due to the legacy of the Bundesbank the European Central Bank (ECB) is more conservative than the Fed and, other things the same, is more likely to deliver long run price stability than the Federal Reserve (Fed). During the last year both central banks have poured substantial amounts of liquidity into their respective economies but the Fed did it on a wider scale. Although part of this difference is due to the fact that the economic impact of the GFC was more devastating in the US than in the Euro area, it is likely that some part of the difference is due to the difference in conservativeness. The charter of the Fed assigns to it the dual objective of price stability and a high level of employment while the charter of the ECB elevates price stability above other objectives. The Euro is already widely used to settle international transactions in the Euro area and in adjoining countries.

Due to all this reasons the Euro appears, at first blush, as a serious contender to the \$. But there also are countevailing factors the most important of which is the \$ incumbency advantage ((Carbaugh and Hedrick (2009), Eichengreen (2009)). The fact that the \$ is already widely used in international transactions supports and nurtures the incentive of international traders and of central bankers to quote their prices in \$ and to maintain a large fraction of international reserves in \$. This is reinforced by the facts that: (i) US financial markets still enjoy advantages over those in the Euro area in terms of size, credit quality and liquidity, and (ii) some countries in the Euro area have weak fiscal positions. Also it is not clear that there is a majority among EMU members that would desire an expansion in the international role of the Euro. Due to decentralized national fiscal policies there is a fear that Eastern European nations in a queue for entry might use the potential reserve status of the Euro to evade fiscal discipline. Moreover, in case of serious threaths to the economy that requires swift and coordinated fiscal expansions, the centralization of fiscal policy in the US strenghens the credibility of the \$ in

comparison to that of the Euro.

2.3 Special Drawing Rights

In March 2009 Zhou Xiaochuan, a governor at the People's Bank of China (PBC), proposed a new international monetary system in which the Special Drawing Rights (SDR) would eventually replace the $ as the world's main reserve currency (Xiaochuan (2009)). The value of the SDR is defined as a basket of currencies that includes the US $, the Japanese yen, the UK pound and the Euro. They are reviewed every five years to reflect the relative importance of currencies in world's trade and financial systems. The rate of exchange between the SDR and the $ is calculated on the basis of exchange rates quoted each day at noon on the London market (further details appear in Carbaugh and Hedrick (2009)). To this day SDR denominated assets have been used only to settle transactions between central banks. In July 2009 the IMF approved a first issuance of SDR denominated bonds but, again, those bonds can be purchased and sold only by central banks.

The main advantage of the SDR concept is that, since it is based on several currencies rather than on one main key currency like the $ whose value is tied to the fortunes of a particular country, it moderates the impacts of exchange rate volatility. In view of the recent downward trend and increased volatility in the exchange rate of the dollar, the importance of this consideration rose during the last several of years and probably underlies governor's Xiaochuan proposal to eventually replace the $ with the SDR.

How likely is such a development? I believe this is unlikely to occur on a large scale for several interrelated economic and political reasons. To replace the dollar the SDR would have to overcome the incumbency advantage of the US $ which is not a trivial matter. Ignition of such a transition process requires the promotion of SDR's as an international currency in settlements of trade and financial transactions. Without strong coordination among the major members of

the IMF, like the G20, such a process cannot even be started since the IMF does not possess the political authority and legitimacy of major nation states.[3] Hence the answer depends to a large extent on how likely are major members of the IMF to actively promote the practical reforms needed to elevate the SDR's to the status of a key currency. This is discussed in the following subsection.

2.4 What is the most likely future scenario?

The world's incentive to seek alternative anchors to the US dollar critically depends on how successful will the US government be in rolling back the fiscal and monetary expansions triggered by the GFC. This depends, in turn, on how much will US authorities value the key currency status of the dollar in comparison to alternative domestic objectives like high employment and medical insurance reform. As the supplier of a key currency the US has enjoyed several important benefits the most important of which is that it can issue bonds denominated in its own currency at reasonable terms and have them absorbed in large quantities in private and institutional portofolios by the rest of the world.[4] The March 2009 "flight to safety" that reduced the interest cost of treasury bills (TB) and raised the value of the $ demonstrates that, in spite of the subprime crisis, dollar denominated TB are still considered as nearest to the "risk free asset" paradigm used in financial portofolio selection theory.

This perception is anchored on the breadth, liquidity and credibility of US institutions, strong protection of private property, a free markets ideology and, last but not least, a long record of nominal stability. Letting this record deteriorate may be quite costly in terms of the

[3] At its April 2009 the G20 pledged to treble IMF resources to 750 billion $ out of which 250 billions would be used to expand SDR's (G20(2009b)). Although large in absolute terms this amount is small by comparison to the world's demand for international currencies.

[4] It is well known that over sixty percent of world central bank reserves are held in dollars. Another benefit related to the key currency status is seignorage income on the issuance of $ bills. Since, at least sixty percent of $ bills are held outside of the US the bulk of this seignorage was extracted in the past from the rest of the world.

US government's ability to tap international bonds markets in the future. Recent remarks of Treasury secretary Geithner about the importance of a strong dollar reveal that the Obama administration is not blind to those risks. Mainly due to the crisis this record has not been tainted yet. The main question in this context is how will US authorities respond when nominal stability is threatened. In my view, although some policy error cannot be excluded, neither the Fed, nor the Treasury will tolerate the emergence of substantial risks to price stability for several reasons. First is the risk of reduced and more costly access to international bond markets. This is a serious cost, particularly when prospective deficits raise the importance of such access. Second, is the risk that excessive inflation will disrupt domestic financial markets as has been the case during and in the aftermath of the great inflation of the seventies. Those are serious costs for an economy with the widest and most liqud financial markets in the world and it is likely that US policymakers will not allow them to materialize on a serious scale. For similar reasons the US is unlikely to support measures designed to elevate the SDR to a reserve currency status.

The upshot is that due to its ideology and institutions US authorities are unlikely to tolerate an inflation that may endanger the stability of the US financial system. It is therefore unlikely that the dollar will be replaced worlwide by another main currency in the foreseeable future. But if policy mistakes by US policymakers lead to some inflation in the US the use of the $ in international transactions may be partially replaced by regional currency blocks like the Euro and a Yuan dominated currency in East Asia.

3 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 US. Here I focus only on those that are directly related to US economic ideology, politics, institutions and real time professional economic beliefs.[5]

3.1 Economic ideology

Although it is very much a mixed economy the predominant economic philosophy in the US 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 buildup 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 same 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 US 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 US current account deficits and credit expansion till 2006/7 were partly due to circumstances

[5] A fuller discussion appears, interalia, in Cukierman (2009a).

external to the US.

3.2 Politics and institutions

Many low income people with low incomes in the US 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 abandonned. As a compromise democratic legislators pressured Government Sponsored Instititions (GSE) like 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 portofolio 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 critisized at the time by politicians and the general public. When those policies are subsequently successful in averting a crisis, regulators may be critisized again on the ground that, since there was no crisis, the previous unpopular steps were unecessary. Although it is deeply rooted in the democratic tradition of Western economies this generates a structure of incentives that biases regulators' actions towards excessive leniency.

3.3 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 prempt a recession than it raises it in face of an expected expansion in order to tame inflation. Relatively to symmetric objective functions this creates bias towards low interest rates. Taylor (2009) and others have argued that excessively low interest rates have contributed to the buildup of the subprime bubble in the US. 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 rests on the view that the Fed should not interfere with the expansion of a financial bubble unless such a bubble endangers attainement of the implicit inflation target (Evans-Pritchard.(2009)).

An analogous phenomenon probably occured with real time beliefs regarding the capabilities of modern financial methods in guiding financial investments. The mathematical rigour of such methods led decision-makers at financial institutions to excessively rely on such methods without sufficient scrutiny of the assumptions underlying them.

4 Interactions between the beliefs of professional economists, free markets ideology, politics and institutions in shaping policy responses in the US and Europe

Following the demise of Lehman Brothers about a year ago most economists and professional forecasters were producing rather gloomy forecasts for both the US and the world economy. At the time very few foresaw the upcoming huge monetary and fiscal expansions and other policy measures that were subsequently deployed . Given accurate predictions of policy responses it is likely that predictions made at the time would have been less pessimistic and nearer to subsequent developments. This observation dramatically illustrates the importance of conditionning

macroeconomic forecasts on well informed forecasts of policy responses. In this spirit the main issue discussed in this section is how well could those policy responses have been predicted at the time given professional economic beliefs and the long term objectives, ideologies and political environments of the major countries involved.

4.1 The impact of the great depression and its lessons in shaping policy responses to the global financial crisis

There is little doubt that the recent vigorous responses of both monetary and fiscal policies to the GFC, particularly in the US, are rooted in the experiences of the great depression and of 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 this flow 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 thirties.

Several academic publications centered on the experience of the great depression played a particularly important role in shaping the aggregate demand responses of US policymakers to the GFC. One is Friedman and Schwartz (1963) book which argues convincigly that restrictive monetary policy by the Fed were largely responsible for widespread bank failures during the first part of the thirties. The other, exactly twenty years later, is Bernanke (1983) AER paper that, building on the work of Friedman and Schwartz, 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 great depression.[6] 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 great depression have been strongly internalized by monetary authorities in the US, 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 US and central bank credit to the financial, real and government sectors rose to levels seldom observed.[7]

World fiscal policies were also substantially expanded. In the US this took the form of two huge expansionary fiscal packages. The TARP (Troubled Assets Relief Program) was legislated after a two weeks debate by Congress on October 3 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 US banking system. This was followed under Obama by the February 2009 ARRA (American Recovery and Reinvestment Act) 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 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 admin-

[6] A fuller discussion of the similarities and differences in policy responses between the GFC and the great depression appears in Cukierman (2009b).

[7] Between August 2008 and January 2009 the Fed's balance sheet increased by over 2.5 times.

istration for the financial sector. By 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 involvment in the economy. Nonetheless, due to the free marketthinking underlying US 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.

4.2 Institutional origins of differences in policy responses to the GFC between Europe and the US

Like the Fed, the ECB responded to the crisis by expanding its portofolio 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 percent to the 0-0.25 percent range effectively hitting the zero lower bound and is likely to stay in this range for some time. By contrast the ECB rate started to come down from a peak of 4.25 percent only a year later and reached a higher through of 1 percent several months after the Fed did.[8]

While some of this difference is due to the fact that, in comparison to the US, the crisis hit Euro area economies with some lag 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

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

objective of high employment and price stability. In addition the US 1946 full employment act makes federal policymaking institutions responsible for maintaing 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 tranqil times it does make a difference during times of crisis. Thus, during the oil shocks of the seventies German inflation came down earlier and was lower on average than that of the US (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.

5 The impact of politics and vested interests on international coordination of policies and on long term reforms

The speed with which adverse consequences of the financial crisis spread internationally in conjunction with memories of the great depression 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 coutries (Brazil, Russia, India and China) was acknowledged by expanding the G7 into a larger G20 forum. Leaders of the G20 met a number of times since the crisis intensification in 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.

5.1 Preservation of free trade

The great depression led most western countries to engage in beggar thy neighbor policies. In the mid 1930's 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 maintainance 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 infridgemnents on free trade can be found in several countries, it appears that the lessons of the great depression and the coordination efforts of the G20 are likely to deter trade wars on a scale anywhere similar to that experienced during the great depression.

5.2 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 reasons are responsible for the emergence of the US subprime bubble: Fractionalized and/or incomplete regulation of financial institutions and insufficient enforcement of existing regulation.[9] 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

[9] Detailed aspects of those failures are discussed in Cukierman (2009a).

Board (FSB) and the publication of a progress report against each of the 47 actions set out in the Washington plan. At the September 2009 Pittsburgh summit the G20 reiterated their 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 priviledge to regulate financial activity in their respective jurisdictions and even within the same country different regulators often argue about required regulatory reforms. [10]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 idiosyncracies 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 underly 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 an public good for the world.

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

5.3 Vested interests and the tradeoff between swift containement of a crisis and long term regulatory reform

At the peak of, and shortly after, the GFC there was an urge to seriously consider an overhaul of financial regulation and supervision. At the April 2009 London meeting the Group of 20 issued a lenghty and detailed declaration of intent on strenghening the global financial system (G20 (2009c)), the FSB was established and numerous recommendations for international cooperation and reform were issued. Similar pledges were made in the US by the Obama administration.

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 US. For historical reasons the US financial regulatory system is highly fragmented and incomplete. Although this state of affairs increases the operating efficiency of financial institutions at the micro level it enables them to ignore the negative externalities which they might impose on society.

The unexpectedly quick return of confidence in financial markets is obviously desirable. However, an undesirable byproduct is that it weakens the resolve of the US political establishement 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 specific of such reforms. In the absence of an urgency atmosphere this environment makes it easier for vested interests in the financial sector to water-down and/or retard needed regulatory reforms.

6 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 behavior of lenders, borrowers and stock markets and feed back from them onto the real economy and its rate of growth. Rational expectations models accomodate this circular loop between expectations and actual behavior 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.

While 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 coordinating devices, their spread rises.[11] 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*".

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

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. By contrast, equivocation or the absence of strong public action may lead to a spiral of self reinforcing pessimistic expectations. This observartion 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 September 15. Almost immediatly U.S. Treasury Secretary Henry Paulson proposed the Troubled Asset Relief Program (TARP) to Congress igniting a public discussion in Congress about the merits and demerits of the program. On September 22 and 23 Paulson and Fed Chairman Ben Bernanke delivered public speeches about the program to Congress urging it to pass the proposed bill and describing the dangers of inaction.[12] Congress deliberated for another week at the end of which the House of Representatives rejected the bill on September 29 2008. An amended TARP program was finally approved by both houses of Congress on October 3 2008. Within one or

[12] 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.

two days from the chapter 11 filing the CDS (credit default swap) 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 September 29 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 October 3 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 apprensions of the financial community. But within a week of the bill's approval the index returned to its pre September 15 range supporting the claim that, once there was a clear signal of policymakers' intentions to prevent spreading of the crisis, pessimistc 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 September 15 and October 3 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 fore-

casts 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 October 3 2008 financial bailout package was ratified by the US Congress was affected by policymakers' desire to quickly applies 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 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 precommit.

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 US and by Strauch, Hallerberg and von Hagen (2004) for Europe in the fiscal area. Advance announcements of unexpectedly favorable results are beneficial when they are subsequently backed by suitable policy actions and actually realized since they push expectations and the economy towards more favorable, self fulfilling equilibria early on. However, when subsequent developments are mixed, credibility is damaged eventually and policymakers' future ability to guide expectations is impaired.

7 Post WWII ratchets in transfers and taxes in the US and the industrial organization of Congress

Unlike most previous sections this one discusses an historical episode from the previous century. It draws on the post WWII experience with transfers and taxes in the US to illustrate the

importance of interactions between legislative institutions and politics for fiscal policy choices. Beetsma, Cukierman and Giuliodori (2009) document the existence of substantial ratchets in the relation between the share of defense in GDP, on one hand, and the GDP shares of transfers and taxes on the other, before, during and following WW-II. They find that, over the war cycle, the share of transfers is negatively related to the share of defense and the share of taxes is positively related to the share of defense. However, the increase in the share of transfers when the share of defense goes down after the War is significantly higher than the decrease in this share when defense expenditures go up at the beginning of the War. In parallel, the increase in the share of taxes or revenues per unit increase in the share of defense at the beginning of the War is significantly higher than the decrease in those shares per unit of decrease in the share of defense when the War is over.

The decade following the onset of the great depression was characterized by roughly a doubling in the shares of transfers and of federal revenues. In response to the impoverishement of the middle class by the great depression popular demand for transfers increased. Roosevelt and Congress responded by creating new transfer programs and by raising tax burdens on the wealthier deciles of the population.[13] However, under the influence of wealthier and more fiscally conservative constituencies in Congress, Roosevelt became concerned with excessive taxation of current and future generations and stopped short of satisfying all the popular demand for redistribution induced by the great depression.

Following the war there was a further doubling in the shares of transfers and taxes in comparison to the pre-war period. Beetsma et al. (op. cit.) argue that this further doubling was largely due to the existence of an unsatisfied popular demand for redistribution at the end of the thirties in conjunction with the structure of institutional arrangements that regulate the legislative processes within the US Congress. In particular the power to make proposals to

[13] Most prominent among those programs was the US social security system that was inaugurated in 1936.

the full floor of Congress in the areas of appropriations is left to specialized committees like the Appropriation and the Ways and Means Committees whose members normally represent wealthier constitutencies that prefer less redistribution and taxes than the median in Congress.[14] Those committees utilized their agenda setting powers in order to limit satisfaction of the popular demand for redistribution during the late thirties.[15] By contrast, in the face of the national emergency triggered by the outbreak of WW-II hostilities, the distributional conflict was set aside in the face of the common threath to national security. Consequently, a solid majority supported higher taxes to finance the defense effort, and taxes went up dramatically. WW-II ended, therefore, with a substantially higher status quo tax burden than in the pre-war period.

With the victory over Germany and Japan in sight the new status quo became too high for both the agenda setter in Congress as well as for the median voter. Consequently both had an interest in lowering taxes. The setter because of his traditional dislike for large government and the median because the war had pushed taxes even beyond his ideal point. Under those circumstances the setter could successfully propose a budgetary package that would cut taxes to some extent and use the remaining "peace dividend" resulting from the fall in defense spending to increase redistribution. This package benefited both the setter and the median relative to the post-war tax status quo. The upshot is that the post-WW-II ratchets in transfers and taxes constituted a long-delayed reaction of the political system to the partially unsatisfied popular demand for redistribution in the aftermath of the great depression. By creating a new, substantially higher, status quo tax rate WW-II provided the "supply" of taxes to further satisfy the excess popular demand for redistribution.

Interestingly there was no ratchet in transfers following WW-I. One important institu-

[14] This type of conflict between wealthier and poorer individuals over the burden of taxation needed to finance transfer payments has been stressed in the political economy literature by Meltzer and Richard (1981) and others.

[15] Legislative agenda setting power (or gate keeping authority) is well known in the political science literature (Fenno (1973). One of its strategic consequences is that the status quo tends to be more sluggish in comparison to pure direct democracy (Romer and Rosenthal (1979), Shepsle and Weingast (1981)).

tional change reponsible for this difference is that between the World Wars the U.S. witnessed a dramatic expansion of the voting franchise and of political participation by lower income groups, like women and minorities, that are relatively more in favour of redistribution. I conclude (with the benefit of hindsight) that a forecaster who knew those facts already in the thirties and was aware of the industrial organization of the US Congress could have partially predicted the post WWII bulge in transfer payments in spite of the absence of a similar phenomenon after WWI.

8 Concluding thoughts

In the aftermath of the GFC world policymakers and reformers are groping for instutional 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 "exagerated" 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: 1. Reforming policymaking institutions in ways that would minimize the buildup of subsantntial bubbles. 2. Development of early warning indicators for the possible emergence of bubbles.

Those tasks are beyond the scope of this paper. Instead the paper highlights a number of institutonal, political and ideological factors that contribute to the buildup of bubbles and that may be used as inputs for further thinking about those issues. Among those are free 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 entrepeneurship, 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 buildup 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 buildups.

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