Conference Draft

From Convoy to Parting Ways?
Post-crisis Divergence
Between European and US Macroeconomic Policies

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The initial response in 2008-2009 to the global financial crisis was in many ways a high water mark for transatlantic policy coordination – and, as importantly to crisis resolution, for common economic understanding. The major economies of the EU and the US came to rapid agreement on a series of measures to limit the crisis. These included coordinated interest rate cuts by central banks, extension of deposit guarantees, provision of liquidity and in some cases capital to systemically important financial institutions, significant fiscal stimulus, increased resources for the International Monetary Fund, and resistance to trade protectionism or beggar thy neighbour exchange rate policies. These efforts, which paid off, were amplified through the establishment of the G20 at heads of state and government level and the involvement of all its member economies, but they were undoubtedly driven by the common transatlantic approach.

The common EU-US approach to crisis response emerged in the few weeks after the Lehman Brothers debacle in September 2008, overcoming years of disagreement across the Atlantic on many of these issues (Cohen and Pisani-Ferry, 2007). By the time the G7 Finance ministers met on 10-11 October 2008, agreement on the immediate response to the banking crisis had essentially been reached. By the time the G20 leaders met on November 2008, there was agreement on the desirability of a budgetary stimulus. And by the time the G20 leaders met again in London in April 2009, all the building blocks of the common response were in place.

This response also was forged as much by European leadership and creativity as by any initiatives from the US government, then in transition to a new presidential administration. Difficulties from divergences within the euro area that have emerged in 2010 should not obscure the degree of previous cooperation. In particular, the UK government showed leadership on the response to banking problems, while the ECB set a model for other central banks in terms of rapidly finding means to provide liquidity to the banking system. On fiscal policy, there was certainly less intra-EU coordination than was advocated by the European Commission in autumn 2008, and the discretionary component of the stimulus was smaller in Europe than in the US - but most economies with fiscal space went well beyond the automatic stabilizers. Certainly, there were differences in the form of the policy responses, such as the adoption of quantitative easing by the US and UK central banks, and its rejection by the ECB. But they were not a source of tension, let alone of major divergence.

That agreement and common approach has since unravelled. Where the economic policymakers had been travelling in convoy in 2008-09, towards a common destination at a common velocity, protecting each others' flanks, in 2010 policy divergences between the US and Europe have emerged and they have come to dominate the international discussion on macroeconomic policy priorities. This is most visible in the budgetary field where transatlantic divergences dominated international discussions in the run-up to the Toronto G20 Summit of June 2010. US calls for a cautiously gradual exit from fiscal stimulus were rebuffed by the Europeans who put emphasis on consolidation and the Summit itself confirmed this trend with its all-encompassing, G7-style communiqué. On the monetary side, the central banks' stance also started to diverge, at least as regards announcements concern inflation risks and the imminence of exit. True, the actual policies pursued to date were not as dissimilar as suggested by public statements. Especially, Germany sounded very hawkish on fiscal policy in spring-summer 2010, but its actual consolidation programme was markedly cautious for the short-term. Nevertheless, words are indicative of differing policy directions.

Divergence was made all the more visible in Toronto in a context where discussions on policy priorities between advanced and emerging countries, which were expected to dominate the agenda had become less pressing. Contrary to the initial assumptions behind the G20-sponsorded "mutual assessment process", it became evident in Spring 2010 that domestic demand in the emerging world

was in fact as shockingly buoyant, and that there was no urgency to stimulate it. The absence of a North-South rift made room for a more traditional, G7-like transatlantic divergence.

The question, however, is why the initial "London consensus" has not survived for much more than a year, making room for the "Toronto divergence". As often, several competing explanations are on offer. One emphasises differentiated economic and financial structures as the origin of the dissimilar impacts of a common shock. According to this view, governments merely respond to different domestic economic developments – which a large part of the literature on coordination suggests is right as well as politically consistent. Another view stresses differences in the policy set-up arising from institutional constraints, especially though not only, as a result of the EU's particular policy set-up. A third one puts the onus on doctrine and ideology, and how that causes different perceptions of the policy challenges and risks faced by policymakers. Which of these have mattered and still matter, and which have not and do not, is what we aim to clarify in this paper.

From a policy standpoint it is indeed important to understand what motivates divergence, because different causes suggest different types of remedial actions, if any, and the desirability of so doing. To shed light on the issue, we start with an analysis of the different impacts across the Atlantic of the common shock from the financial crisis. We then take up successively monetary policy and fiscal policy. Findings are summarised in section 4, before we turn to international implications and policy recommendations in section 5.

1.Economic developments

The first reason for policies to differ is that that they have to deal with different problems. So the first question to ask is whether economic developments in the US and Europe have warranted, or still warrant going forward, asymmetric policy reactions.

Growth, Employment and Productivity

To start with basic facts, Figures 1a-1d compare the evolution of GDP, employment, output per hour and non-residential investment in the US, the euro area and the EU. Both the common character of the shock and some significant differences in later developments are apparent:

- First, US GDP declined less and recovered faster than either in the euro area or the UK – though it remains early days for a recovery which seems to weakening in the US, and perhaps strengthening in Northern continental Europe;

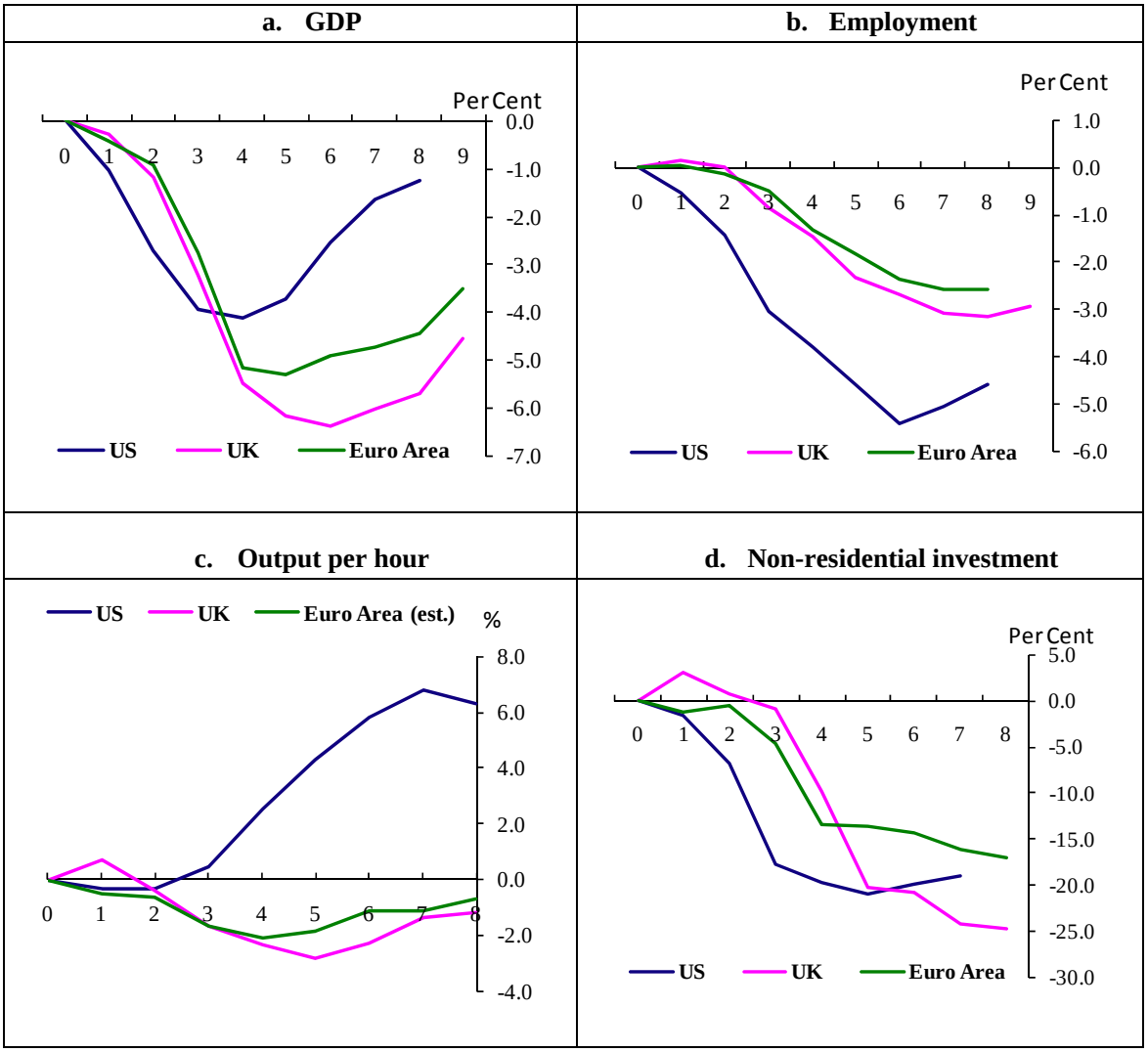
- Second, US employment declined much more than European employment and did not start exhibiting feeble signs of recovery until early 2010. Consequently, the 2008-2009 employment decline was exceptionally deep and prolonged in the US whereas in Europe (including the UK) it was by no means exceptional;

- Third, as a result, productivity developments have been strikingly divergent. Eight quarters after the start of the recession, output per hour had increased by about 7% in the US whereas it was still below the initial pre-crisis level in the euro area and the UK;

- Fourth, there are no major differences as regards the behaviour of investment, despite the differences in growth and in the financial system. It collapsed faster in the US but two years after the initial shock, it was in all three cases about 20 percent below its pre-crisis level.

Figure 1: Impact of the crisis on GDP, Employment, Output per Hour and Non-residential Investment in the US, the euro area and the UK

(Movements in quarters from pre-recession output peak)



Source: National data, ECB.
Note: pre-recession output peak is 2008Q1 for euro area and UK, 2008Q2 for US

It is not entirely clear why a large divergence in employment and therefore productivity can be observed between the US and Europe (where the evolutions in the euro area and the UK are remarkably similar). Part of the explanation is that US companies, which are less constrained by firing restrictions, traditionally adjust their payrolls faster than European counterparts. But if this was the only reason the evolution in the UK, where the labour market is traditionally assessed flexible, should mimic that of the US.[2] Part has to do with specific shocks affecting the real estate and finance sectors, which had grown very large in the US and on average much less so in Europe. And part results from the fact that in response to the crisis, several European governments introduced or strengthened

[2] A country where employment has evolved in a similar way as in the US is Spain, where employers have made use of the flexibility offered by temporary contracts.

schemes aimed at encouraging job preservation, such as the German *Kurtzarbeit* (IMF, 2010); those policies, however, did not include all countries with limited unemployment rises, such as the UK. The strength of the post-recession US productivity boom and the subdued productivity response in most part of continental Europe (Spain being an exception) both remain puzzling (Wilson, 2010).

Private deleveraging

The strength of domestic demand in the short to medium run largely depends on the extent to which private agents will engage in deleveraging. To assess the comparative situation in the US, the euro area and the UK, Table 1 shows the changes in levels of indebtedness from 1999 to 2007, and from 2007 to 2009. These data seem to tell a pretty clear story.

Table 1 – Changes in Indebtedness 1999-2009

Household

	US	UK	EA
1999	132.21%	70.60%	49.86%
2003	166.06%	87.34%	53.22%
2007	191.27%	97.49%	60.45%
2009	**187.09%**	**102.83%**	**62.88%**
Change 1999-2007	**59.06%**	**26.89%**	**10.59%**
Change 2007-2009	**-4.18%**	**5.34%**	**2.43%**

Corporate

	US	UK	EA
1999	102.39%	21.75%	37.90%
2003	103.48%	24.15%	40.35%
2007	123.13%	35.02%	48.94%
2009	**123.12%**	**35.11%**	**52.73%**
Change 1999-2007	**20.74%**	**13.26%**	**11.04%**
Change 2007-2009	**-0.01%**	**0.10%**	**3.80%**

Source: Eurostat, national central banks, authors' calculations
Note : stock at end of each year over nominal GDP (in local currency)

In the 2000s private non-financial agents went much more into debt in the US than in the UK, and, even more so versus the euro area. The contrast is striking, with the rise in household indebtedness as a share of GDP in the US more than twice as high as in the UK, and nearly six times as much as the total for the euro area – and the initial levels of household debt in the UK and the euro area were a fraction of those in the US in 1999. The change in non-financial corporate indebtedness offers a more comparable picture trans-atlantically, though the rise in the US as a share of GDP was larger than the rise in either the UK or euro area, and the initial level of debt was again much higher in the US economy.

There are signs that the deleveraging process for households and perhaps non-financial corporations has begun in the US, yet on a limited scale. It is not clear that such a process is inevitable for the euro area as a whole – though of course the divergences in indebtedness among member countries are quite enormous (and deleveraging has begun in Ireland and Spain). On the whole, these data do justify more concern about the risks to demand and recovery in the US than in Europe (including the UK), while also underlining the greater unsustainability of borrowing patterns on the American side of the Atlantic.

Supply-side optimism vs. supply-side pessimism

A key factor underlying policy reactions is the size of the negative supply-side shock resulting from the crisis – or at least the perceived size of this non-observable shock. If policymakers believe – rightly or wrongly – that the GDP declines essentially results from a demand shock, leaving potential output unaffected, they will be naturally inclined to advocate further stimulus. If they tend to believe – again, rightly or wrongly – that the supply-side damage is significant, they will have less appetite for it.

Empirical evidence on the impact of financial crises strongly suggests that they tend to result in significant permanent output losses (see Abiad, et al (2009), Cerra and Saxena (2008), OECD, (2010), Meier (2010), and Reinhart and Reinhart (2010)). These losses are generally assessed to come through three different channels: first, through the downward revision of pre-crisis potential output; second, through recession-induced damages caused to potential output; and third, through damage to the sustainable rate of trend growth. These tend to occur over time, and in part depend on the effectiveness of initial policy response, as seen in the fact that there is considerable variance in country experience and some succeed in minimising such losses. In the 1990s Sweden, for example, succeeded in entirely recovering initial output losses. Economic analysis indeed suggests that the magnitude of losses depends on institutions and policies, as well as on the global context.

Both official policy statements and available estimates from policy institutions suggest that supply-side optimism prevails in the US whereas the opposite holds in Europe. In the US, the Administration does not consider that the recession resulted in lowering potential output.[3] The Federal Reserve is more cautious in its assessment and does not rule out the possibility of an increase in structural unemployment, but it still regards the increase in unemployment as mostly cyclical (Kohn, 2010). The Congressional Budget Office (2010) is more pessimistic but even it considers that the medium-term output loss in comparison to pre-crisis projections should be lower than 2 per cent, half of which as a consequence of foregone investment. The view put forward by Minneapolis Fed president Narayana Kocherlatoka (2010), according to whom the equilibrium unemployment rate could have risen by three percentage points, remains a minority view.

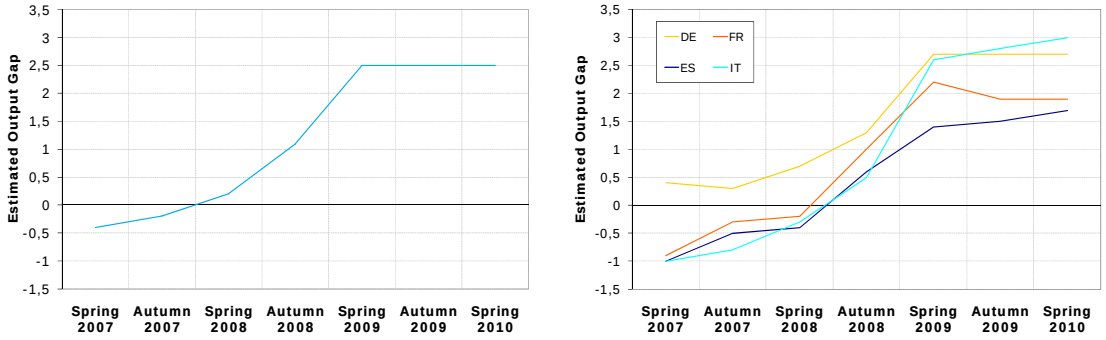
In Europe, by contrast, official statements indicate much more concern about the supply-side effects of the crisis. For the euro area, the European Commission (2010) asserted both that pre-crisis potential output had been overestimated and that the crisis would result in a permanent lowering of potential output. As a consequence, it has significantly revised estimates of the output gap in the euro area and other EU countries downward (and therefore the structural deficit upward), as indicated by Figure 2 which give the evolution over time of the output gap estimates for 2007. In addition, the Commission expects post-crisis damages to potential output, and it therefore assesses the permanent output reduction to be of the order of magnitude of 4 per cent of GDP, again in comparison to pre-crisis projections. In the UK, the new Office of Budget Responsibility[4] created by the current coalition government estimated in June 2010 that potential output in 2015 would be 8.75 percentage points below the level implied by trend growth of 2.75 per cent from the end of 2006. This was a downward

[3] As indicated by US Treasury Assistant Secretary Charles Collyns in response to questions after a talk given at Bruegel (Collyns, 2010).

[4] The OBR was created on 17 May 2010 to "provide independent forecasts of the public finances and the economy to inform fiscal policy decisions". According to the Chancellor of the Exchequer, George Osborne (2010), its creation implies that "the power the Chancellor has enjoyed for centuries to determine the growth and fiscal forecasts now resides with an independent body immune to the temptations of the political cycle".

revision in comparison to the 5.25 percentage points loss assumed in the pre-election March budget (OBR, 2010). These very large numbers, if determining policy, would significantly reduce the scope for demand-side policies and add to the urgency of consolidation.

Figure 2: Evolution of European Commission Estimates of the 2007 Euro Area Output Gap



Euro Area **Selected Euro Area Countries**

Source: European Commission, Economic Forecasts.
Note: the graph give the evolution of estimates of the output gap for the same year (2007). Each point on the X-axis corresponds to the date when the estimate was published

Transatlantic differences in the evaluation of the impact of the crisis on potential output and equilibrium unemployment are first-order in magnitude (Table 2). Taken at face value, they are bound to have profound implications for the setting of policy objectives and policy strategies.

Table 2: National Estimates of Potential Output Losses and Structural Unemployment Increases

		Potential output loss	Structural Unemployment	
	Source	*(in percent of pre-crisis potential output)*	*Pre-crisis*	*Current*
US	CBO	-1.75*	4.80%	5.00%
UK	OBR	-8.75**	5.25%	5.25%
EA	Commission	-3.7***	7.50%	9.00%

Sources : CBO August 2010 "Economic and Budget Outlook" (US); March 2010 Budget Forecasts (Initial) and June 2010 Pre-Budget Report (Revised) (UK) ; ECFIN June 2009 estimates, Spring 2007 and Spring 2010 Economic Forecasts (EA).
** (US) : 2015-2020, ** (UK) : 2015, *** (EA) : 2013*

Is this difference justified? According to the OECD (2010), the reduction in potential output arises from a combination of three main factors:

- A lower capital stock. Foregone investment and a higher cost of capital negatively affect capital deepening and hence output per employee. The higher cost of capital is expected to result from a return of risk aversion to more normal level and from the introduction of higher bank capital ratios. The latter effect, however, is likely to be small in the medium run (BCBS, 2010). In a financially globalised context, there are few reasons why the magnitude of this effect should differ across countries – although the size of an economy's SME sector, with its dependence on collateralized bank lending for finance, may be one source of difference. In any event, Graph 1d actually indicates that in the time since the crisis to date, capital

expenditures have followed a similar evolution in all three cases; the impact on capital stock would accumulate over time.

- Unemployment hysteresis affecting both equilibrium unemployment and labour force participation. The magnitude of this effect depends on the size and composition of the unemployment shock. It is bound to be larger in countries which have suffered from larger and sectorally more concentrated employment losses and/or more regional divergences in employment markets. Going the other way, it is expected to be lower in countries with more responsive labour and product markets markets, where job reallocation takes place faster.[5]

- Reductions in Total Factor Productivity (TFP) resulting from sectoral reallocations from high- to low-productivity sectors, skill mismatches and lower research and development expenditures. The magnitude of this effect again depends on the size and the nature of the shock, as well as on the policies put in place to favour reallocation, skill acquisition and retraining. The degree of financial dysfunction in a country would have a lasting effect via this mechanism.

Taking these three factors into account, the OECD (2010) assesses potential output losses to be about 3 per cent in the US, between 3 and 4 per cent in the UK, France, the Netherlands and Germany, and a little more than 4 per cent in Italy – thus, importantly, comparable for most major western economies. The estimated loss is 9 per cent in Spain, where the bursting of the construction bubble is expected to result in a severe increase in structural unemployment and a significant lowering of the labour force participation rate. As to structural unemployment rates, estimates from the OECD 2010 spring forecast put their increase between 2007 and 2010 at 0.7 percentage points for the euro area and 0.3 percentage points for both the UK and the US, hardly a policy-significant difference. We are skeptical of these latter estimates, and expect them to rise over time, both in reality as hysteresis kicks in, and as data gets updated – in fact, while the demand-driven rise in unemployment in the US is the predominant share, the rise in unemployment is so high that it could well involve a one to two percentage points rise in structural unemployment, which longer-term persistence will worsen.

Differences in the nature and size of the shock, labour market institutions and the functioning of labour and capital markets are therefore not sufficient to explain away the observed difference in policy assumptions. Some more supply-side optimism seems to be warranted in the US, given both the recent productivity numbers (even heavily discounted) and a history of full recovery following shocks - but there is little evidence-based justification to rule out permanent effects altogether in the US economy. Conversely, European pessimism may well be exaggerated, especially given the lesser rises in unemployment and in private leverage, and that pessimism may take policy ineffectiveness for granted. In both cases, the policymakers' beliefs may in the end be self-fulfilling, as an active demand-side policy can help contain hysteresis and stimulate investment whereas a policy that starts from the opposite assumption may be vindicated ex post (Posen 2010a)

Summing up, differences in the magnitude and the character of the shocks and institutions may account for part of the contrast between US supply-side optimism and European supply-side pessimism. But beliefs about the supply-side effects of the crisis also matter, especially in how they will shape policy responses. Those differences in belief may help us understand why, in spite of

[5] In addition migration can magnify employment shocks as discouraged workers may migrate to other countries with better employment outlooks. This factor however is second-order in a comparison between Europe and the US.

having suffered an initially lower output shock than Europe, the US has been consistently more in favour of stimulating aggregate demand through monetary and budgetary policies.

Political economics

A last reason why policies may differ is that political economy constraints are not identical. Some of them are specific to policy fields and they are addressed in the reminder of the paper, but one is general: the political cost of mass unemployment. In this respect the US and European situation differ on two accounts:

- First, unemployment in the US is back to levels not seen since the early 1980s, close to post-war highs. In Europe, however, the employment recession is by no means exceptional and unemployment rates in the euro area or the UK are essentially back where they were in 1996-1997, significantly below post-war highs;
- Second, as well known US unemployment insurance does not cover long-term unemployment whereas schemes to supplement the income of the long-term unemployed are widespread in Europe, making unemployment more tolerable.

In these conditions Joseph Stiglitz's saying, according to whom 'our welfare state is our monetary policy' applies in the US. It results in a call for action, including as regards fiscal policy as monetary policy has hit the zero bound. In Europe, by contrast, the political urgency of action is much less. Political economics may therefore also help to explain different policy attitudes.

2. Monetary policy

We now turn to comparing the actual policy responses, starting with monetary policy, for which we first look at institutional constraints before comparing actual behaviour.

Institutional constraints

There were several reasons for the US Federal Reserve [Fed] and the Bank of England [BoE] on one side, and the European Central Bank [ECB] on the other, to respond differently to the crisis. To start with, they had (and still have) different mandates, most clearly as regards output stabilisation and financial stability (Table 3). The ECB has a notably more narrowly defined mandate than the other two central banks; it does not have explicit responsibility for financial stability nor a formal lender-of-last-resort role; and by its very nature, liquidity assistance is decentralised at the level of the national central banks.

Table 3: Main characteristics of central bank mandates

	Price stability	Exchange-rate stability	Output stabilisation	Financial stability
US Fed	Yes	No, but may intervene on foreign exchange markets and at request of the US Treasury	Yes, on an equal footing with price stability	Yes, including supervision of major bank holding companies

ECB	Yes	No, but may intervene on foreign exchange markets.	Yes, secondary to price stability	Not explicitly
Bank of England	Yes. Definition of price stability belongs to government	No	Yes, secondary to price stability	Yes, but no direct supervisory responsibilities (until 2012)

Source: Adapted from Bénassy-Quéré et al. (2010)

The importance of stated mandates as determinants of central bank behaviour, however, should not be overstated (Kuttner and Posen (2009)). It is a general result of political economy that some institutions increase their mandates through activity in a crisis. It is well recognized that the Fed in fact did so during 2008-2009, but so did the ECB: its reach into financial matters has gradually strengthened throughout the crisis as indicated by: the involvement of its president, Jean-Claude Trichet, in the rescue of the Fortis and Dexia banking groups in autumn 2008; the 2009 agreement to give it leadership in the European Systemic Risk Board in charge of macroprudential supervision; the role it played design of conditional assistance to Greece and providing liquidity to distressed banks in spring 2010; and the launch of a government bonds purchase programme in May 2010. Similarly, the BoE is regaining control over bank supervision, and created new asset purchase facilities of various kinds over the course of the crisis.

Second, as reflected in the financial stability aspect of their mandates (and ex post in their relative willingness to exceed those limits), there were significant differences in the three central banks' relationships with their respective national governments and regulatory authorities. Times of acute financial stress require the sharing of information and the rapid making of unified decisions. In the US and the UK the central bank is part of the government, though independent from elected officials with regard to specific monetary policy decisions. There are institutionalized and informal channels of regular communication between these two central banks and their nations' treasuries and bank superviors.[6]

The ECB, however, is not part of any member state's government and there are distinctly limited communication channels between it and the EU executives or national authorities.[7] When the crisis broke out, the ECB had no privileged access to needed information from national bank supervisors, nor even established channels of communication with them (Pisani-Ferry and Sapir, 2010). Although some of these limitations have been overcome, ongoing consultations between ECB officials and euro area governments regarding financial stability remain much less intensive and ongoing than occurs in the US or the UK.

Third, and most importantly, the central banks' monetary policies followed different strategies and had different priorities going into and now coming out of the crisis. The US Fed has much more room for

[6] This point should not be taken to indicate an absence of coordination failures. As illustrated by the calls for consolidation of supervisors in the US and by the recently announced replacement of the 'tripartite' regulatory system in the UK, there were breakdowns. But these were seen as failures rather than inherent, as they would be in the Euro Area, and they notably did not extend to fiscal-monetary relations.

[7] The President of the ECB attends the monthly meetings of the euro-area finance ministers and the Vice-President attends the monthly meetings of the state secretaries (Economic and Financial Committee). Also, the European Commissioner for Economic and Monetary Affairs may attend the monthly meetings of the ECB Governing Council. But there are no high-frequency, multi-level meetings as in the US or in the UK.

discretion than the other two central banks as it had neither been given nor adopted an explicit nominal target, and instead has a commitment to a 'dual mandate' of output and price stabilization. The ECB has an inflation goal set by treaty, and a 'two-pillar' approach based on both price developments and forecasts as well as on monetary developments. The BoE operates under a precisely defined inflation targeting framework. Thus, the BoE is most tied to its inflation forecast, while the ECB can always justify a deviation from its inflation goal with reference to its monetary pillar, and the Fed can change its intermediate target as suits a majority of the FOMC, so long as at least one of growth and prices is moving in the desirable direction.

Still, all three central banks behaved similarly during the decade of the Great Moderation (as estimated for example by reaction functions (e.g., Belke and Polleit (2007)), given the demonstrated ability to maintain low inflation at no apparent cost to growth or volatility. All three were committed to opposing the risk of outright deflation in autumn 2008, consistent with the clear assessment of the imminent danger and their common commitment to price stability. Their strategic approaches, however, have led to different plans for coping with uncertainty about inflation post-crisis.

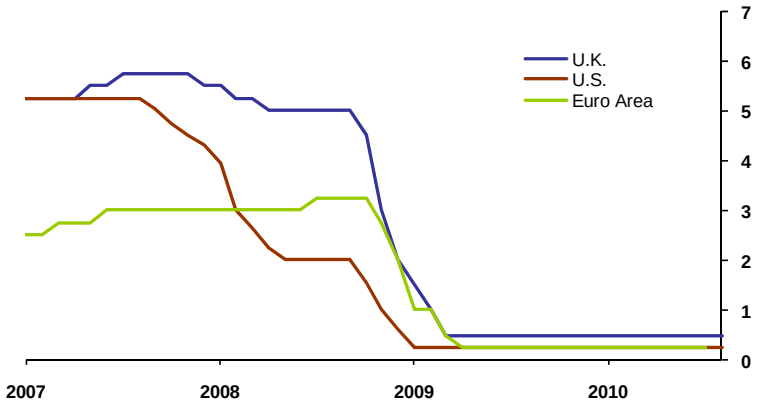
Fourth, the three central banks' operational frameworks for providing liquidity to their respective banking systems differed as well. The ECB operated primarily through large-scale repo transactions prior to the crisis, and it was thus able to accept from the banks a very great quantity of a very wide range of collateral assets, which made particularly easy the provision of liquidity. The range of assets that are eligible as collateral for central bank lending was markedly narrower in the US and the UK (where monetary policy essentially consisted only of buying and selling Treasury securities on the open market prior to the crisis). The Fed and BoE had to play catch-up with the ECB, adding a host of acronymed 'facilities' to try to achieve the same effect once the zero-lower bound on nominal interest rates was reached.

Similarities and differences

Against this background, the monetary and financial stability policies pursued by the three central banks have been in some respects remarkably similar, indicating that shared assessments of the risks to the financial system and the economy were strong enough to overcome institutional constraints. Interest rate policies were broadly identical, at least from the Lehman shock in September 2008 until summer 2010, as all three central banks brought policy rates de facto to zero within weeks (Figure 3).[8] And responses to outbreaks of acute interbank market illiquidity were also remarkably parallel. Within hours after indications of paralysis emerged on the interbank market, all three central banks provided wholesale liquidity to the banking system. They expanded and rolled over their liquidity programmes as much and for as long as necessary to ward off liquidity shortages. When interbank markets locked up again for several euro area banks in spring 2010, the ECB again intervened without hesitation.

[8] Although the ECB's policy rate was only reduced to 1 percent, the adoption of a scheme for unlimited provision of liquidity in September 2008 implied that the 1 percent level become a ceiling rather than a reference for market rates.

Figure 3: Policy Rates in the US, the euro area and the UK, 2007-2010



Source: central banks

There have, however, also been significant differences in the response, which have grown more important over time. The three most important are different attitudes towards quantitative and credit easing, different policies as regards partner countries and different perspectives on the economic outlook.

Quantitative and credit easing

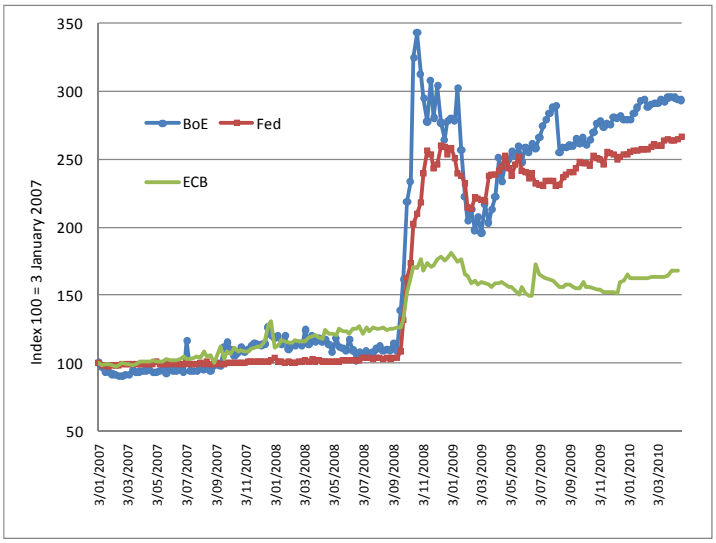
Probably the most notable difference among the three central banks is that the BoE and the Fed have undertaken significant *quantitative easing*, but the ECB has not undertaken any. The BoE and the Fed indicated in early 2009 that they considered it necessary to supplement interest rate cuts with loosening through unconventional instruments (Bernanke, 2009; King, 2009) – they both believed that the interest rate cuts were an insufficient response to the scale of the shock. The Fed has since proceeded to purchase vast quantities of mortgage backed securities and agency paper as well as Treasuries, while the BoE has purchased essentially only gilts (long-term government bonds), reflecting differences in the respective economies' depth of markets and beliefs about which type of purchase would be more politicizing. Their general approach and scale of quantitative easing has been similar, however, and so are the estimated effects on interest rate spreads (Gagnon, et al (2010); Joyce, et al (2010)).

At the same time, the ECB has consistently rejected the ideas that it either had to go beyond the provision of liquidity to banks, to overcome the zero bound through purchasing of government bonds, or to attempt to influence the shape of the yield curve. The asset purchase programmes it announced (a covered bonds purchase programme in 2009 and a sovereign bonds purchase programme in 2010) were intended to be of limited magnitude and to be sterilized so as to have no impact on aggregate money supply. Consistent with this approach, the ECB's balance sheet increased expanded by far less than those of the two other central banks (Figure 4).

Also *credit easing* (i.e. specific asset purchase programmes undertaken with the aim of restoring liquidity in asset market segments) was undertaken by all three central banks, but to an uneven degree. The Fed undertook early on to unfreeze clogged market segments such as the commercial paper as well as student loan and other securitization markets. The BoE offered a commercial paper facility, but had few takers. Through the early stages of the crisis, the ECB was satisfied with its liquidity provision measures to the banking system, perhaps because of the greater importance of bank lending versus securities markets in the Euro Area. As indicated already, the ECB did undertake credit easing

actions, however, at a late stage after the Greek crisis erupted in early 2010 and it did it with evident reluctance, without having stated its aims, and only for a rather short period.

Figure 4: Central bank balance sheets, 2007-2010



Source: central banks, authors' calculations

Such marked differences between the three central banks responses' to a common simultaneous shock, and to one for which at least initially all three had the same assessment and interest rate response, merits understanding. It could be argued that these differences merely result from structural rather than policy factors. Certainly, part of the explanation has to do with differences in the transmission of the shock through distinctive financial structures. The US economy relies much more on securitized, market-based finance than the bank-lending centred economies of continental Europe, with UK somewhere between the two.[9] As a result, there was logic that in 2008-2009 the Fed gave priority to restoring liquidity in key securities markets whereas the priority in the euro area was to ensure liquidity access for the banks and make sure that they were able to perform their credit distribution role.

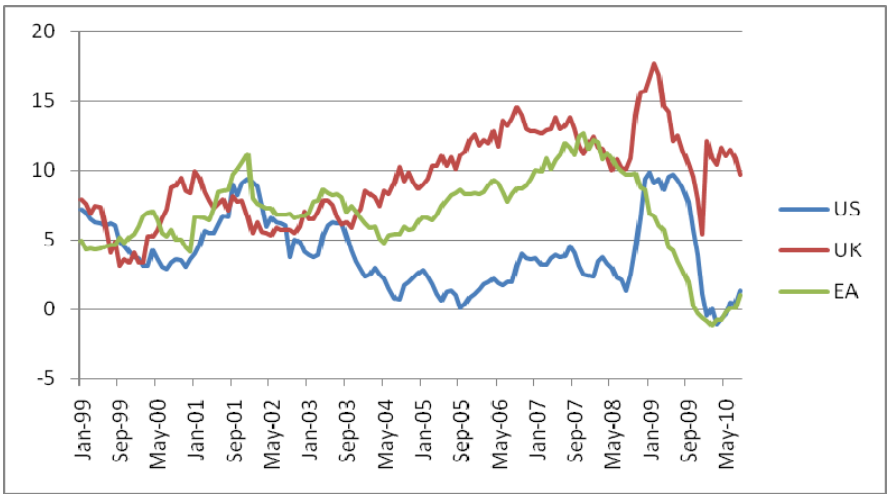
For that reason, it is easier to explain the difference in credit easing across the Atlantic, than in quantitative easing. It is perfectly reasonable for the central bank to try end-run banks in an economy where a large number of non-financial agents borrow directly on the market, while it is just as reasonable for the central bank to act through the banking system in an economy that relies mainly on banks to channel credit to non-financial agents. Given that structural difference, it is clear that the money multiplier contracted more in the US and the UK than in continental Europe – and as argued in von Hagen (2009), this could help to explain why the base money response had to be more aggressive in the former case than in the latter one.

Yet, the irony that it is the one major central bank with a publicly declared monetary pillar which has countenanced a large and sustained decline in broad money (i.e., credit) growth, without any use of quantitative measures to offset said decline is striking. As seen in figure 5, for all three central banks,

[9] Observers used to refer to more 'arms-length' financing in US and UK than in continental Europe, but developments in the 2000s leading up to the financial crisis indicate that concept misleads more than it elucidates, both positively and normatively.

broad money growth went way down after the crisis (less so on this measure for the UK than for the US or Euro Area). In fact, the largest sustained decline in trend monetary growth versus pre-crisis average has taken place in the Euro Area, perhaps as a result of the lack of quantitative easing undertaken by the ECB. Remember, this is broad money so a measure of credit outcomes, not of an instrument like base money which the central bank controls.

Figure 5: Growth in Broad Money Aggregates, 1999-2010



Source: central banks

Quantitative easing is a substitute for interest rate policy when traditional monetary stimulus has reached its limits and/or been frustrated by financial instability. The pros and cons of its adoption do not depend on the specifics of the monetary transmission mechanism. So the difference between, on the one hand, the Fed and the BoE and, on the other hand, the ECB, is a genuine one. The ECB's rejection of quantitative easing cannot be attributed to conditions only, nor can it be a question of greater faith in monetarism in the Anglo-Saxon than in the continental central banks. Rather, the lesser degree of activism on the part of the ECB was first and foremost a matter of political doctrine.

The ECB could relatively easily embark on wholesale liquidity provision to the banking sector, but not on wholesale purchase of government bonds, because the former was not perceived as contradicting the spirit of the EU treaty, whereas the latter was seen as running against a fundamental treaty provision, the strict separation between monetary and budgetary policy.[10]

The Maastricht treaty is very clear in the priority ascribed to protecting monetary policy from the consequences of budgetary policy. Although an outright purchase of government bonds on the secondary market does not violate the letter of the treaty, it is admittedly not in accordance with its spirit and this acted as a constraint. In the US, however, management of the yield curve by the Federal Reserve is merely a return to the early 1950s when the Fed had an explicit mandate to ensure the stability of the long-term rates at low level (Woodford, 2001). Fiscal-monetary coordination is not alien to the US policy tradition, nor does it evoke dreadful times. Indeed the lack of clarity of the EU treaty about the financial stability responsibilities of the ECB can be ascribed to disagreements over the vertical distribution of tasks within the Eurosystem, not to disagreements over the doctrine of

[10] This argument was echoed in various ways in the UK (where the government gave an indemnity for the BoE's potential future losses on gilt purchase) and the US (where some of the advocates of credit easing said extensive Fed purchases of government bonds would constitute an erosion of fiscal discipline), but too faintly to constrain policy.

central banking. This lack of clarity was overcome in the height of the crisis. On quantitative easing, however, there was little room for reinterpretation it seemed, at least as a political reality.[11]

The same can be said of targeted asset purchase programmes like the one undertaken by the ECB in May 2010. Although this programme was explicitly framed as qualitative rather than quantitative (and as all operations carried out within it were entirely sterilised), its adoption was controversial even within the ECB because it was regarded by some influential parties as implying the transformation of the ECB into a quasi-fiscal agent. Bundesbank Governor Weber publicly opposed the measure. The ECB was quick to propose the creation of a European crisis management institution that would take over from the central bank the role of assisting sovereign issuers (ECB, 2010). There was no expansion of mandate or tools undertaken or even attempted by the ECB in the situation.

International swap agreements

Turning to international aspects, another significant difference is that only the Fed embarked on significant cross-border provision of liquidity through swap lines. In 2008-2009 the ECB remained much more guarded in its approach to cooperation with central banks outside the euro area, including critically not providing euro cash to EU members who are future euro area members and who had large outstanding euro-denominated (private-sector) debt (Darvas, 2009). Some other EU central banks, like the Swedish Riksbank, provided euro lines to banks exposed in Eastern Europe, and financed them through swaps with the ECB, but this did not fully substitute direct ECB liquidity provision.[12]

Frankfurt's reluctance to embark on liquidity assistance outside the euro area in spite of evident needs and repeated requests from Central and Eastern European member states can be ascribed in part to institutional limitations. Unlike for the provision of liquidity to banks, the provision of cross-border euro liquidity would have involved taking risks outside the remit ascribed to the ECB by the EU treaty, which does not envisage any financial responsibility for it in the wider EU region. In the event of a loss, the ECB would have had difficulties giving a legal basis for its action. Only an encouragement by the EU budgetary authority i.e. the Council, would have allowed the ECB to exceed its mandate, but this encouragement would probably have been considered in contradiction with the independence of the ECB. In the end the ECB entered into a semi-clandestine swap agreement with the Bank of Sweden, which in turn provided euro liquidity to some of the new member states. The disinterest of the political authorities to have the ECB provide such swap lines in turn reflected a long-standing reluctance to have the euro play a stronger global or regional role.[13]

Policy outlook

The last but certainly not the least of the differences among central banks has been their perspective on the economic outlook. Whereas their policy stance had been remarkably similar in 2008-2009, by spring 2010 the ECB on the one hand and the Anglo-Saxon central banks on the other hand started to adopt markedly different perspectives on their respective economic forecasts and assessments of risks. In the euro area, the focus gradually moved towards emphasis on the need to exit the period of exceptional support whereas the Fed and the BoE were more willing to continue extending monetary

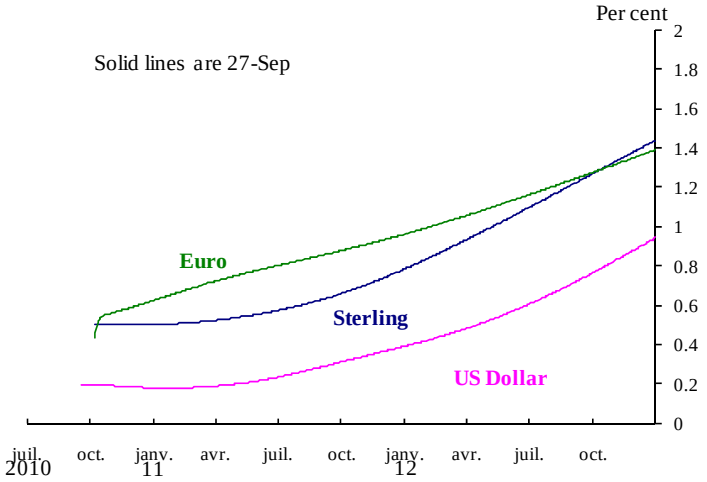
[11] Posen (2010b) makes a case for how such bond purchases do not compromise central bank independence.

[12] For the BoE, such swap lines are not relevant given the pound's limited global usage.

[13] We do not pursue the discussion further here as it is incidental to the theme of this paper. For further discussion see Pisani-Ferry and Posen (2009).

support (or at least to hold off on exiting). This divergence had already emerged by early 2010, but it was overshadowed by mounting concerns over sovereign finances in the euro area and the ECB's need to respond to the resulting stress in financial markets. As market participants became concerned about the fallout of sovereign downgrades and the possible consequences of potential defaults for national banking systems, the ECB had to resume direct liquidity provision instead of winding it down as expected. But by autumn 2010 the ECB's focus was again on exit and markets expected a rise in interest rates to take place in early 2011. By contrast the policy outlook in the US and the UK remained markedly more tilted towards continued monetary support of recovery (Figure 6).

Figure 6: Market Expectations of Money Market Interest Rates on 27 September 2010



Source: Bank of England, Bloomberg

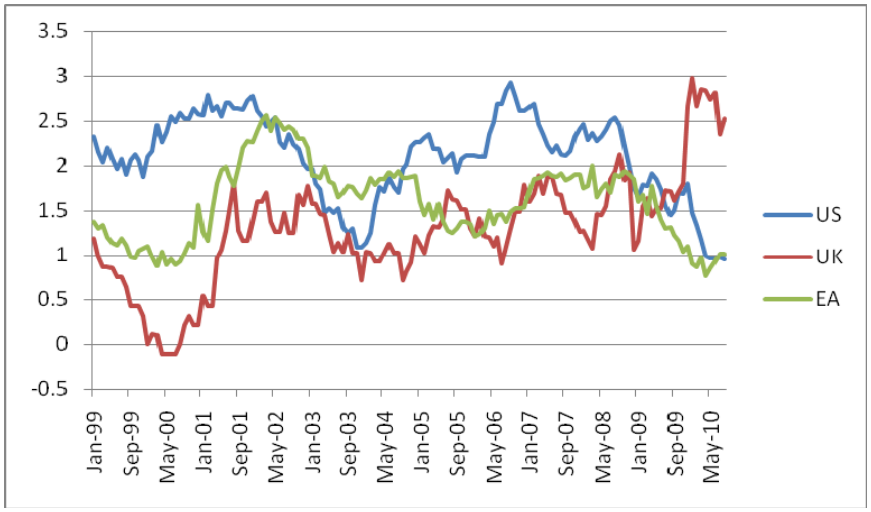
Summing up

In the end, central bank policy reactions to the crisis demonstrated both remarkable initial convergence in view of dissimilar traditions and institutional constraints across the Atlantic, and significant divergences in policy strategy, the instruments used, and ultimately on the outlook once the worst had passed. Even the sovereign debt crisis of Spring 2010 did not prompt greater activism from the ECB beyond immediate and targeted liquidity provision. On the basis of the track record this far and the policy announcements made, we posit that divergences are likely to grow larger in the aftermath of the recovery.

Our reading is that two factors dominate. First, as documented in the previous section, central banks exhibit different stances as regards the desirability of stimulating demand. Analyses of supply-side developments and the assessment of the extent of slack that remains in the economy weigh significantly, as the magnitude of the output gap is a key determinant of the strength of deflationary pressures. Yet, this difference has more to do with the underlying assessment of potential output, how lasting the shock's impact on potential would be, and the rightness of monetary ease in dealing with adjustment – that is, the degree essentially of a demand- versus supply-dominated view of monetary policy's role – than with the outlook per se. Figure 7 shows comparable core inflation rates for the US, UK, and euro area. While the UK has seen a spike in inflation passed through from Sterling weakness and a VAT increase, in both the euro area and the US core inflation is coming down to historical lows. In all three economies, the best single predictor of future inflation is lagged core

inflation, so inflation would be well below target in both the US and euro area (and coming back towards target in the UK).

Figure 7: Core Inflation Rates 1999-Present



Source: central banks

The second main difference between, on the one hand, the Fed and the BoE and, on the other hand, the ECB, has to do with their relationship with government. Where this relationship was unproblematic – in the US and the UK - the central bank was much freer to go beyond its usual mission than where it was problematic - in the euro area. This is likely to continue weighting on the willingness to embrace non-conventional policies in continental Europe, even if the ECB is expanding its mandate on the financial stability side.

3. Fiscal policy

Institutional settings and constraints

Institutional constraints matter considerably in the field of budgetary policy. Three are especially relevant to the transatlantic comparison.

To start with, US budgetary policy is carried out by the federal government while in the EU, it is only the states whose budgets have a macroeconomic role. The traditional Musgravian allocation of responsibilities, which assigns stabilisation to the central level, therefore does not apply to Europe where the EU budget plays no macroeconomic role whatsoever.

A second difference is the role of automatic stabilisers. As indicated in Table 4 below, the share of (general) government outlays in GDP is significantly larger in Europe than in the US, which mechanically increases the impact of automatic stabilisers. Furthermore, more than 40% of current public expenditures in the US are carried out by state and local governments, most of which are subject to some sort of balanced-budget rules and therefore cannot let automatic stabilisers play in full. The upshot is that sub-federal budgets tend to behave pro-cyclically and that as a consequence automatic stabilisers are markedly weaker in the US than in the EU on net, even more than relative size of the public sector would indicate.

Finally, euro area national governments are subject to common rules within the framework of the Stability and Growth Pact (SGP).[14] Whereas the SGP does not preclude discretionary counter-cyclical policies, in practice it creates obstacles to them in countries whose initial budgetary situation is not strong and it can therefore induce pro-cyclical behaviour. These constraints, which tend to make European discretionary budgetary policy less counter-cyclical than in the US, matter considerably because of the diversity of situations within the EU. In fact, although the pre-crisis *aggregate* budgetary situation was roughly similar on the two sides of the Atlantic (Table 4), the disaggregated picture was in fact strikingly different, with public debt ratios in 2007 ranging from 25-40 percent of GDP in Ireland and Finland (and even less in some non euro-area countries) to more than 100% in Greece and Italy.

Table 4: Pre-crisis budgetary indicators, 2007

Percent of GDP

	US	Euro area	UK
Gross public debt	61.9	71.0	47.4
Net public debt	42.2	42.6	28.8
Budgetary balance	-2.8	-0.6	-2.7
Total outlays	36.8	46.0	44.2

Source: OECD, Economic Outlook database

Taken together, institutional constraints imply stronger automatic stabilisers in Europe and a stronger discretionary role for the US federal budget because (a) the latter has responsibility for overall stabilisation and (b) must offset the pro-cyclical behaviour of state governments, while (c) EU member governments start from uneven positions and may be forced to consolidate either by the newly aggressive demands for enforcement of the SGP or by market pressures.

Fiscal stance

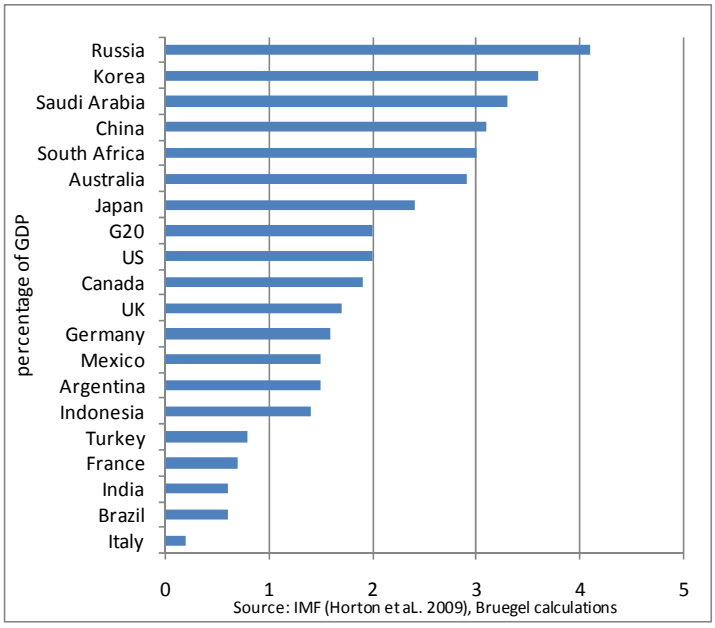
As indicated by the discrepancy between traditional ex-post measurements based on the change of structural budget balance indicators and ex-ante measurements based on the evaluation of actual discretionary decisions, evaluating the fiscal stance in normal times is less easy than it looks. But it is even more challenging in times of financial and economic stress. Indeed, the usual structural balance indicators produced by international organisations such as the IMF, the OECD and the European Commission are affected by assumptions made about the supply-side impact of the crisis and the timing of its effects. Changes in the structural balance are therefore not reliable indicators of the actual fiscal stance any longer.

For 2009, the IMF (2009) produced estimates of the discretionary stimulus delivered by the G20 countries, which are broadly consistent with estimates produced independently.[15] They indicate that consistent with what could be expected from institutional constraints and past record, the US delivered more discretionary stimulus than the UK and euro area countries, but that the broad gist of policies was similar (Figure 8). This was in stark contrast with certain past episodes when attempts to coordinate policy responses resulted in failures.

[14] The prevention of excessive deficits that is enshrined in the treaty nominally applies to all member countries irrespective of their monetary status, but sanctions can only be applied to euro-area members. In practice common budgetary rules have a stronger bearing on the euro area member countries' budgetary behaviour.

[15] See for example von Weizsäcker and Saha (2009).

Figure 8: 2009 discretionary stimulus as a percentage of GDP in the G20 countries



2010 has been a broadly neutral year in most countries as far as the fiscal stance is concerned, but debates have been taking place as regards the appropriate stance for the years ahead. The transatlantic difference in attitude became more and more apparent during spring and even resulted in an open rift in the run-up to the June 2010 G20 summit where plans for 2011 and beyond were compared. Discussions had been held by European ministers in autumn 2009 already on a coordinated "exit strategy" with the aim of reversing the stance of budgetary policy in 2011 at the latest. The actual the pace of exit was accelerated by bond market tensions affecting Southern Europe and Ireland in spring 2010, which led to a series of policy U-turns in Greece, Spain, Portugal, and to policy adjustments in Italy. Consolidation plans in Southern Europe affected the 2010 stance already. In other euro area countries (especially Germany and France), moderate consolidation measures are on the agenda for 2011. Overall, a fiscal contraction amounting to one percentage point of GDP is expected in the euro area in both 2011 and 2012. In the UK the Cameron government announced in June a major consolidation programme over 4 years, the consequence of which is a reduction of the cyclically adjusted net borrowing by more than 2 percentage points per in the next two years.

In the US, however, the debate is still about the continuation of stimulus and the Obama administration agreed only reluctantly to the G20 June commitment to halve budget deficits between 2010 and 2013 and to stabilise public debts by 2016. Plans released by the Office of Management and Budget in Summer 2010 envisaged phasing-out of the fiscal stimulus over two years and stabilising the federal deficit at about 4% of GDP in the years to come, without attempting to reduce the debt ratio. There are talks of medium-term consolidation plans but no concrete programme at this stage.

Several explanations can be given for this difference in attitudes:

- A first motivation is that economic situations, and the perception of them were different, as previously discussed - though as indicated the difference in supply impact across the Atlantic is exaggerated;

- A second explanation has to do with the differences in the fiscal space governments enjoy. Clearly, many smaller European countries 'felt the heat' sooner and more distinctly than the US because of the fragmentation of national budgets and the privileged status of US government securities. More generally, concerns over public finance sustainability are pervasive in Europe whereas they appear to be much less salient in the US;

- Third, policy doctrines may differ. Confidence in the Keynesian effects of counter-cyclical fiscal policy is far from universal in the US but it is more widely accepted than in Europe where many policymakers are closer to the Ricardian or to classical views of the limited effectiveness of fiscal policy. This is in part related to supply-side pessimism but to a fragmentation argument as well: for small, open economies, the counter-cyclical effects of a stimulus are necessarily smaller, and the balance between Keynesian and Ricardian effects different, than for a large continental economy like the US, whose financial assets are in global demand. Europe does not see fiscal policy on the aggregate but through the eyes of the national policymakers (thereby often from a small-country perspective);

- Finally, political economy matters. Disagreements over the distribution of the budgetary adjustment burden are probably more significant in the US than they are in the typical European countries and the preference for tax cuts is markedly more pronounced. Sustainability concerns are not overshadowed by disputes over taxation and spending as they are in the US.

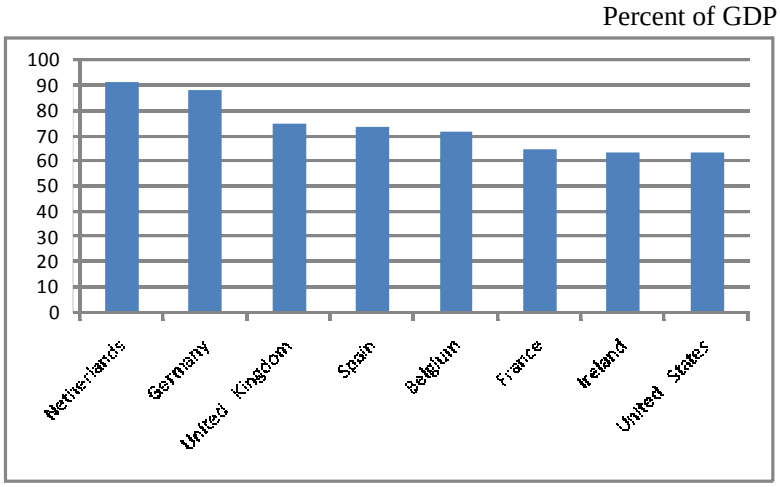
Fiscal space and sustainability

A potential motive for differing views on the urgency of fiscal retrenchment is that countries do not have the same fiscal space. Where sustainability is more remote a concern, adjustment can be more easily postponed even if another economy might not be able to similarly increase its debt burden. Cross-country assessments of debt sustainability are generally based on rather crude instruments such as medium-term projections of public debt ratios. These projections are based on necessarily unreliable policy assumptions, and sometimes arbitrary criteria. Furthermore, they give no indication as to what is the sustainable debt level.

A more satisfactory approach has recently been proposed by Ostry et al. (2010) on the basis of earlier work by Bohn (1998) and Blanchard (1984). The idea is that each country faces a debt limit that depends on the (non-linear) reaction of the primary balance to the debt to GDP ratio and on the (non-linear) response of market interest rates to the debt level. If this debt limit is exceeded, the debt becomes unsustainable because, barring an exceptional adjustment effort, normal budgetary responses are not sufficient to prevent the debt from expanding beyond market willingness to fund it. Debt limits differ somewhat from one country to another depending in part on past the responses of the primary surplus to debt developments, which often reflects political institutions. The available fiscal space can then be defined as the distance of the current or projected debt level to the debt limit.

Figure 9 plots the fiscal space calculated by Ostry et al. (2010) for the US, the UK and selected euro area countries (we do not aggregate the euro area here because countries are separately liable for their debt. Averaging over euro area countries would amount to minimising potential problems).

Figure 9: Fiscal Space in the US, the UK and Selected Euro Area Countries



Source: Ostry et al. (2010), authors' calculations

According to this indicator the US is not better placed than countries like Ireland and Spain that are under the threat of losing access to capital markets.[16] If anything, it should move towards consolidation faster and more aggressively than a country like Spain that enjoys significantly more fiscal space – whatever the immediate market concerns or lack thereof. Of course, this does not quantify the value of the dollar's special status, and the additional fiscal space it gives to the US, but that is subject to change, and could even allow the overextension by US government that in turn erodes that status.

This indicator however depends on past behaviour only and does not take into account longer-term, mainly demographic, factors that weigh on a country's fiscal perspectives and may reduce its fiscal space further. It therefore needs to be complemented by a forward-looking approach like the one adopted by the European Commission in its annual Sustainability report (2009). The approach there relies on tax gaps à la Blanchard (1990) computed on the basis of the long-term projections carried out by the EU's Ageing Working Group (AWG). It results in two tax gap indicators called S1 and S2 which give the permanent adjustment to the primary balance necessary to reach a 60% debt-to-GDP ratio by 2060 (S1) or to meet the intertemporal budget constraint over an infinite time horizon (S2).

Equivalent indicators can be computed for the US on the basis of the CBO's long-term budget projections. This requires making a number of adjustment to ensure that assessments made for the EU countries and the US are based on sufficiently comparable assumptions. As observed by Cottarelli and Schaechter (2010), available projections in fact do not meet this requirement. Specifically and importantly, the CBO projections extrapolate trend changes in the relative price of health care services (called excess cost growth), whereas baseline EU projections are based on constant relative prices. Stripping out this relative price change and adapting to the EU framework results in considerable improvement to the relative US fiscal outlook. As indicated in Table 5 below expected ageing and its consequences on public finances only results in a 2.1 per cent of GDP tax gap for the US, against 3.5 per cent for the euro area, 3.6 per cent for the UK and 5.7 per cent for Spain.

[16] Calculations do not include the effect of the bank recapitalisation announced in Ireland in end-September 2010

Table 5: Impact of Age-Related Expenditures on the Tax Gap

	Age-related component of S2 indicator
US	2.1
Euro area	3.5
UK	3.6

Source: European Commission (2009), Bruegel calculations

The upshot is that even assuming a similar relative health care price evolution in the US and the EU, the more favourable US demographic outlook results in a lower age component of the tax gap. The 1.5 per cent of GDP difference, however, is not large enough to qualitatively change the conclusions of the previous analysis indicating that in view of its current deficit and debt level, the US has less fiscal room than apparently presumed, when assessed on a comparable long-term basis.

4. Events, politics, doctrines, or institutions? Summary of findings

Before turning to international implications and discussing the coordination issue, we would now wish to summarise our main findings. We started from the question why post-crisis policy responses have started to diverge while the crisis response was remarkably symmetric. We have identified four non-exclusive explanations.

First, economic developments in the US are in some respects more worrying than those in Europe, and warrant more aggressive policy action. While GDP has rebounded faster, the sustainability of that recovery is now in question, while employment has declined significantly more, both in absolute terms and in comparison to previous experiences. Furthermore, the extent of deleveraging that remains to be completed in the non-financial sector is without doubt more important in the US, which implies that the drag on domestic demand will remain for longer. True, euro area aggregates are of limited relevance as Southern Europe needs to deleverage while it is not clear that Northern Europe, especially Germany, will compensate through expanding domestic demand. Our assessment is nevertheless that the same policymakers approaching the situation with the same preferences would conclude that the US economy is in need of more support.

Second, political economy factors add to this objective assessment. For reasons that have to do both to its history and to its limited institutions for social protection, the US polity clearly has a lower tolerance to unemployment than European polities, including that of the UK. So the pressure to stimulate is bound to be more significant.

Third, an important source of divergence could be laid to fundamentally different beliefs about the nature of the recovery from the common shock. The US government believes that the American growth trend and potential output have not been lastingly damaged by the shock, consistent with their postwar recessionary experience; the EU governments (including the UK) believe that their economies' growth trends and aggregate supply have been severely damaged by the shock, consistent with their own past recessionary experiences. As a result, the US government and Federal Reserve officials are far more inclined to maintain aggressively expansionary macroeconomic policies than their counterparts in Brussels, the ECB and most European capitals. The difference in initial rebounds from the common crisis, with a sharper recovery and higher productivity growth in the US than in Western Europe, seems to confirm the validity of these opposing views. We believe that the actual degree of lasting damage to the US economy is higher, and to the euro area and UK economies lower,

than officials on each side of the Atlantic currently maintain. Given this fact, as we argue below, policymakers should be forced to reconsider before their divergent policies become self-fulfilling. [17]

Fourth, institutional factors play a major role as well. The absence of a central fiscal authority, the dispersion of national situations and the lack of global currency status make the euro area economies much more vulnerable to market attack for their fiscal situation than the US. This has contributed to triggering a race to consolidation that would not have happened, had the euro area relied for stabilisation on a federal budget in the same way the US does. Similarly (though to a lesser extent), the more limited institutional remit of the ECB than of the Federal Reserve contributed to the sense of reaching an end on unconventional monetary policies. The uneasy relationship between the fiscal and monetary authorities, where testing the limits has reaffirmed mutual suspicions, has also contributed to limiting the euro area central banks' margin of manoeuvre.

It should finally be added that the financial system rescue and restructuring policies also began to diverge as distance from the initial shock was felt. The false perception among policymakers in the Euro Area seemed to be that since the Anglo-Saxon type of finance was the source of crisis (a valid claim to a substantial degree), European banks were not going to suffer as much or require as much restructuring as banks in the UK or US (a false hope). Again, institutional structures limiting coordination within the euro area regarding application of banking standards or on fiscal expenditures, as well as a greater pre-crisis extent of semi- and fully public banks, reinforced this tendency to be less aggressive than the US or UK in cleaning up banks on the continent. The Spanish government's June 2010 initiative to start publishing real stress test results has led to a welcome cascade towards the top in transparency. That was insufficient, however, to bridge the gap between US-UK and Euro Area desires at the G20 level for implementation of capital and liquidity standards (with delays admittedly abetted by other G20 economies). While not strictly a macroeconomic policy issue, this difference reinforces the divergence politically and economically.

5. How transatlantic divergence matters

If the major economies in the EU and the US are in genuinely different situations – in terms of demand growth, of unemployment, of adverse supply shocks, and of fiscal space – it is not only likely, but desirable, for macroeconomic policies to differ across the Atlantic. The same to a large extent applies to the consequences of institutional constraints such as central bank mandates or budgetary frameworks, though these cannot be considered entirely given. National interests would be expected to predominate among policymakers, and arguably should. In broad terms, this is why international policy coordination has been rare. This is also why, intellectually, the bulk of analyses of policy coordination in normal conclude that beyond trying to achieve agreement on the nature of the economic challenges, policy may in the end be best served by each government doing what it thinks is best for its own economy. So why worry about divergence between the EU and US following the initial joint crisis response?

[17] We do not take the recent US economic performance at face value. We are, however, at least as dubious about the idea of an immediate sharp fall in productive capacity of the major EU economies. If the global financial crisis were to have persistent effects on growth, these should cumulate over time if the recession persists, by depreciating human capital and foregoing investment opportunities. They should not be seen as an immediate excuse for inaction, nor as having had a significant negative effect within the 4-6 quarters of outright recession in most major EU economies. Claims that structural unemployment rates doubled or potential growth rates halved overnight are hard to substantiate.

There are four reasons why macroeconomic policy divergence may still matter in the current phase more than usually. First, and most importantly, spillover effects between countries' policies, particularly through capital flows, are still not what they are in normal times. Second, there is the possibility of international commercial strife coming out of divergence during a period of austerity – that is a spiral of protectionism or competitive depreciation. Third, transatlantic divergence could exacerbate imbalances globally, not just bilaterally across the Atlantic. Fourth, there remains the risk of a self-fulfilling low-growth or even deflationary scenario that may arise through premature withdrawal of policy stimulus, which coordination could diminish.

International spillovers in post-crisis times

One surprising aspect of the crisis was the extreme degree to which all asset prices and all indices of real activity moved together. Unlike in the 1930s, which witnessed the low transmission of the depression across countries, in 2008-2009 all firms reacted almost synchronously and identically. Trade and investment collapsed simultaneously around the western world, and there was little to choose between equities or bonds across countries. The lack of benefits from diversification across the Atlantic (as opposed to the decoupling of large emerging markets) revealed the far deeper integration of western financial systems and multinational production than seen in the trade data. This had the benefit that when the recovery came in any major economy, it was in large part shared. As policy rates remained at, or close to the zero bound, and bond rates at historically low levels, positive spillovers through product markets were not hampered by negative spillovers through capital markets. This meant that the impact of any given country's policy measures was less at home and more abroad than in the past. That reality constituted a critical argument for a common stance on fiscal and monetary expansion when the crisis hit: policies moving together would have offsetting leakage abroad, and on net be far more effective.

The situation nowadays is less symmetric but demand in all advanced countries still significantly falls short of potential output, inflation is in most cases below target, policy rates are still close to zero, and risk-adjusted bond rates are even lower than two years ago. These conditions imply that product market spillovers continue dominating capital market spillovers. So what might happen in such a world when macroeconomic policies diverge? Large economies that tighten fiscal policy will have less macroeconomic multiplier from their action, as part of it spills over to trade partners; and those doing fiscal stimulus would get less bang for their policy buck. Those tightening governments, however, would previously have expected to gain on net exports by relatively constraining demand in comparison to their trading partners, and that effect would be diminished, too; the tightening country's drag on demand in the other countries would increase, while the relative contraction on demand at home would decrease. It would depend on any given economy's particular attributes and trade patterns to determine the net effect. The degree to which governments pulling in opposite directions offset each others' desired policy paths, however, definitely increases. For governments who see a need for significant additional stimulus, this could lead to a greater uphill effort to get the same effect.

Furthermore, capital flows might well amplify, rather than offset asymmetric policy moves. In normal times capital flows from tightening countries to stimulating countries as long-term interest rates respond to fiscal policy. But against a background of widespread rise of sustainability concerns, governments which loosen fiscal policy risk aggravating sustainability concerns, leading to speculations over a possible sharp depreciation of the currency as a consequence. While depreciation would usually aid in expansion, potential inflation pressures from depreciation and the likely monetary policy reaction could well swamp those benefits in the medium-term if not immediately. Meanwhile, those economies who stick to fiscal tightening could find themselves facing additional capital inflows.

Under the present circumstances when investment demand is low and financial intermediation is impeded, the likely further decline in bond rates, let alone investment expansion, is limited, so the drag from currency appreciation is likely to dominate for the relatively austere. Thus, there is a likely asymmetry whereby diverging fiscal policies will frustrate both sides of the situation: the austere governments will be put upon by competitive depreciation, while the stimulating governments will see less benefit from their efforts.

Monetary divergence will have somewhat similar effects, though they will be more in line with the standard experience than for fiscal policy. In the situation where some central banks would undertake additional ease – almost certainly in the form of large scale asset purchases – while others would be exiting monetary accommodation through interest rate increases, capital would again be expected to flow from the stimulating to the tightening currency areas. This would abet the desired impact of policy on each side, so long as monetary ease did not lead to rising long-term interest rates. That would be highly unlikely so long as the easing central banks were doing to in the face of a low inflation or deflationary forecast. The issues arising from the divergence would be the extent to which such movements led to overshooting when monetary control is limited at best, and again the likelihood that the trade effects on currency are likely to dominate the interest rate effects on investment under present circumstances.

Risks of protectionism

This scenario leads to the second concern about transatlantic divergence in macroeconomic policy: political reaction to perceived or actual competitive depreciation, and the potential for protectionism as a result. It must be noted that the amount of protectionist policies undertaken as a result of the crisis was far lower than most expected, particularly between the EU and US. The G20 agreements to prevent such actions and the role of the WTO in ensuring discipline merit praise for this success. At the time we write this paper, however, protectionist risks seem to be rising. So far, they have been more acute across the Pacific than the Atlantic (not that such a geography makes them more welcome), but the bilateral surpluses of Germany within the euro area and with the US are also gaining political salience.

If macroeconomic policy divergence meant that the major European economies would engage in budget cuts while the US embarked on another round of fiscal stimulus, and if the ECB were to withdraw accommodation while the Fed and BOE were to extend quantitative or credit easing, we could expect capital flows into euro area, particularly into those large members whose budget situations were seen as most sustainable. Already some signs that this is happening are noticeable. Such capital flows could be seen as constructive, reducing imbalances and abetting the respective desired policy stances. Whether the actual impact and political response would be taken that way is another matter.

Impact on the global adjustment

As noted, the question of current account imbalances is global, not solely or even primarily transatlantic. The third consideration for the international effects of transatlantic macroeconomic policy differences is then what impact this might have on global adjustment. This is primarily a question of currency and trade relationships with China and the economies closely tied to it. For some years, the lack of decisive Chinese action to end the undervaluation of the renminbi has benefitted from divisions between the US and EU. Whether offering contracts for Airbus and Boeing, or for power plants, or for construction materials, or for preferred access to domestic Chinese markets, the Chinese government has taken advantage of playing commercial interests in the West against each

other. This has made it more difficult to get a common front on the currency issue, on which Europe was slow to come to a common stance and to voice concerns to China. EU-US differences persisted also for long on such matters as protection of intellectual property rights for technology, even though the transatlantic economies have largely common interests in these areas.

On the pure economics, the impact on trade balances of transatlantic macroeconomic policy divergence is unclear, depending upon how the relative slowdown of the tightening countries affects trade flows versus the net export impact of the likely associated relative appreciation. Divergence in macroeconomic policies, however, is likely to worsen this political situation of division for China to exploit, as the pressure will increase for elected governments to pursue bilateral trade deals (or to wink at Chinese encroachment on property rights) and to seek direct adjustment of the bilateral exchange rate.

Self-fulfilling prophecies

The final international concern arising from divergent macroeconomic policies is of a different nature. As we discussed in earlier sections, there is genuine reason to pursue different monetary and fiscal approaches in the major economies of the euro area and the US, given the differences in terms of household balance sheets and unemployment as economic pressures, and in fiscal room and central bank mandates in terms of policy measures. These differences should not be exaggerated – the impact of the crisis on fiscal room and on potential supply lies somewhere between the stated positions on opposite sides of the Atlantic, and the deflationary pressures on both sides are not dissimilar. Yet, there remains the real possibility that past recovery patterns from non-crisis recessions or not as severe shocks are a poor predictor for what is to come now. In fact, there is arguably a risk that premature tightening or even insufficient macroeconomic stimulus could lock-in sub-potential growth for an extended period. This could be self-fulfilling in perpetuating deflationary pressures and eroding potential growth [see Posen (2010a), and references therein].

If such a risk is real, a transatlantic divergence that increases competitive pressures for near-term fiscal austerity or ratifies underestimates of potential rates of growth and current output gaps could be corrosive to long-term performance – and thus to both price stability and fiscal sustainability. Obvious transatlantic divisions in, if not public disputes over, the economic outlook and the rightness of each others' policies could erode confidence and limit the effectiveness of the policies taken, particularly in their impact on investment. In essence, the policymakers in the EU and US have to make a judgment as to the relevance of the Great Depression, of Japan's lost decade, and of the previous experience of post-financial crisis periods to today.[18] The current policy discussion, particularly in the euro area, seems to underestimate the relevance of this parallel, and thus incurs risks from pursuing policy settings as though facing a normal recovery. The lesser degree of leverage and unemployment in the major euro area economies than in the US is undeniable (though the differences in financial sector fragility are not so great), but it is not clear that is a free pass from historical precedent, especially if other economies within the euro area and across the Atlantic are at risk.

A quantum of ongoing coordination

Given our assessment of the reasons for transatlantic divergence in macroeconomic policies since the initial crisis response, we would suggest a few measures to maintain what could be termed a critical quantum of policy coordination. The point of a convoy is to get all the ships in the flotilla to their

[18] See Abiad, et al (2009), Meier (2010), Posen (2010b), and Reinhart and Reinhart (2010), among others.

destinations safely, and our economies are not yet fully out of the dangerous open waters. Moreover, the respective destinations of the euro area, UK, and US economies are not as far apart as they are sometimes claimed to be at present, so the convoy keeping us together for a little while longer is at little cost.

- The euro area, UK and US should agree not to not to intervene unilaterally against each others' currencies, making explicit what is already understood, and avoid other policies geared towards large-scale depreciation of their own currencies. This agreement could be extended to the other major economies. The monitoring of the consistency of actual policies with this commitment should be delegated to the IMF while the G20 should serve as the venue for coordination.
- Comparative assessment of the fiscal room – including of potential growth - should be assigned to an independent multilateral assessor, like the IMF. Some framework akin to that we offered above should be the basis for the assessments.
- All countries should adopt and submit to parliament medium-term fiscal consolidation objectives and guidelines that ensure the sustainability of public finances under prudent economic assumptions. In practice, this would mostly imply adjustment on the US side.
- The EU and US should agree that the Chinese undervaluation problem has to be dealt with in a multilateral framework but commit to undertaking joint action under the terms of such a framework, and thereby limit the ability of the PRC government to play each off against the other for commercial gain

We have little illusion, however, that these measures will be adopted in the near term. We rather fear that the longer that policies diverge across the Atlantic, the more justified each policy stance will seem to their originators.

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