II. The policy mix, when monetary policy is constrained at the zero lower bound

The scope of macroeconomic policy making in the euro area is being intensely debated. Decision makers confront the challenge of a persistently slow and fragile economic recovery where policy efforts are unequally distributed across available instruments. Aggregate demand growth remains sluggish and inflation well below target despite the fact that monetary policy rates are at the zero lower bound (ZLB) and that the European Central Bank has employed a wide range of conventional and unconventional policy measures. At the same time, national fiscal policies are expected to stay within the perimeters of commonly agreed EU rules, namely the Stability and Growth Pact, while progress with structural reforms could be accelerated.

This section analyses the macroeconomic policy mix of the euro area at the current juncture. It first reviews the monetary policy stance by looking at two measures in the context of a low demand and low-inflation environment keeping in mind the degree of uncertainty of such an exercise: the shadow policy rate, which is the theoretical negative rate that would prevail if there were no lower bound on interest rates; and the equilibrium interest rate, the real rate at which inflation would be stable. Second, it takes a look at fiscal policy making by focusing on both the stance of the euro area as a whole and differences between Member States. The section concludes with an overall assessment of the macroeconomic policy mix.

Our analysis suggests that while equilibrium interest rates experienced a significant decline in recent years, the current monetary policy stance of the ECB as measured by shadow rates appears to be very accommodative. However, monetary policy has already provided considerable support and cannot carry the full burden of the policy effort nor address country-specific issues. Consequently, there is a need to pay more attention to fiscal policy in terms of both its aggregate stance and its composition and use in different euro area countries, naturally within the limits of the Stability and Growth Pact. ([57])

II.1. Introduction

Ever since Keynes' exegetes formalised the macro model which would become the main reference for generations of economists and policy makers, fiscal and monetary policy have been used to respond to changes in aggregate economic activity in the short term. While faith in the ability of policy makers to effectively manage aggregate demand has evolved – because our understanding of how the economy and politics work has evolved – fiscal and monetary policy remain the two canonical instruments for economic stabilisation. What has changed with time is the way the two instruments are deployed. The early approach of fine tuning fiscal and monetary policies with the greatest possible degree of discretion, has given way to a framework where monetary and fiscal policy are assigned specific mandates which are expected to be implemented independently towards the common goal of macroeconomic stability. This is also the case in the euro area: monetary policy has been delegated to the ECB with a strong mandate to achieve price stability, while fiscal policy remains under the purview of national governments, subject to commonly agreed fiscal rules.

In the last couple of years, the euro area has experienced a very sluggish pace of economic recovery with average growth rates falling well behind those recorded in the US plus a persisting and still significant amount of economic slack. Inflation remains well below target and aggregate demand, especially investment, remain weak. The ECB has pushed policy rates to the zero lower bound (ZLB) and launched a whole series of unconventional measures, mainly balance sheet policies, while fiscal policy is caught between limited fiscal space in some Member States (as a legacy of the crisis) and a strong preference for tight budgets in others (e.g. due to ageing challenges, perception of hidden liabilities).

Against this background, the question has been raised of whether the prevailing governance framework of the euro area can deliver a policy mix that provides sufficient support to aggregate economic activity while preserving stability.

([57]) The section was prepared by Nicolas Carnot, Ulrich Clemens, Martin Larch and Bořek Vašíček.

The remainder of this section is divided into four parts aimed at offering a reasoned analysis of the macroeconomic policy mix in the euro area. Section II.2 and II.3 provide an in-depth review of monetary and fiscal policy respectively, while Section II.4 examines the way monetary and fiscal policy interact in the current governance framework. Section II.5 concludes.

II.2. Monetary policy stance at the zero lower bound

Measuring the monetary stance

Traditionally, the most important indicator for a central bank's monetary policy stance is the nominal rate charged on its main refinancing operations. This rate is typically assessed against historical or normative benchmarks to gauge the appropriateness of the level of monetary policy accommodation. In the past several years, however, the convergence of policy rates towards the ZLB, alongside the adoption of unconventional measures targeting the longer end of the yield curve (such as large scale asset purchases or forward guidance), have affected the merits of nominal policy rates as summary indicators of the monetary policy stance.

As a consequence, alternative measures to capture the monetary policy stance in the presence of the lower bound have been put forward. Most prominently, so-called shadow short rates (SSRs) derived from term-structure models have been used to quantify the monetary stimulus implied by measures beyond variations of the policy rates. The shadow policy rate, or shadow short rate, represents the interest rate that would prevail in a hypothetical world where economic agents cannot turn to cash at the ZLB, thereby enabling interest rates to fall arbitrarily deep into negative territory.([58]) It is computed by estimating the price of this 'cash option' and subtracting it from the observable short-term rate, which is truncated at the ZLB.([59])

([58]) The existence of transaction and storage costs of cash holdings might explain the fact that the actual lower bound is below zero, such that depositors would accept negative rates to a certain extent.

([59]) Black, F. (1995), 'Interest rates as options', Journal of Finance, Vol. 50, Issue 5, pp. 1371-1376.
Krippner, L. (2012), 'Modifying Gaussian term structure models when interest rates are near the zero lower bound', Reserve Bank of New Zealand Discussion Paper, No. 2012/2.

The monetary policy stance is accommodative

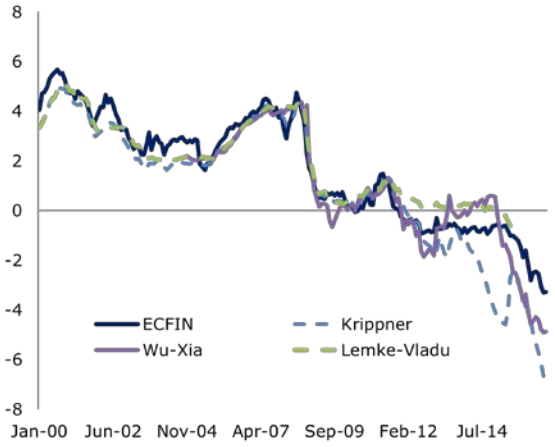
Graph II.1 shows estimates of the shadow short rate for the euro area obtained from different modelling approaches suggested in the literature. ([60]) Up to mid-2012, the estimated shadow rates follow a relatively homogeneous path, which seems consistent with ECB decisions. From October 2008, when the ECB started a rate cutting cycle and introduced a first set of non-standard measures to dampen the impact of the global financial crisis, including the fixed-rate full-allotment mode for its refinancing operations, the shadow short rates follow a steep downward trend up to May 2009. They then capture the temporary tightening of monetary policy in the first half of 2011 before declining into negative territory in late 2011, as a new rate cutting cycle was launched and the ECB announced two three-year long-term refinancing operations (LTROs) in December 2011. The estimates, however, show some heterogeneity from mid-2012 onwards, reflecting in particular the varying extent to which the different estimates incorporate the effects of the ECB's forward guidance as well as the LTRO repayments, before following a common steep downward trend with the start of the Extended Asset Purchase Programme (EAPP) in March 2015.

At the same time, Graph II.1 also illustrates one of the major drawbacks of the SSR concept. While the SSR intuitively extends the concept of the policy rate beyond the ZLB, opening up to the possibility

([60]) Wu, J. C. and F. D. Xia (2014), 'Measuring the macroeconomic impact of monetary policy at the zero lower bound', Journal of Money, Credit and Banking, Vol. 48, Issue 2-3 pp. 253–291.
Krippner, L. (2016), 'Documentation for measures of monetary policy', Reserve Bank of New Zealand, available at http://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Research/Additional%20research/Leo%20Krippner/5892888.pdf?la=en
ECFIN estimates are calculated according to Krippner's (2016) two-factor arbitrage-free Nelson Siegel yield curve model (K-ANSM model). Although the ECB deposit facility rate currently stands at -0.40%, as a working assumption, it was chosen to calibrate the K-ANSM (2) model for the Euro Area using -0.50% as the fixed lower bound, representing market expectations regarding a further rate cut in the future. This compares to a positive 0.125% fixed lower bound used in Krippner's model calibration as shown in Graph II.1, which results in a significantly more negative shadow rate. Furthermore, ECFIN estimates are calibrated exclusively to the OIS curve as to avoid any undue distortion to calibration results caused by the combination of OIS and government bond rates as is done in Krippner (2016).
Lemke and Vladu (2016) provide an extension of the shadow rate concept to the whole term structure.
Lemke, W. and A. Vladu (2016), 'Below the zero lower bound - a shadow-rate term structure model for the euro area', Deutsche Bundesbank Working Paper, No. 32/2016.

of assessing monetary policy through time on the basis of one familiar gauge, some words of caution are in order. First, the estimated level is very model-sensitive, reflecting the number of factors included in the model, the assumed or endogenously estimated lower bound, the estimation method and the maturity spectrum included in the estimations.

Graph II.1: **Alternative shadow rate estimates**
(Jan 2000 – Aug 2016, %)



Source: ECFIN estimates are by U. Clemens and E. McCoy modifying Krippner (2013), Krippner (2013), Wu and Xia (2016), Lemke and Vladu (2015).

Second, since the SSR model is calibrated to the Overnight Indexed Swap (OIS) curve, the derived shadow rate will inevitably reflect market expectations of nominal short-term interest rates. However, many factors other than policy changes may affect such expectations, including changes in short-run market sentiments and longer-term growth prospects. As a result, the SSR is likely to be a noisy indicator of the policy stance, especially in times of heightened market volatility and uncertainty concerning growth prospects.

Graph II.1 shows that the SSR is estimated to be negative since 2015. However, it is important to stress that this is a non-observed variable whose calculation is surrounded by uncertainty and dependent on technical details. It would be inappropriate therefore to jump to firm conclusions regarding the monetary policy stance on the basis of the SSR.

Keeping the uncertainty surrounding the estimated level of SSRs in mind, Graph II.1 shows that most measures including estimates produced by DG ECFIN seem to suggest a considerable degree of monetary easing over the past years, in particular following the introduction of the Public Sector Purchase Programme (PSPP) in 2015.

The equilibrium interest rates are declining

While policy rates and shadow short rates provide some intuition of how the monetary policy stance has evolved *over time*, to evaluate its degree of accommodation *at a given moment*, some benchmark is needed. Besides historical comparisons (which might not always be appropriate) and normative benchmarks such as the Taylor rule (which are model sensitive),([61]) a simple albeit economically intuitive approach is to compare the *real ex-ante* interest rate (i.e. the short-term rate adjusted for expected inflation) with the equilibrium or natural rate of interest. The equilibrium rate - a concept introduced by Wicksell in the 1930s - regained popularity since policy rates replaced monetary aggregates as an intermediate policy target under the inflation targeting regime.([62]) The equilibrium rate is usually understood as a real rate equating supply and demand of loanable funds, and it is consistent with output at potential and stable inflation. It is determined by structural factors of the economy, such as potential growth, and its value is independent of monetary policy, which uses the equilibrium rate as a reference value. Therefore, if the actual real interest rate is lower than equilibrium rate, the monetary policy stance is considered expansionary. Conversely, if the actual interest rate is higher than the equilibrium rate, the monetary policy stance is considered contractionary.

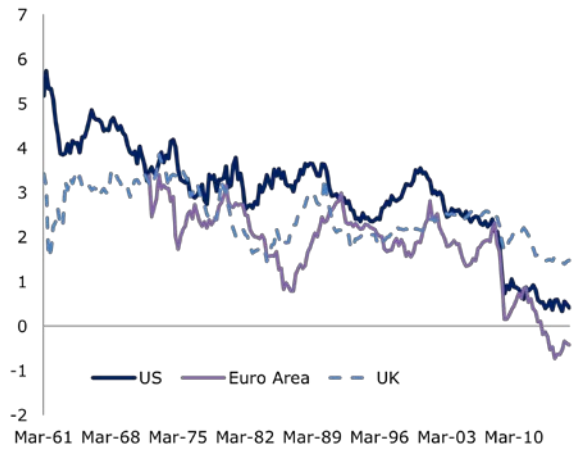
([61]) When the policy rates are not constrained by the ZLB, the Taylor rule, which prescribes the optimal policy rate with regard to developments in inflation (expectations) and output, is often used as such benchmark. However, the weights on the respective determinants are somewhat arbitrary, and the choice of variables (e.g. expected vs realized inflation, output gap vs output growth) is subject to debate. The Taylor rule cannot be directly used neither as prescription for not as a description of monetary policy at the ZLB. Belke and Klose (2013) propose a modification of the Taylor rule for the ZLB environment assuming that real rather than nominal interest rates is targeted by the central bank.
Belke, A. and J. Klose (2013), 'Modifying Taylor reaction functions in the presence of the zero-lower-bound - Evidence for the ECB and the Fed', Economic Modelling, Vol. 35, pp. 515-527.

([62]) Wicksell, K. (1936), 'Interest and Prices', MacMillan, London.
Woodford, M. (2003) 'Interest and Prices: Foundations of a Theory of Monetary Policy', Princeton University Press, Princeton N.J..
Svensson, L.E.O. and M. Woodford (2004), 'Implementing optimal policy through inflation-forecast targeting', In: The inflation-targeting debate. University of Chicago Press, pp. 19-92.

Like the shadow short rate, the equilibrium rate of interest is not directly observable; it must be estimated and is subject to model uncertainty. Moreover, as the structural characteristics of an economy evolve over time, the equilibrium rate will change, adding another layer of uncertainty to the assessment of the monetary policy stance, especially in real time. Finally, there is some ambiguity regarding the maturity of the equilibrium rate. While the original Wicksellian logic deems it to be a long-term concept, its use in policy discussions (benchmark for short-term policy rates) as well as common estimation methods implicitly treat it as a short-term concept. ([63])

Most available estimates indicate that equilibrium rates have followed a declining trend which accentuated in the wake of the global financial crisis. Graph II.2 indicates a drop from 3-4% in 1980s to around 0% in recent years or even negative values in the euro area.([64]) Several factors are believed to drive the trend: a general slowdown in productivity growth, declining investment ratios, demographic aging, changes in financial regulation, and global developments including demographic changes and an increase in inequality.([65])

Graph II.2: **Equilibrium real interest rate estimates**
(1961Q1 – 2015Q4, %)



Source: Holston, S., T. Laubach and J. Williams (2016), 'Measuring Natural Rate of Interest - International Trends and Determinants', Federal Reserve Bank of San Francisco Working Paper, No. 2016-11.

The use of equilibrium interest rates as a reference value is not straightforward at the ZLB when monetary policy turns to unconventional measures. In the absence of the ZLB, the policy rate broadly corresponds to the short-term financing costs faced by economic agents and thus can be compared to the equilibrium rate. In times when the ZLB is binding, economic agents are facing short-term rates at the ZLB, while the hypothetical shadow short rate representing the central bank's policy stance might decrease deeper into negative territory. Hence, a dichotomy appears between alternative measures of the policy stance such as the shadow rate, which is constructed to overcome the ZLB, and the fact that interest rates relevant for economic decisions, namely the lending rates, are still subject to the ZLB. The shadow rate may be estimated with too much uncertainty to be directly comparable to the (also uncertain) equilibrium interest rate. However, one can evaluate the relative dynamics of these two variables, specifically the relative decline in the estimated equilibrium rate of interest vis-à-vis the relative decline in the estimated shadow rate. A comparison of Graphs II.1 and II.2 suggests that while the equilibrium rate of interest declined since the global financial crisis, the shadow short rate as an implicit measure of the policy rate declined too.

([63]) Laubach and Williams (2003) provide arguably the most popular empirical approach for the equilibrium interest rate estimation.
Laubach, T. and J. Williams. (2003), 'Measuring the natural rate of interest', Review of Economics and Statistics, Vol. 85, No. 4, pp. 1063-1070.
Brzoza-Brzezina and Kotlowski (2014) and Imakubo et al. (2015) generalize the concept of natural rate of interest to the natural yield curve to provide natural values for the whole term structure, which might be useful when the central banks uses nonconventional measures that aim to affect direcntly the long-term maturities.
Brzoza-Brzezina, M. and J. Kotlowski, J. (2014), 'Measuring the natural yield curve', Applied Economics, Vol. 46, Issue 17, pp. 2052-2065.
Imakubo, K., H. Kojima and J. Nakajima (2015), 'The natural yield curve: its concept and measurement', Bank of Japan Working Paper, No. 15-E-5.

([64]) This finding has been confirmed for the US by a range of different estimation methods. See for example:
Barsky, R., A. Justiniano and L. Melosi (2014), 'The Natural Rate of Interest and Its Usefulness for Monetary Policy', American Economic Review: Papers & Proceedings, Vol. 104, No. 5, pp. 37–43.
Curdia, V., A. Ferrero, G. C. Ng and A. Tambalotti (2015), 'Has U.S. Monetary Policy Tracked the Efficient Interest Rate?', Journal of Monetary Economics, Vol. 70(C), pp. 72-83.
Laubach, T. and J. Williams (2016), 'Measuring the Natural Rate of Interest Redux'. Board of Governors of the Federal Reserve System, Finance and Economics Discussion Series, No. 2016-011.

([65]) IMF (2014), 'Perspective on Global Real Interest Rates', Chapter 3 in World Economic Outlook (April).
Hamilton, J.D., E. E. Harris, J. Hatzius and K. D. West (2015), 'The Equilibrium Real Funds Rate: Past, Present, and Future', Presented at the US Monetary Policy Forum, New York, February 27, 2015.
Rachel, L. and T. D. Smith (2015), 'Secular drivers of the global real interest rate', Bank of England, Staff Working Paper, No. 571.

Inflation remains below target

Despite substantial monetary easing, which has clearly had an effect at the early stages of the transmission mechanism as evidenced by both lower interest rates and a pick-up in credit provision to the private sector, headline inflation in the euro area (measured by HICP) has remained close to zero since the beginning of 2015. Also, core inflation - the annual rate of change of the HICP excluding volatile energy and unprocessed food - has hovered below 1% since 2014.

Following the observation that national Phillips curves have flattened in recent decades (i.e. that inflation has become less connected to the degree of domestic economic slack), several empirical studies have argued that an important part of inflation dynamics can be explained by international or even global factors rather than domestic developments, which may constrain the effectiveness of monetary policy. ([66]) However, while recent inflation trends in the euro area may in part be driven by exogenous forces they can still affect inflation expectations in the euro area and in turn the expected real interest rate.

Overall, monetary policy has delivered a substantial amount of stimulus to the euro area economy in the past several years, without which outcomes would have been considerably worse. At the same time, given the nature of current macroeconomic developments, monetary policy cannot shoulder stabilisation alone. Other macroeconomic policies matter as well.

II.3. Fiscal policy stance

Measuring the fiscal stance

The fiscal stance is a notion with no universally accepted definition but a broadly shared understanding within the economic community. Usually, the fiscal stance refers to the orientation that is given to fiscal policy by discretionary decisions on tax and spending, as opposed to the endogenous response of the economy.

While the fiscal stance is an intuitive notion, its empirical characterisation is a more open question. ([67]) Traditionally, the fiscal stance is captured by the change in the structural balance, or the change in the structural primary balance. In practice, both indicators are known to include a measurable degree of noise owing in particular to uncertainties over potential output and the size of budgetary elasticities. ([68])

An alternative and arguably more faithful indication of the actual policy stance is given by the so called discretionary fiscal effort (DFE).([69]) This indicator focuses on the budgetary impact of new measures on the revenue side, and on the growth of discretionary spending relative to trend on the expenditure side. While the DFE raises measurement issues of its own, including for estimating new tax measures, it is considered to be a more robust gauge of the short-term impact on aggregate demand than the change in the structural (primary) balance.

In this perspective, fiscal policy is qualified as restrictive when the DFE is positive, expansionary when negative, and neutral when close to zero. The fiscal stance is thus regarded as neutral when discretionary government expenditures expand at a pace in line with medium-term growth and no new tax measures are taken in net terms, or more generally, when the gap between expenditure growth and potential growth equals the overall net amount of new tax measures.

([66]) See for example: Ciccarelli, M. and B. Mojon (2010), 'Global inflation', The Review of Economics and Statistics, Vol. 92, No. 3, pp. 524–535.
Mumtaz, H. and Surico, P. (2012), 'Evolving international inflation dynamics: World and country-specific factors', Journal of the European Economic Association, Vol. 10, Issue 4, pp. 716–734.

([67]) Blanchard (1990) offers a well-known discussion of fiscal indicators, including indicators of the discretionary part of fiscal policy.
Blanchard, O. J. (1990), 'Suggestions for a New Set of Fiscal Indicators', OECD Economics Department Working Papers, No. 79.

([68]) The structural balance removes from the headline balance the effect of the economic cycle, based on an evaluation of potential output and the response of the public finances to the output gap, as well as net of one off and other temporary measures. For a presentation, see Larch and Turrini (2010) and Mourre et al. (2013).
Larch, M. and A. Turrini (2010), 'The cyclically-adjusted Budget balance in EU fiscal policy making: A love at first sight turned into a mature relationship', Intereconomics, Vol. 45, Issue 1, pp. 48-60.
Mourre, G., G.-M. Isbasoiu, D. Paternoster and M. Salto (2013), 'The cyclically-adjusted budget balance used in the EU fiscal framework: an update', European Economy, Economic Paper, No. 478.

([69]) DG ECFIN (2013), 'Report on Public Finances in EMU', European Economy, No. 4/2013.
Carnot, N. and F. de Castro (2015), 'The discretionary fiscal effort: An assessment of fiscal policy and its output effect', Hacienda publica espanola / Review of public economics, 215-(4/2015), pp.63-94.

The above considerations focus solely on the first round effects of fiscal policy on aggregate demand, leaving aside other important concerns such as the medium to long-term impact on demand or supply side effects. The overall impact on demand is a function of the fiscal multiplier, which is known to be country- and time-dependent, and sensitive to the type of discretionary fiscal measure.([70]) Therefore, a given fiscal stance as measured by the DFE will not always exert the same traction on output, given variations in circumstances and composition. Finally, time lags should be acknowledged too: the effect of fiscal policy in a given year combines the immediate effect of current policy with the incremental lagged effect of prior policies.

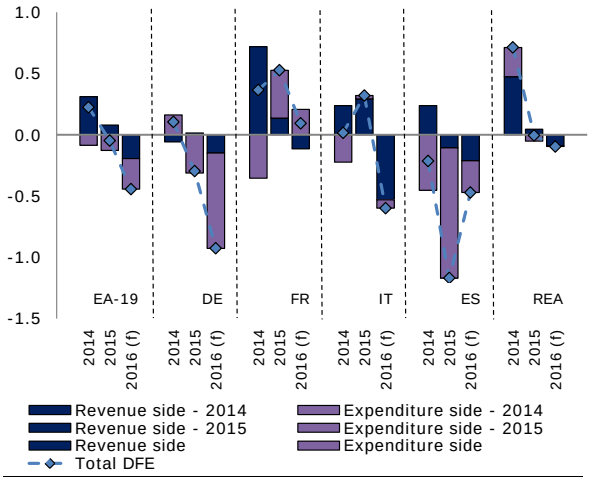
Analysing the recent fiscal stance

Following considerable retrenchment over 2011-2013, the euro area fiscal stance has on average been broadly neutral since 2014. Fiscal policy remained slightly restrictive in 2014, was neutral in 2015, and is expected to turn modestly expansionary this year (Graph II.3). This follows a cumulated consolidation of 3½ % of GDP over 2011-2013. ([71])

In terms of country contributions, Germany recently moved to an expansionary stance and contributes the major part of the projected fiscal easing in 2016, with Italy also easing this year along with continued loosening in Spain over the past three years. France pursued moderate consolidation in the recent past.

The characterisation of the fiscal stance as mildly expansionary this year should be put into perspective in three important respects. First, it follows considerable consolidation efforts earlier on. Second, the characterisation results in part from unusually low inflation and weak potential growth in the post-crisis environment which both lower the benchmark discriminating between an expansionary and restrictive stance. Third, headline balances are projected to continue falling (area-wide by about 0.2% of GDP in 2016) as automatic stabilisers moderate with the economic recovery.

Graph II.3: **Discretionary fiscal effort (1)**
(2014 – 2016, % of GDP)



(1) (f) indicates forecasts. REA stands for rest of euro area.
Source: Commission services spring 2016 forecast, DG ECFIN calculations.

In terms of composition, the recent move towards an easier stance reflects both a reversal from tax hikes to tax cuts and faster spending (Graph II.3 and Table II.1). While there were still a few tax increases in 2014-2015, including on taxes on consumption, policies on the revenue side are being loosened in 2016. This involves cuts in labour taxes and social contributions in many countries (including the four largest ones), and more residually lower corporate taxes as well as the removal of a property tax in Italy. Public spending is gathering moderate pace in the euro area, expanding overall by about 2½ in 2016 in nominal terms, against below 2% in 2014 and about 2¼ % in 2015. Because these figures are a bit higher than nominal medium-term growth (2.0% in 2016), this translates into a slight expansion according to the DFE indicator. However, as indicated above, the 'benchmark' nominal growth rates used in the EU fiscal framework reflect unusually low inflation rates and the weakness of potential growth estimates, which still incorporate lagged effects from the crisis. ([72])

([70]) For a comprehensive discussion see Batini, N., L. Eyraud, L. Forni and A. Weber (2014), 'Fiscal multipliers: size, determinants and use in macroeconomic projects', Technical notes and manuals, IMF Fiscal Affairs Department. See also in't Veld J. (2013), Fiscal consolidations and spillovers in the euro area periphery and core, European Economy, Economic Paper, No. 506.

([71]) The fiscal stance is appraised with the DFE but the overall conclusions since 2014 would not be very different using the change in the structural primary balance. The DFE is estimated at 0.2%, 0,0% and -0,4% of GDP in 2014, 2015 and 2016 respectively.

([72]) The benchmark growth rate is a 10-year broadly centred average of potential growth.

Table II.1: **Expenditure dynamics and medium-term potential GDP growth (1)**
(2014 – 2016, y-o-y % change)

	EA-19			DE			FR			IT			ES			REA		
	2014	2015	2016(f)	2014	2015	2016(f)	2014	2015	2016(f)	2014	2015	2016(f)	2014	2015	2016(f)	2014	2015	2016(f)
Discretionary expenditure growth (nominal)	1.8	2.3	2.6	2.6	4.2	5.1	2.2	1.5	1.6	1.0	0.5	0.9	1.0	3.7	1.8	1.2	2.0	2.3
Medium-term potential growth (nominal)	1.6	2.0	2.0	3.0	3.4	3.1	1.5	2.2	2.0	0.5	0.5	0.7	-0.2	0.8	1.1	1.5	2.0	2.1
of which:																		
medium-term potential growth (real)	*0.7*	*0.7*	*0.8*	*1.3*	*1.3*	*1.3*	*1.0*	*1.0*	*1.0*	*-0.3*	*-0.2*	*-0.1*	*0.2*	*0.2*	*0.2*	*0.8*	*0.9*	*1.0*
GDP deflator	*0.9*	*1.3*	*1.2*	*1.7*	*2.1*	*1.8*	*0.6*	*1.2*	*1.0*	*0.8*	*0.8*	*0.8*	*-0.4*	*0.6*	*0.9*	*0.7*	*1.1*	*1.1*

(1) Discretionary expenditure is total government expenditure net of one-offs, interest payments and non-discretionary unemployment expenditure.
Source: Commission services spring 2016 forecast, DG ECFIN calculations.

A key underlying question is what could be taken as the 'new normal' for euro area medium-term growth. A more sanguine assumption than that presented in Table II.1 would have medium-term real growth in the range of 1.0-1.5%, where the upper end of the range could correspond to a scenario of substantial structural reforms. With inflation getting back over time to the ECB's target, this would lead to an estimate of the new normal for nominal growth at 3.0-3.5% for the euro area average. This is higher than the current growth of 2½ % of primary spending but not by much, especially if one considers the more prudent lower end of the range.

On the whole, although picking up moderately, public spending dynamics appear to remain under control in an historical perspective, particularly in France and Italy (in Spain, moderate growth in 2016 is expected to follow clear expansion in 2015). The major contributor to firmer expenditure is Germany, where discretionary spending is expected to rise by about 5% this year in nominal terms, boosted notably by refugee-related spending.

Prospectively analysing the fiscal stance

This sub-section turns to the prospective analysis of the fiscal stance with the example of the forthcoming budgets for 2017. Fiscal policy faces several objectives. At the macroeconomic level, those include long-term sustainability and short-term stabilisation, both from the national and the euro area perspectives. ([73]) Evaluating the appropriate fiscal stance can rely on a balanced assessment of these two dimensions. Accordingly, the sustainability and stabilisation challenges can be captured summarily on a 'fiscal map' (Graph II.4). This should nevertheless be seen as a first pass, as other considerations beyond those portrayed on the fiscal map, such as monetary conditions, are relevant for evaluating the fiscal stance. ([74]) ([75])

On the fiscal map, sustainability requirements are evaluated based on the so-called S1 indicator which is built around the 60% of GDP reference value of

([73]) Musgrave (1959) classically describes three functions of fiscal policy: allocation, redistribution and stabilisation. Sustainability is strictly speaking more a constraint than an objective. The two macroeconomic dimensions of sustainability and stabilisation are highlighted in IMF (2013) and OECD (2015), among others.
Musgrave, R. A. (1959), 'The Theory of Public Finance: A Study in Public Economy', McGraw-Hill, New York.
IMF (2013), 'Reassessing the role and modalities of fiscal policy in advanced economies', IMF Policy Paper, September.
OECD (2015), Fall F., D. Bloch, J.-M. Fournier and P. Hoeller, 'Prudent debt targets and fiscal frameworks', OECD Economic Policy Papers, No. 15.

([74]) The twin consideration of sustainability and stabilisation for designing macro-fiscal policy is explored conceptually and empirically in Carnot (2014), which proposes a 'rule of thumb' weighing both objectives. In general terms, this approach is followed in DG ECFIN (2015) as well as in ECB (2016).
Carnot, N. (2014), 'Evaluating fiscal policy in EMU: A rule of thumb', European Economy, Economic Papers, No. 526.
DG ECFIN (2015), 'Report on Public Finances in EMU', European Economy, Institutional Papers, No. 14/2015.
ECB (2016), 'The euro area fiscal stance', ECB Economic Bulletin, Issue 4/2016.

([75]) Another aspect that is relevant but not captured by the fiscal map relates to the fact that the effectiveness of fiscal easing for stabilisation purposes in countries with fiscal space also depends on the size of spill-over effects (some have argued that these are small; others have argued that these are larger especially at the ZLB).

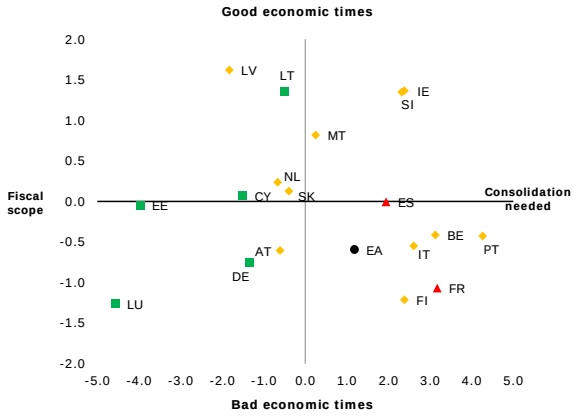
government debt laid down in the Stability and Growth Pact. (76) The cyclical position is summarised by the projected output gap in 2017 under the assumption of a neutral fiscal policy in 2017. The resulting output gap thus combines information on the level of slack and the spontaneous growth momentum, irrespective of fiscal interventions. (77) These indicators should be seen as a first pass only, to be cross-checked by complementary indicators.

For the euro area as a whole, the fiscal map would point to a current trade-off between sustainability and stabilisation needs. The euro area appears to be located in the 'South-East quadrant' of the map where such a trade-off is at play. It reflects the maintenance, despite earlier consolidation, of a residual adjustment gap vis-à-vis a trajectory putting the debt on a firm downward path for the future, in conjunction with the persistence of a significant degree of economic slack, albeit a gradually narrowing one. This conclusion is qualitatively robust to the choice of alternative indicators to build the map, though precise magnitudes may differ.

A responsible fiscal policy needs to balance the two objectives of sustainability and stabilisation. There is a need to reduce existing levels of national debt and re-build fiscal buffers. A prudent approach to debt reduction in some euro area Member States would especially be warranted in order to be able to absorb the risk of new shocks. At the same time, the recovery remains slow and fragile with only a gradual decline in unemployment, while, as highlighted above, inflation remains persistently low. Moreover, the current account of the euro area is largely positive (at around 3½ % of GDP), suggesting room for expanding domestic demand relative to the global economy.

The fiscal map also highlights the marked differences between countries. First of all, the position of the euro area aggregate seems to be heavily influenced by France and Italy, two of the largest participating Member States. They both appear to face important consolidation needs against the backdrop of significant cyclical slack. Spain is deemed to have still substantial consolidation needs while being close to neutrality in terms of the cycle. Nevertheless, the latter evaluation is, again and notably so for Spain, quite sensitive to the precise choice of the output gap estimate.

Graph II.4: **Fiscal map: Sustainability and stabilisation challenges (1)**
(2017, % of GDP)



(1) In this graph, sustainability needs (horizontal axis) are represented by the S1 indicator. A positive S1 indicates that consolidation is needed to ensure sustainability, while a negative S1 indicates that there is some scope for fiscal expansion without putting sustainability at risk. Stabilisation needs (vertical axis) are represented by the expected level for the output gap in 2017 assuming a neutral fiscal stance in 2017 (i.e. no change in the structural primary balance). A positive (negative) output gap denotes good (bad) economic times. When the output gap is not larger than +/- 0.5 % of GDP, it is considered to be broadly closed. The markers indicate the expected situation of each Member State under the SGP at the beginning of 2017: green squares = at or above MTO, orange diamonds = in the preventive arm not yet at MTO, red triangles = in the corrective arm.
Source: DG ECFIN calculations.

Meanwhile, a few Member States, most prominently Germany, would appear to have both a degree of fiscal scope (in the sense that their debt is low or being very rapidly reduced) and some stabilisation needs. Germany's stabilisation needs may be relatively modest, with both demand and potential output raised by the inflow of refugees. (78) This indicates a situation involving no

(76) The S1 indicator measures the change in the structural primary balance (SPB) required over the next 5 years to bring general government debt to the reference threshold of 60 % of GDP in 2030. See DG ECFIN (2016), Fiscal sustainability report 2015', European Economy, Institutional Papers, No. 18/2016.

(77) Technically, the output gap expected for 2017 in the Commission forecast is adjusted for the impact of the projected change in the structural primary balance multiplied by an assumed uniform fiscal multiplier of 0.8.

(78) A caveat also appears in order concerning the large fiscal scope identified by the S1 indicator for Luxembourg and Estonia, which derives from an assumption of convergence of public debt to 60% by 2030. The robustness analysis suggests that these countries do have fiscal scope, but arguably not to the extent suggested by S1. The impact of the refugee influx on German potential output is based on the assumption on how fast the refugees that have arrived mostly in 2015 will enter the labour market. Specifically, the impact on potential growth becomes more drawn out and lasts in 2017.

major trade-off from the economic perspective of the euro area as a whole, as the existing fiscal scope in Germany could be mobilised to support the economy, especially by investing in long-term growth notably by fostering investment.

At the same time, the fiscal map also indicates that the latest policy plans could be improved upon in some countries. In particular, plans that are tilted towards the stabilisation objective in large countries, including Italy, Spain and to a lesser extent France, could be rebalanced towards more consolidation.

II.4. Euro area policy mix at the zero lower bound– status quo and options

In spite of the many improvements to the governance framework ushered in by the post 2007-crises, the elements governing the interaction of different macroeconomic policy instruments in the euro area still reflect the original Maastricht blueprint of the late 1980s and early 1990s. The blueprint was predicated on the prevailing understanding in mainstream macroeconomics at the time that policies should not be mixed. ([79]) The implied division of labour is hardwired into the framework: in pursuing its price stability mandate the ECB also takes account of economic slack as one driver of inflation, thus taking care of common demand shocks in the euro area, while country-specific shocks are smoothed by automatic stabilisers the size of which mirrors national preferences for the degree of shock absorption.([80]) In this system, there is in principle no need to coordinate macroeconomic policies, as long as respective mandates and rules are respected, namely the Stability and Growth Pact.

It is probably fair to say that when the Maastricht assignments were conceived with the objective of containing historic deficit and inflation biases, no one anticipated the type of macroeconomic predicaments the euro area is facing today. A situation where the monetary policy rate required to stabilise euro area inflation and would be negative was not anticipated. Also, few expected economic developments to diverge so much across euro area countries, including the capacity to let automatic stabilisers play. The ZLB to conventional monetary policy making and the asymmetric nature of the fiscal rules ([81]) impose constraints on the current governance framework to deliver the appropriate policy mix.

The ECB, like other central banks in advanced economies, has deployed unconventional measures on a large scale. At the same time, fiscal policy is offering at best limited support, reflecting both its largely decentralised nature and the delicate trade-offs it is confronted with because the fiscal space has already been expanded in several Member States, and sustainability concerns kick-in, or it is not being used fully where available. ([82]) As a result, aggregate demand remains sluggish, and inflation well below target, which, in turn, makes the adjustment of wages and prices in countries with adjustment needs much more difficult. The perceived limits on monetary policy are turning the attention to both structural reforms and fiscal policy. These may speed up the return towards more standard conditions and a normalisation of the monetary and financial environment.

Structural reforms are necessary to remove rigidities and to improve adjustment capacity of some euro area Member States. This is pressing also because productivity and potential growth in the euro area suffered significantly during the crisis. Structural reforms are not only needed in the resilience context but they play an important role in the policy mix. While many such reforms do not impact positively on aggregate demand in the short run, they generally boost growth in the medium and long run. ([83]) Consequently, in the short-term there is an important role for fiscal policy, especially at the ZLB where the available evidence suggests higher fiscal multipliers ([84]). One

([79]) For a discussion see Dixit, A. and L. Lambertini (2001), 'Monetary and fiscal policy interactions and commitment versus discretion in a monetary union', European Economic Review, 45 (2001), pp. 977-987.

([80]) The constraints imposed on discretionary fiscal policy are asymmetric: they essentially require countries to pursue discretionary fiscal adjustments until a sustainable position is reached, yet do not compel countries to use fiscal space if available.

([81]) They are prescriptive only as regards the reduction of structural deficits, not surpluses.

([82]) Moreover, government investment expenditure, which has been constrained during the consolidation efforts in the post-crisis years, remains compressed, including in Member States with fiscal space, resulting in weaker short-term demand but also in lower medium-term supply and potential growth.

([83]) This makes a case for a "careful prioritization and sequencing of reforms" in synchronization with cyclical conditions. See for example: Chapter 3 of the April 2016 IMF World Economic Outlook.

([84]) Christiano et al. (2009) produced a seminal contribution on the subject.

promising approach is to strengthen the role of automatic stabilizers (that require no discretion) through the economic cycle. ([85]) Another avenue that has already been pursued is to make the best use of the flexibility embedded in the EU fiscal rules. ([86]) At the same time, it is important to recognize that in the absence of a fiscal stabilization function, there is no in-built mechanism at the EU level to deliver a fiscal stance which is appropriate for the euro area as a whole while being balanced at Member States' level. ([87]) This makes a case for procedures and instruments to manage the overall euro area fiscal stance as a logical counterpart of the common monetary policy. This avenue has been followed very recently by the Commission in its call for a positive fiscal stance for the euro area. ([88]) The introduction of a common stabilisation capacity would also enable to manage shocks that cannot be absorbed by the national fiscal stabilisers on their own. ([89])

Christiano, L, M. Eichenbaum, and S. Rebelo (2011), 'When Is the Government Spending Multiplier Large?', Journal of Political Economy, Vol. 119, No. 1, pp. 78 - 121.
See also In 't Veld, J. (2013), 'Fiscal consolidations and spillovers in the Euro area periphery and core', European Economy Economic Papers, No. 506, October 2013.

([85]) See Buti, M. and V. Gaspar (2015), 'Designing fiscal policy for steady, enduring growth', VoxEU, 10th December 2015.

([86]) See the Communication from the European Commission, http://ec.europa.eu/economy_finance/economic_governance/sgp/pdf/2015-01-13_communication_sgp_flexibility_guidelines_en.pdf

([87]) For example, available empirical evidence suggests that not only increasing public investment by adjusting the composition of budgets in a neutral way is beneficial for growth, but also that debt-financed increase in government investment will have a positive spillover effect across the euro area, especially as monetary policy is constrained at the ZLB. See In 't Veld, J. (2016), 'Public investment stimulus in surplus countries and their euro area spillovers', European Economy Economic Brief, No. 16, August 2016 .

([88]) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Towards a positive fiscal stance for the euro area, 16.11. 2016.
European Commission Staff Working document Report on the Euro Area concerning the Recommendation for a Council recommendation on the economic policy of the euro area, 22.11. 2016.

([89]) See for instance: The VoxEU eBook on 'How to fix Europe's monetary union: Views of leading economists', http://voxeu.org/content/how-fix-europe-s-monetary-union-views-leading-economists; or the selected issues of the IMF Art. IV 2016 review of the euro area: http://www.imf.org/external/pubs/ft/scr/2016/cr16220.pdf.