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Monetary policy with transitory vs. permanently low growth

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IN-DEPTH ANALYSIS

Requested by the ECON committee



Monetary policy with transitory vs. permanently low growth

Monetary Dialogue November 2018



Policy Department for Economic, Scientific and Quality of Life Policies
Directorate-General for Internal Policies
Authors: Christophe BLOT, Jérôme CREEL and Paul HUBERT
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Monetary policy with transitory vs. permanently low growth

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Abstract

The recent economic slowdown in the euro area depends on supply-side and demand-side factors with different consequences on potential output. On the one hand, it may grow at a low pace for a long time; on the other hand, it may soon grow a bit faster. The ECB strategy has to adapt to these different possible outcomes. Anyway, we argue that the ECB has rooms for manoeuvre whatever the trend in output.

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LIST OF ABBREVIATIONS

EA	Euro area
ECB	European Central Bank
ELB	Effective Lower Bound
QE	Quantitative Easing
LTRO	Long Term Refinancing Operations
MRO	Main Refinancing Operations
QE	Quantitative Easing
TLTRO	Targeted Long Term Refinancing Operations
ZLB	Zero-Lower Bound

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EXECUTIVE SUMMARY

Background

The level of growth matters for monetary policy not only in the short term but also in the long term. In the short term, lower growth generally signals lower inflation and should bring the central bank to implement more expansionary monetary policy by reducing the policy rate. If growth is lower for a sustained period, optimal monetary policy is also an issue as the decline in the trend – potential – growth influences the natural rate of interest. In this policy brief, we assess the challenges for monetary policy raised by permanent lower growth. We also discuss the role of monetary policy if the reduction of growth is not permanent but transitory.

Aim

- Growth in the euro area over the past ten years has decreased suggesting that it would be permanently lower. Lower trend growth implies a low natural rate of interest rate, which is an issue for central banks. Consequently, monetary policy should tend to be too loose rather than too tight in the future.
- In a low growth environment, there is a higher probability that the policy rate reaches the zero lower bound.
- Policymakers could then extend their monetary policy toolkit with balance-sheet policies used in normal times, negative interest rate policy and forward guidance. They could also adopt a different strategy like price level or nominal GDP targeting.
- Financial stability risks and vulnerabilities are likely to intensify in a permanent low interest environment. Macro-prudential policies may therefore be applied to limit those risks.
- An expansionary fiscal policy is another option to address a permanent decline in growth. It may take various forms and notably rely on an extended public investment programme
- Lower growth is however not a fatality and the recent slowdown of GDP in 2018 may not signal the end of the recovery as it is also due to demand factors.
- Should the current low growth momentum be mainly a transitory phenomenon, central banks could go back to standard monetary policy tools.
- The ECB may also rely on unconventional measures or delay the normalization of monetary policy.
- Under a temporary low growth process, the short-run impetus to growth might therefore come mainly from fiscal policy. This would require that the ECB does not react by a more restrictive stance to an expansionary fiscal policy.

1. INTRODUCTION

The level of growth matters for monetary policy not only in the short term but also in the long term. In the short term, lower growth generally signals lower inflation and should bring the central bank to implement more expansionary monetary policy by reducing the policy rate. If growth is lower for a sustained period, it is still an issue for central banks because the decline in the trend – potential – growth influences the natural rate of interest, which is the value of the real interest rate that is expected to prevail when the economy stands at its potential and inflation is equal to the target set by the central bank.¹ The monetary policy strategy should be adapted to the growth environment and should be different whether growth is low for a short or a sustained period.

Over the period 2008-2017, average growth in the euro area has been reached 0.6 %, while it amounted to 2.3% between 1999 and 2007. The reduction in growth has raised concerns about a risk of a permanent decline in the GDP growth, echoing the debate on the secular stagnation and indicating that the natural rate of interest rate could be low.² However, The “low growth” environment has been largely driven by financial factors and empirical evidence suggest that recessions associated with financial crises last longer, are more severe than “normal” recessions and are followed by credit less recoveries.³ The 2008-2017 period has been indeed characterized by a double dip recession in 2008-2009 and 2012-2013 caused by the global financial crisis – the most severe financial crisis since the 1929 crisis – and the sovereign debt crisis.

These factors have yet now reversed in most European countries. Uncertainty has fallen, confidence indicators have improved, investment has picked up and fiscal policy is consolidating less or no longer in most Eurozone countries suggesting that the natural rate of interest rate could be rising again. Since 2015, the euro area has indeed experienced an upturn with growth averaging 2.1%. The euro area might not be doomed to secular stagnation. Growth was notably higher in Spain, a country that has been severely hit by the crisis. The ongoing recovery has also coincided with the implementation of non-standard measures from the ECB. In addition, various measures of risk premia in risky assets have declined together with measures of uncertainty, that have fallen back to their lowest levels across the last 2 decades. Statistical information available for the first 3 quarters of 2018 indicates some signs of slowdown of growth. According to the recent OFCE economic forecasts though, GDP growth is expected to reach 1.9% (Figure 1).⁴

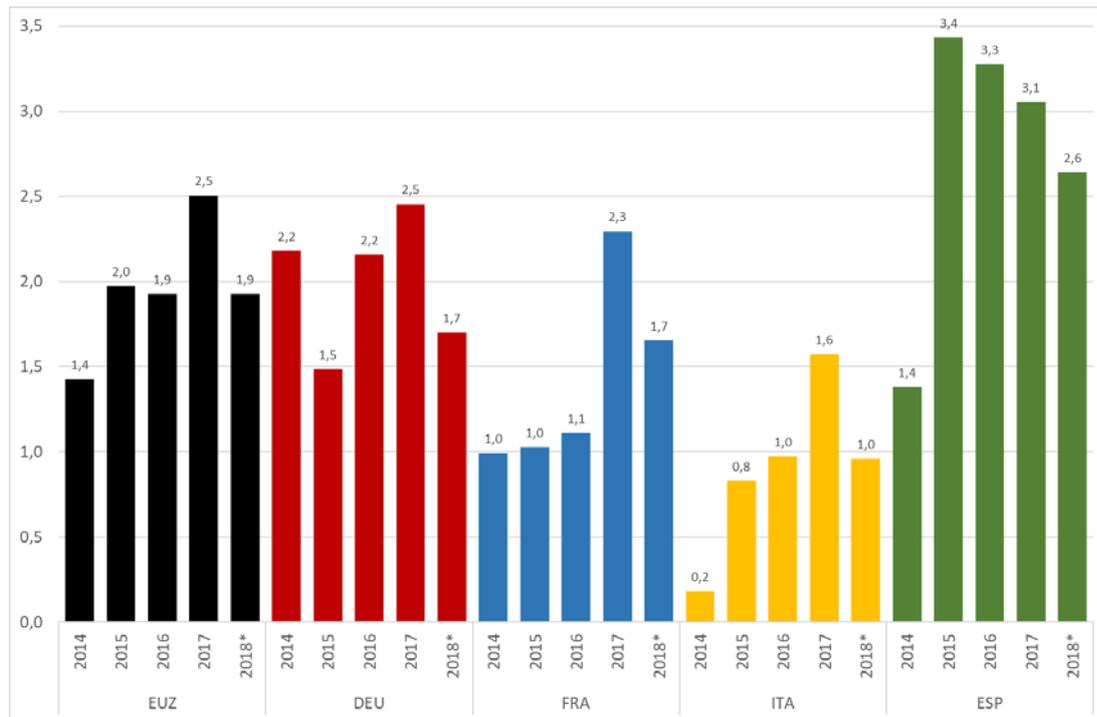
¹ The natural interest rate is also called R-star by economist as a reference to the Taylor rule, which may serve as an indicator for the monetary policy stance.

² It would be close to zero according to Holston et al. (2017).

³ See Abiad & Dell’Ariccia (2014) and Claessens, S., Kose, M.A., & Terrones, M. E. (2009).

⁴ According to the European commission forecasts, growth would be slightly higher in 2018: 2.1%.

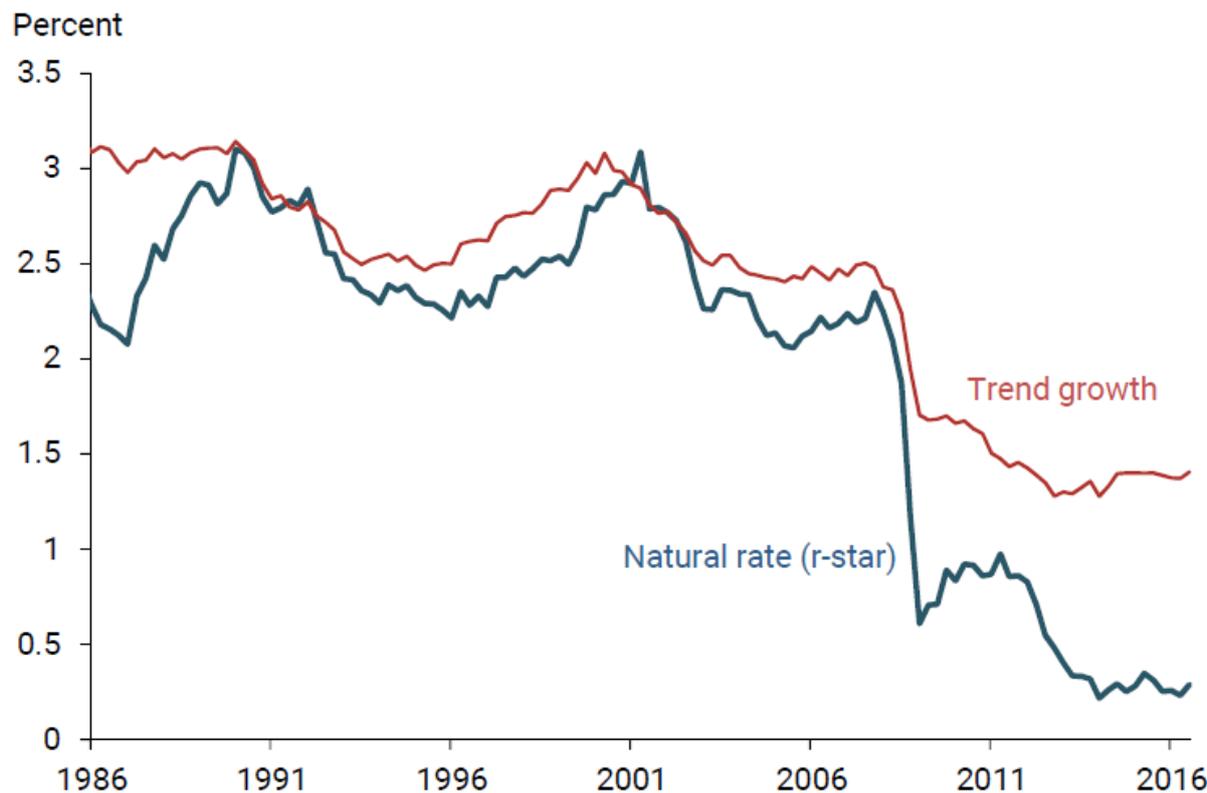
Figure 1: GDP growth in the euro area and the main Eurozone countries (in %)



Source: Eurostat, OFCE forecasts.

There is consequently still an issue about the length of the recovery and the future – potential – growth in the euro area, which is an important driver of the natural rate of interest. The estimates of R-star for four countries realized by Holston et al., (2017) clearly highlight a correlation between the value of R-star and the dynamic of trend growth (figure 2). Part of the decline of R-star would be explained by a supposed reduction in trend growth. A discrepancy has yet been highlighted after the outbreak of the financial crisis in 2007-2008 suggesting that other factors may also influence the value of the natural rate of interest.

Figure 2: Average R-star estimates and trend growth for four countries



Source: Estimates from Holston, Laubach, and Williams (2016) of GDP-weighted average for United States, Canada, the euro area, and the United Kingdom. Weights are GDP at purchasing power parity, OECD estimates. Pre-1995 euro area weights are total weights of the 11 original euro area countries.

Source: Williams (2017).

One of the other crucial factors affecting R-star after the global financial crisis has been global austerity. Fiscal policy has been particularly restrictive in the US, UK and the euro area. These contractions had strong negative impact of demand and on growth. As mentioned above, they have contributed to delay the recovery in the euro area. Synchronized fiscal consolidation has now ended and there is now more heterogeneity in the fiscal stance among industrialized countries. Since 2015, fiscal stance is neutral and even slightly expansionary at the euro area level. In the US, the Trump election led to a significant change in fiscal policy with a large fiscal stimulus that has raised the US deficit and has increased the supply of US sovereign debt which should in turn increase long-term US bond yields.

Another interpretation of the decline in the natural rate of interest is related to the global scarcity of safe assets. The financial system would be characterized by a strong demand of safe assets – Treasury bills issued in most advanced countries – either from private agents and from the public sector and notably central banks in emerging countries.⁵ Strong demand would have exceeded supply triggering a fall in short term interest as highlighted by the decline in R-star. The change in the supply of safe assets is therefore a crucial determinant of the natural rate of interest. As the Fed (since

⁵ See Fahri, Gourinchas and Rey (2011).

December 2015) and the ECB (in the future) begins reducing their balance sheet, the flow of asset purchases or reinvestment by these central banks is expected to reduce or even disappear. This will result in increases in term premia, and should contribute to an increase in long-term interest rates. The safe assets channel therefore suggests that there is some potential for an increase in the natural rate of interest over the next year.

There is consequently uncertainty concerning the long-term growth in the euro area and then the strategy that should be implemented by central banks and governments. In this policy brief, we assess the challenges for monetary policy raised by permanent lower growth. We also discuss the role of monetary policy if the reduction of growth is not permanent but transitory.

2. CHALLENGES RAISED BY PERMANENTLY LOW GROWTH

Monetary policy decisions in “a low growth for a long period” scenario are theoretically similar to those in a normal environment. In both cases, the appropriate stance of monetary policy must be set to achieve the policy targets conditional on the state of the economy and the monetary transmission mechanism. But if the natural rate of interest is permanently low, the effective lower bound (ELB) on short-term policy rates is likely to bind more often and for longer periods. For this reason, the actual conduct of monetary policy may be different from normal times.

While unconventional policies have been implemented as emergency measures to support the economy and reduce financial stress during the financial crisis, monetary policymaking would have to deal with a potential deflationary bias in a low growth scenario and should take into account the central bank inability to stimulate the economy enough.

2.1. Permanent low growth implies more time at the ZLB

A low growth environment can be characterized by a low policy rate on average, because of a low natural rate of interest. Larger monetary policy responses may also be required in response to economic disturbances than during normal times because the macroeconomic relationships may be different at the ELB (Bernanke, 2004, and Stock and Watson, 2003). The probability that policymakers should set the policy rate below the ELB increases with macroeconomic volatility when the policy rate is close to the ELB. In the low growth environment, the “riskiness” of the economy becomes much more significant. Because monetary policy would be occasionally constrained in its ability to provide sufficient stimulus, but never in its ability to respond appropriately in expansions, risk is skewed to the downside. As a consequence, in a low growth scenario, monetary policy should tend to be too loose rather than too tight.

Kiley and Roberts (2017) have found a sharp deterioration of macroeconomic performance in the Federal Reserve Board model of the US if the natural rate of interest drops to 1 % in the absence of unconventional policy tools. The ZLB binds for close to a third of the time, inflation falls short of target, averaging about 1.2%, and the average output gap falls to about -1.3%. For the United Kingdom, Haberis et al. (2016) suggest that the policy rate would be negative with a 5 to 20% probability if the natural rate of interest is between 0 and 0.5%. Therefore, monetary policy is likely to be constrained with a clearly non-negligible frequency if central banks follow their current strategy in a low growth scenario. Macroeconomic performance in general would be negatively affected as a result.

Potential responses to the challenges posed by the low growth environment can be classified in two categories about the policy effectiveness and the policy space. Policymakers could extend their monetary policy toolkit with normal times balance-sheet policies (see Hanson, Stein and Greenwood, 2015), the systematic use of forward guidance and risk management strategies, and the adoption of a different policy strategy like price level or nominal GDP targeting. In addition, macro-prudential policies may be applied to limit financial risks and therefore the probability that monetary policy is required in response to recessions, reducing the risk of a binding ELB.

Alternatively, policymakers may seek to increase the room for manoeuvre for conventional monetary policy through innovations increasing the distance between the usual level of the policy rate and the ELB. For a given level of the natural rate of interest, there are two options: lower the ELB or increase the inflation target. A lower ELB goes through negative nominal interest rates while a higher inflation target would involve a change of the ECB mandate. Another option is to offset the secular decline in the natural rate of interest. Although it seems difficult to reverse the global patterns of saving and investment, the case for a closer coordination of monetary and fiscal policies is stronger. A pro-active

fiscal policy can make up for the missing monetary stimulus and ease the negative consequences of the ELB.

Finally, prolonged periods of low inflation may de-anchor inflation expectations. Buseti, Monache, Gerali and Locarno (2018) show, using EA data on survey of professional forecasters, that forecast in the lowest quantiles, which are also the ones with the largest errors, are those which update their information set less.

One can worry that a low growth environment would alter the behaviour of banks and financial institutions. Financial stability risks and vulnerabilities are likely to intensify because of lower profitability, or due to the response to lower profitability, such as a search for yield. However, it seems that banks have been successful in maintaining steady net interest margin since the 1990s - with high and low policy rates and varying slopes of the yield curve. The standard response to low profitability is balance sheet expansion and increased search of yield. If banks, pension funds and insurers all over the world chase the same assets, then asset bubbles are likely to emerge, such that their burst would create financial stability risks.

2.2. Monetary policy implications

Unconventional policy measures will therefore be required to provide the desired stimulus. If such measures are imperfect substitutes for conventional policies and this is likely to be the case, monetary policy itself will be constrained. In turn, this implies that the ELB will bind more frequently. However, the apparent success of unconventional policy tools over the past decade suggests that an extended toolkit may enhance the effectiveness of monetary policy. These tools may affect term premia, and both the portfolio rebalancing and signaling channel may be expected to operate more efficiently. However, balance sheet policies remain controversial, both because of uncertainty about their effects on macroeconomic variables, and because of their potential side-effects. In addition, their impact is potentially state-contingent and decreasing with their use because of the previous reductions in term premia. Their effect may be maximum to address a specific market stress or economic disturbance, but small during normal times. Moreover, their use in normal times raises concerns about distortions in financial markets, financial stability implications, distributional effects, central bank capital losses and so central bank independence. Kiley (2017) suggests that QE is particularly effective as a secondary tool in a low growth environment, and if its implementation is sufficiently aggressive, QE has the potential to improve macroeconomic performance significantly.

Another option relates to negative interest rates. They have been applied in a number of advanced economies (see Ball et al., 2016, for a discussion). The experience suggests that interest rates may be cut into negative territory to provide additional stimulus without much difficulty. The technical ELB appears to be below zero. Specifically, pass-through to market rates is close to normal, with a satisfactory pass-through to lending rates. Household deposit rates are stickier, and negative rates are generally not passed on to household deposits. Bank profitability has remained high as banks have compensated through fees and increased lending, whereas cash hoarding has not been observed. In a low growth environment, the additional monetary policy space provided by negative interest rates would improve greatly the effectiveness of monetary policy.

An option that has also been widely used recently refers to the forward guidance (FG) policy. The most common form of FG practiced by central banks is *Delphic* (see Campbell et al., 2012). This type of guidance consists of statements about the policymaker's assessment of the future state of the economy and so the future setting of monetary policy instruments. It is a forecast of the future likely policy path. The objective is to clarify the policymaker's reaction function. *Odyssean* forward guidance, by contrast, involves commitment and is a promise to constrain future policy and deliberately overshoot target variables in the future to improve outcomes today.

Krugman (1998) and Eggertsson and Woodford (2003) suggest that Odyssean forward guidance is particularly powerful when monetary policy is constrained. By committing to engineer a future boom with inflation overshooting its target, forward guidance may potentially reduce real interest rates and boost asset prices and current demand. Over the past decade, most of the central banks have therefore included elements of promises to keep interest rates “for a considerable period of time” or “for an extended period of time”. In a low growth environment, forward guidance would help improving the understanding of the policy reaction function, and so increase policy effectiveness when the policy space is limited. Delphic forward guidance about the future policy path may increase the transmission to long-term yields. Chen et al. (2012) suggest that forward guidance is most effective when combined with QE possibly by strengthening the signaling channel of this instrument. Reifschneider (2016) argues that a combination of Odyssean forward guidance and QE will be able to provide sufficient stimulus to the US economy if the natural rate of interest is around 1 %.

A monetary policy that “leans against the wind” takes an insurance against a financial crisis, paying an insurance premium in the form of a weak macroeconomic performance. In a low growth environment, this insurance premium is likely to increase. By weakening the economy, a contractionary bias in policy would lead to a further deterioration of performance. The gains from macro- and micro-prudential policies are therefore likely to be larger in the low growth environment. Monetary policymakers would not have to respond to financial imbalances ex ante and pay the “lean against the wind” insurance premium. In addition, a resilient financial system reduces the risk that monetary policy has to “clean up” after a financial crisis.

A change in the policy framework could also enable to improve policy effectiveness in a low growth scenario. The main candidate is price-level targeting, a framework in which policymakers always correct for past inflation target misses by delivering subsequent overshoots in the opposite direction - “history dependence” according to Woodford (2003) or a “make-up policy” according to Bernanke (2017). Eggertsson and Woodford (2003) show that a credible commitment to such a path for the price level delivers very good outcomes when the ELB is binding. Moreover, a commitment to bringing prices back to a predictable path reduces uncertainty about the future price level. An alternative would be nominal GDP level targeting that introduces a similar history-dependence, but also incorporates the trade-off between inflation and real GDP in a single target.

Another change in the policy framework is to modify the level of the inflation target as it would provide a direct effect on the room for manoeuvre for conventional monetary policy. An increase in the target would create more policy space by increasing the normal level of nominal interest rates. Moreover, at the ELB, higher inflation expectations would help to stimulate the economy through lower real interest rates. The greater ability to ease the stance of monetary policy would reduce the frequency of ELB episodes.

3. CHALLENGES RAISED BY TRANSITORY LOW GROWTH

After the growth recovery of 2016 and 2017, the current slowdown may be interpreted as a temporary phenomenon related to efficiency issues, growing uncertainties about future trade prospects and the debt overhang. Were these three elements receding, potential output in the euro area would grow faster than 1.5% per year (Autumn 2018 Forecasts, European Commission) and effective growth rates in 2019 and 2020 might also be higher than the Commission's forecasts, resp. 1.9 and 1.7%.

3.1. Low growth means room for expansionary policy

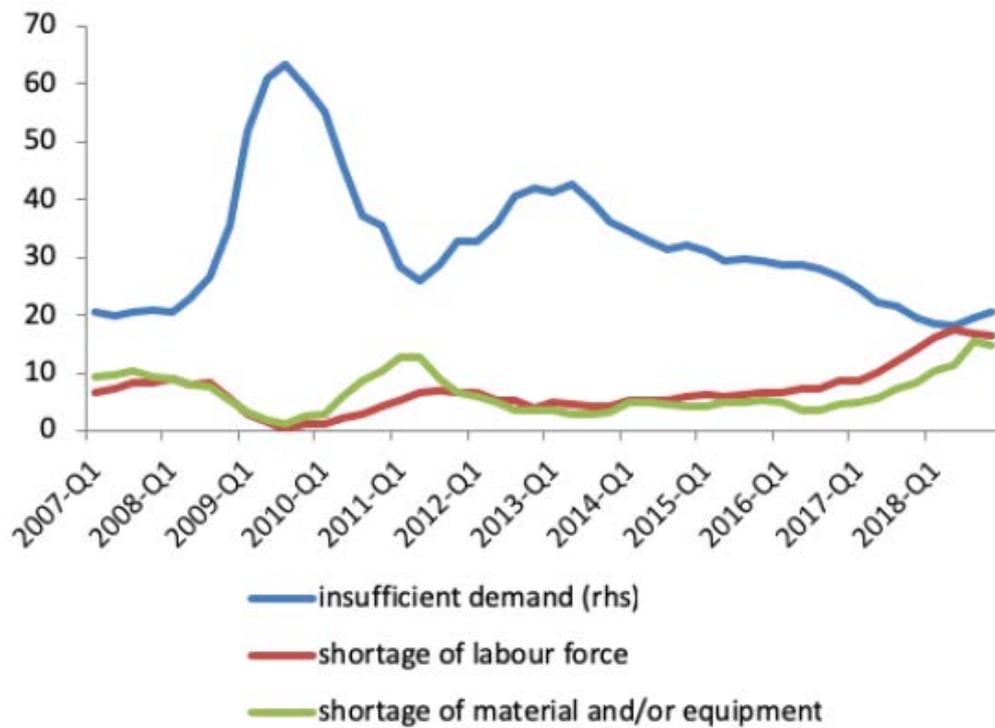
There are three possible drivers to the current slowdown in euro area GDP growth. First, the observed weakness in productivity growth could be due to the adoption and diffusion of new technology and their slow impact on aggregate economic growth (see e.g. Benhabib et al., 2017). The decision to innovate, the adoption of new technology, and their diffusion at the firm level can lead to hysteresis. Moreover, estimates of total factor productivity and potential output can be highly correlated with revisions in effective GDP growth (see e.g. Coibion et al., 2018). Consequently, there may be under-estimation of both potential growth and future effective growth as economic forecasters use the potential GDP growth to forecast the (future) effective growth rate.

Second, the fears of a "trade war" with the US should not be over-estimated. Until now, the EU has been mostly spared Trump's protectionist agenda. It remains that the EU and the Eurozone might incur some indirect costs of the US trade policy vis-à-vis China: notwithstanding financial uncertainty, a disorganisation of global value chains is no good news for the largest net exporter area in the world (Buti and Döhring, 2018).

Third, the subdued growth prospects may relate to previous restrictive fiscal policies that delayed deleveraging by the public and private sectors. Fiscal policies have not supported investment, have slow-downed the recovery and hindered a counter-cyclical impetus that would have accelerated the output gap's closing. Moreover, monetary expansion has come late, after financial fragmentation among euro area Member States had emerged. Unconventional monetary measures by the ECB have therefore been aimed initially at mitigating fragmentation rather than at closing the output gap (fragmentation reduces potential and effective GDP; hence, it does not influence the output gap). It is only after unconventional measures have successfully reduced fragmentation (as pointed out by Gabrieli and Labonne, 2018) that they could boost the recovery.

Recent data from the European Commission (see figure 3) point to the renewal of demand factors at the origin of the GDP slowdown, according to business and consumer surveys. The contribution of demand to production limitation has increased for two quarters. The Commission interprets this trend "as a sign of the cyclical expansion losing momentum" (Buti and Döhring, 2018). If one also interprets the shortage of material and/or equipment as a temporary factor (before, e.g. diffusion of new technology), the slack in GDP growth may well be mainly transitory.

Figure 3: Factors limiting production



Source: Buti and Döhring (2018), based on DG ECFIN Business and Consumer Surveys.

3.2. Monetary policy implications

The assessment of long-term growth trend has relevant implications for the monetary stance. Should the current low growth momentum be mainly a transitory phenomenon, central banks could go back to standard monetary policy tools (e.g. the well-known ECB price-stability objective by managing policy rates). A negative and protracted output gap, whether it stems from slow diffusion of innovation/technology/knowledge to the economy, to necessary shifts in global value chains or to the debt burden that drags investment and consumption (below levels they should have had during a steady recovery), can be stabilised by a conventional expansionary policy.

There are examples in the literature of the stabilising role of ECB conventional policies on GDP. Drawing on a sample of data between 1999 and 2008, Blot et al. (2015) show that before the financial crisis, the behaviour of the ECB could correspond to the adoption of a flexible inflation-targeting rule. The ECB reacted to inflation deviations, as expected, but it also reacted to output deviations (proxied by the real GDP growth rate). Hence, a conventional expansionary policy in the face of a GDP slowdown could dampen the GDP deviation and push up demand.

Yet, the current economic and monetary situation has not come back to the pre-crisis levels of interest rates and central bank balance sheet. Under a ZLB, the ECB cannot implement a conventional expansionary policy. It must rely on unconventional measures, like TLTRO, forward guidance and asset purchases. Many articles in the literature have shown that previous unconventional monetary measures have had a favourable impact on interest rates and growth in the euro area (e.g. Creel et al., 2016; Eser and Schwaab, 2016; Gibson et al., 2016; Ghysels et al., 2016; Salachas et al., 2017; Szczerbowicz, 2015). The size of the ECB balance sheet is certainly not the same as in 2008 (before the

implementation of unconventional measures) but this does not preclude the use of non-standard measures to counter the slow-down if deemed necessary.

Ideally, the implementation of QE measures should happen after the size of central banks' balance sheets has declined. The scope for action would be larger then. Nevertheless, under a temporary low growth, a short-run impetus should take place, leaving no time to normalize monetary policy to pre-crisis levels. While it would contradict the announced end of QE, its extension after the end of 2018 (or delayed and slow exit from QE) would keep interest rates low and favour private investment.

Extension of QE would also help removing the current tensions on sovereign bond markets. The Italian interest rate spreads are increasing and may fuel some contagion to other euro area countries. At the other extreme, the yield curve is relatively flat in the euro area beyond 10-year maturity. It can relate to the forthcoming end of QE: the latter occurs concomitantly with a drought of bond supply by most euro area governments geared towards the fulfilment of EU debt limits. The fall in bond prices, because of a declining demand in the wake of fading QE, will not occur unless bond supply remains steady or, better, increases.

Under a temporary low growth process, the short-run impetus to growth might therefore come from fiscal policy. In a game-theoretic approach, this would require from the ECB that it does not react by a more restrictive stance to an expansionary fiscal policy. The "chicken-game" approach by which fiscal and monetary authorities over-react to the other's policy should not prevail. Stated differently, coordination between fiscal and monetary authorities should prevail.

In contrast with a permanent low growth process, the expansionary fiscal policy should take various forms: an extended public investment programme (that would also increase potential output and long-run GDP), and transfers and/or lower taxes to households of the low end of income distribution.

4. CONCLUSION

Growth in advanced economies has been largely driven by financial factors since 2008. The financial and the sovereign debt crises have triggered a double dip recession in the euro area raising fears that output growth could be permanently lower echoing the debate on secular stagnation. This would be a major concern for central banks as it would imply that the natural rate of interest is low. Monetary policy strategy would therefore have to adapt to this low interest rate environment with a risk of being more frequently constrained by the zero lower bound. However, policymakers have still room of maneuver as they may resort to balance-sheet policies, negative interest rate policy and forward guidance in normal times. They could also adopt a different strategy like price level or nominal GDP targeting.

It should yet be stressed that over the last 3 years, some of the financial factors that weighed down growth have started to reverse. Uncertainty has fallen, sentiment has improved, investment has picked up and fiscal policy in the major advanced economies is no longer consolidating. Recovery is ongoing and the recent slowdown observed in the 3rd quarter of 2018 may be interpreted as a temporary phenomenon. Euro area is not doomed to a low growth / weak inflation environment so that central banks could go back to standard monetary policy tools. Under a temporary low growth process, the short-run impetus to growth might therefore be addressed with monetary and fiscal policies. In the current situation where monetary policy has not come back to the pre-crisis levels of interest rates and central bank balance sheet, the ECB would also have the opportunity to resort to a new wave of unconventional measures if the slowdown of growth is more pronounced than expected.

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The recent economic slowdown in the euro area depends on supply-side and demand-side factors with different consequences on potential output. On the one hand, it may grow at a low pace for a long time; on the other hand, it may soon grow a bit faster. The ECB strategy has to adapt to these different possible outcomes. Anyway, we argue that the ECB has rooms for manoeuvre whatever the trend in output. This document was provided by Policy Department A at the request of the ECON Committee.

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