



Challenges ahead for EMU monetary policy

Christophe Blot, Jérôme Creel, Paul Hubert

► To cite this version:

Christophe Blot, Jérôme Creel, Paul Hubert. Challenges ahead for EMU monetary policy. 2019. hal-03403244

HAL Id: hal-03403244

<https://sciencespo.hal.science/hal-03403244>

Preprint submitted on 26 Oct 2021

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

Challenges ahead for EMU monetary policy

Monetary Dialogue September 2019



Challenges ahead for EMU monetary policy

Monetary Dialogue September 2019

Abstract

With the economic slowdown in the euro area, questions arise as to whether the ECB retains some economic and political margins for manoeuvre after a decade of active policies. In this note, we highlight three possible monetary policy developments. We discuss their pros and cons according to four dimensions: political constraints, technical constraints, independence and interactions with fiscal policy.

This document was requested by the European Parliament's Committee on Economic and Monetary Affairs.

AUTHORS

Christophe BLOT, OFCE-Sciences Po & Université Paris Nanterre

Jérôme CREEL, OFCE-Sciences Po & ESCP Europe

Paul HUBERT, OFCE-Sciences Po

ADMINISTRATOR RESPONSIBLE

Dario PATERNOSTER

Drazen RAKIC

EDITORIAL ASSISTANT

Janetta CUJKOVA

LINGUISTIC VERSIONS

Original: EN

ABOUT THE EDITOR

Policy departments provide in-house and external expertise to support EP committees and other parliamentary bodies in shaping legislation and exercising democratic scrutiny over EU internal policies.

To contact the Policy Department or to subscribe for updates, please write to:

Policy Department for Economic, Scientific and Quality of Life Policies

European Parliament

L-2929 - Luxembourg

Email: Poldep-Economy-Science@ep.europa.eu

Manuscript completed in September 2019

© European Union, 2019

This document is available on the internet at:

<http://www.europarl.europa.eu/committees/en/econ/monetary-dialogue.html>

DISCLAIMER AND COPYRIGHT

The opinions expressed in this document are the sole responsibility of the authors and do not necessarily represent the official position of the European Parliament.

Reproduction and translation for non-commercial purposes are authorised, provided the source is acknowledged and the European Parliament is given prior notice and sent a copy.

For citation purposes, the study should be referenced as: BLOT, C., CREEL, J., HUBERT, P., *Challenges ahead for EMU monetary policy*, Study for the Committee on Economic and Monetary Affairs, Policy Department for Economic, Scientific and Quality of Life Policies, European Parliament, Luxembourg, 2019.

CONTENTS

| | |
|--|-----------|
| LIST OF ABBREVIATIONS | 4 |
| LIST OF FIGURES | 5 |
| LIST OF TABLES | 5 |
| EXECUTIVE SUMMARY | 6 |
| 1. INTRODUCTION | 7 |
| 2. ECB POLICY FOR THE FUTURE | 9 |
| 2.1. QE reshuffled | 9 |
| 2.2. QE for corporates | 11 |
| 2.3. QE to households | 14 |
| 3. TRADEOFFS AND CONSTRAINTS RELATED TO QE EXTENSIONS | 17 |
| 3.1. Technical versus political constraints | 17 |
| 3.2. Interactions with fiscal policy | 18 |
| 4. CONCLUSIONS | 21 |
| REFERENCES | 22 |

LIST OF ABBREVIATIONS

| | |
|--------------|---|
| APP | Assets Purchase Programme |
| BoJ | Bank of Japan |
| CSPP | Corporate Sector Purchase Programme |
| EA | Euro Area |
| ECB | European Central Bank |
| ETF | Exchange-Traded Funds |
| FRFA | Fixed Rate Full Allotment (policy) |
| LTRO | Long Term Refinancing Operations |
| PSPP | Public Sector Purchase Programme |
| SMP | Securities Market Programme |
| TLTRO | Targeted Long Term Refinancing Operations |
| QE | Quantitative Easing |
| QQE | Qualitative and Quantitative easing |

LIST OF FIGURES

| | | |
|-----------|--|----|
| Figure 1: | Inflation expectations 5-year ahead 5-year forward | 8 |
| Figure 2: | Corporate bond spread before and after the CSPP announcement | 12 |
| Figure 3: | Stock price indexes | 13 |
| Figure 4: | Technical versus political constraints | 18 |

LIST OF TABLES

| | | |
|----------|--|----|
| Table 1: | Country weights with alternative measures (in %) | 10 |
|----------|--|----|

EXECUTIVE SUMMARY

- This briefing paper deals with the options for the ECB to mitigate the current economic slowdown, foster higher inflation and inflation expectations. It seems that monetary policy in the euro area is not constrained and that further stimulus may be implemented if needed. We discuss political constraints, technical constraints, independence and interactions with fiscal policy.
- The ECB may contemplate another allocation of bond purchases than the ECB capital key, an extension of quantitative easing (QE) towards riskier corporate bonds or stocks, and a QE oriented towards the households (or QE for the people).
- Considering the re-activation of the PSPP (Public sector purchasing programme), the ECB would have more leeway if it departed from the capital key. The capital key is one weighting scheme among others. An alternative is to purchase sovereign debt according to public debt weights. The distribution might otherwise be based on the distance of each national inflation rate to the ECB target such that the stimulus needed in each country is appropriate to reach the ECB mandate. In any case, the marginal technical constraints compared to the current PSPP are weak whereas the political constraints are more important.
- The ECB could buy private assets, hence re-orienting the QE towards firms and purchase either riskier corporate securities or stocks. The technical and political constraints for this option are small. However, in the euro area, firms rely more on bank funding and wealth effects are weak, reducing the effectiveness of a QE for firms. Considering the potential side-effects (creating bubbles and increasing inequalities), the purchase of stocks may not be the first best option.
- Finally, the ECB could carry out a lump-sum transfer to citizens. Such a strategy would be similar to the image of helicopter money – printing money and distributing it to the public. The objective would be to fund directly household spending by increasing disposable income. There are several options to implement a QE for households raising significant technical concerns. With respect to political constraints, nothing in the euro area rules forbids the ECB from doing so.
- The implementation of unconventional measures has reinforced the interactions between monetary and fiscal policy. Some unconventional measures would entail an implicit fiscal transfers for the agents. QE for firms and households would notably lead to a trade-off between the lack of accountability of an implicit fiscal transfer and the need for closer cooperation that would weaken the independence of central banks.
- There is a need to understand why inflation is so low in the euro area. If it is related to the persistence of economic slack, additional stimulus is clearly needed and may be complemented by an expansionary fiscal policy. Low inflation may also be related to structural economic changes, which have increased job insecurity and weighed workers' bargaining power. Therefore, monetary and fiscal stimulus may be needed but they should also be complemented by structural policies improving job security.

1. INTRODUCTION

After the advent of the Global Financial Crisis and the sovereign debt crisis, the ECB has significantly modified the conduct of monetary policy and embarked in non-standard (or unconventional) policies like e.g. fixed rate full allotment (FRFA) policy, targeted long term refinancing operations (TLTRO) and public sector purchase programme (PSPP). The implementation of these policies followed three objectives: fixing the liquidity squeeze in the banking system, dealing with fragmentation and impaired transmission of monetary policy, and mitigating the risk of deflation. Recent assessments of ECB unconventional policies point to their positive impact on industrial production and inflation (Fiorelli and Meliciani, 2019, or the review by Dell’Ariccia et al., 2018), although these effects have been found heterogeneous across euro area (EA) countries depending on the health of the banking sector (Burriel and Galesi, 2018).

Beyond the assessment of economic effectiveness, the changes in ECB policy-making have brought the institution into new territories, not contemplated in the Treaty. Such is the case of the quasi-fiscal policies implied by the Securities Market Programme (SMP) and the PSPP. Both programmes have sparked political tensions inside the ECB Governing Council (Blot et al., 2019). While these tensions may have hindered the communication efforts of the ECB at anchoring inflation expectations, hence mitigating the economic effectiveness of ECB policies, they have also shown that changes in policy-making are politically costly and that margins for further reforms may be thin.

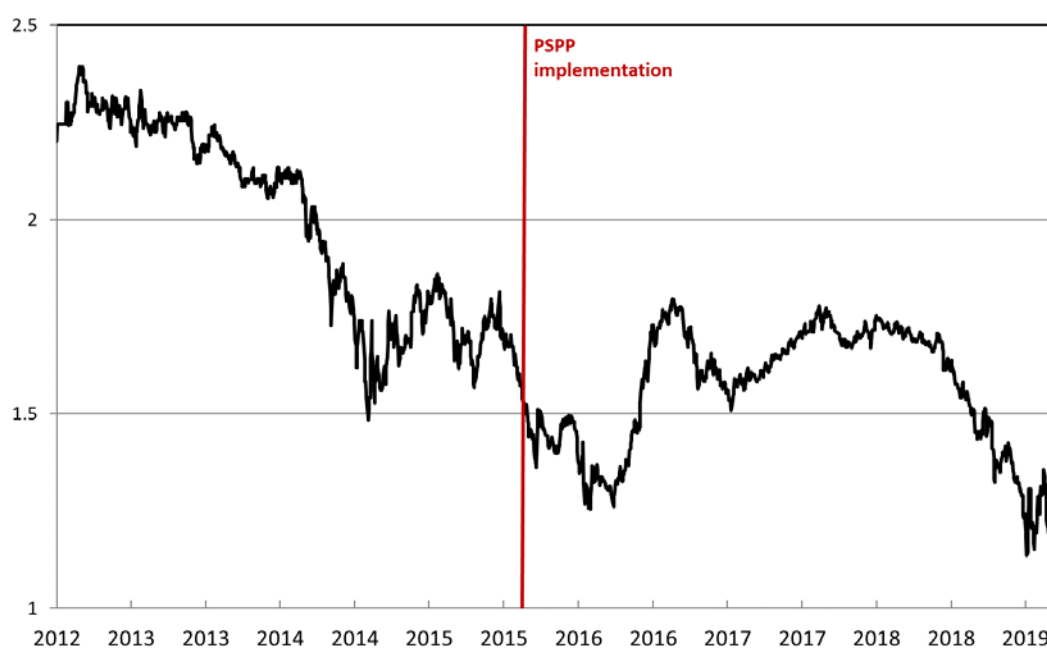
With the economic slowdown in the euro area (EA) and notably in Germany, weak inflation dynamics and, more importantly, the dis-anchoring of inflation expectations (see figure 1)¹, questions naturally arise as to whether the ECB retains some economic and political margins for manoeuvre to help the EA recover. Beside the economic downturn, the remaining real divergences across the EA (Diaz del Hoyo et al., 2017) advocate the use of public policies. Although the primary mandate of the ECB is price stability, its secondary objective (in so far as it does not jeopardise the former) is to meet the objectives of the EU. These are, for instance, the achievement of sustainable development, based on balanced economic growth and price stability, a highly competitive social market economy, aiming at full employment and social progress, and a high level of protection and improvement of the quality of the environment; and the promotion of economic, social and territorial cohesion among Member States. Indeed, in a period of below-target inflation, ECB policies can be thought of as a complement to foster real convergence across the euro area.

Politics aside, the ECB may contemplate many possible shifts or reforms: first, another allocation of bonds purchases than the ECB capital key; second, a Qualitative and Quantitative Easing (QQE) in the vein of the Bank of Japan (BoJ) with an extension of Quantitative easing (QE) towards stocks; or, third, a QE oriented towards the households (or *QE for the people*) that may substantially accelerate the monetary transmission mechanism.

On practical grounds though, these shifts or reforms would induce various consequences on some of the cornerstones of the EA policy architecture, like the independence of the ECB and its link with fiscal policy. Hence, they may be politically controversial and may expose the ECB to political risks. Finally, these shifts would also imply differentiated technical constraints that may make some of them less feasible than some others.

¹ Inflation swaps 5-year ahead 5-year forward, one of the main measures on which the Governing Council focuses, has dropped below the level at which PSPP was triggered in 2015 and below its historical lowest level.

Figure 1: Inflation expectations 5-year ahead 5-year forward



Source: Datastream.

2. ECB POLICY FOR THE FUTURE

Since the onset of the Global Financial Crisis, the range of measures and tools used by the ECB expanded quite significantly. While some of these tools, like balance sheet policies or negative interest rates could be extended further (Blot et al. 2018), other measures could be added to the ECB toolkit either to counter the next cyclical downturn or to foster convergence among EA countries.

2.1. QE reshuffled

A first measure could be added to modify one key rule of QE so far: departing from the capital key. In the unfolding of PSPP, the Eurosystem conducted “its purchases in a gradual and broad-based manner, aiming to achieve market neutrality in order to avoid interfering with the market price formation mechanism”². In this respect, NCB’s share of purchases followed the ECB capital key. We already developed two arguments for a departure from the use of ECB capital key (Blot and Creel, 2017): first, there are other criteria than the capital key to implement a homogenous monetary stimulus across countries; second, the ECB could also take advantage of decentralised implementation to produce a differentiated monetary stimulus.

The capital key is one weighting scheme among others to determine the national asset purchases of the Eurosystem. This weighting scheme modifies the relative availability of sovereign assets in the euro area bond market as the implementation of the PSPP brings the Eurosystem to be more active on e.g. the German and Dutch markets than what would prevail under a public debt weight (Table 1). The opposite situation occurs on the French and Italian markets where public debt weights are higher than capital keys. The choice of basing the purchases on the capital key has therefore some redistributive effects across EA countries and, consequently, it is not “market-neutral”.

Departing from the capital key, the ECB could manage to implement differentiated stimuli to stabilise the euro area as a whole and help Member States’ economies to converge, provided it does not jeopardise the primary objective of price stability. It was originally the aim of the SMP since only some countries, where market distortions were significant, were concerned by the asset purchases. It is certain that using an extended PSPP to address economic heterogeneities would be neither a simple task nor a first-best policy as it would involve some political risk. Such a change would modify the purpose and the implementation of monetary policy and would have to be made transparent by explicitly stating that the ECB is concerned with heterogeneity and adapts marginally its monetary policy to address this issue. Heterogeneities have remained pervasive in the euro area and have been reinforced since the global financial crisis. A “one size fits all” approach is not necessarily optimal and may even contribute to imbalances as was already emphasized before the crisis. By adopting an outright transactions policy, the Eurosystem has the ability to carry out some fine-tuning.

² ECB website on the implementation aspects of the public sector purchase programme (PSPP).

Table 1: Country weights with alternative measures (in %)

| | Capital Key (as of January 1 st 2019) | GDP weights (2018) | Public debt weight (2018) |
|--------------------|--|-----------------------|------------------------------|
| <i>Belgium</i> | 3.6 | 3.9 | 4.6 |
| <i>Germany</i> | 26.4 | 29.0 | 20.4 |
| <i>Estonia</i> | 0.3 | 0.2 | 0.0 |
| <i>Ireland</i> | 1.7 | 2.8 | 2.0 |
| <i>Greece</i> | 2.5 | 1.6 | 3.3 |
| <i>Spain</i> | 12.0 | 10.5 | 11.6 |
| <i>France</i> | 20.4 | 20.4 | 22.9 |
| <i>Italy</i> | 17.0 | 15.2 | 23.0 |
| <i>Cyprus</i> | 0.2 | 0.2 | 0.2 |
| <i>Latvia</i> | 0.4 | 0.3 | 0.1 |
| <i>Lithuania</i> | 0.6 | 0.4 | 0.2 |
| <i>Luxembourg</i> | 0.3 | 0.5 | 0.1 |
| <i>Malta</i> | 0.1 | 0.1 | 0.1 |
| <i>Netherlands</i> | 5.8 | 6.7 | 4.0 |
| <i>Austria</i> | 2.9 | 3.3 | 2.8 |
| <i>Portugal</i> | 2.4 | 1.7 | 2.4 |
| <i>Slovenia</i> | 0.5 | 0.4 | 0.3 |
| <i>Slovakia</i> | 1.1 | 0.8 | 0.4 |
| <i>Finland</i> | 1.8 | 2.0 | 1.4 |

Source: ECB and Eurostat.

In complement or in substitute for a shift from the capital key, the ECB could well follow the example of the (BoJ), which has adopted a new framework in order to strengthen monetary easing and seeks to control the yield curve since September 2016. To that end, it has set a target at -0.1% for the short-term policy rate and 0% for the 10-year Japanese government bonds. Unconventional policy measures implemented in Japan since 2010 have shown the expected impact on government bond yields, GDP and inflation, as reported in Dell’Ariccia et al. (2018). As anticipated, there is not much evidence on the effects of the recently adopted yield-curve control. Hattori (2018) and Hattori and

Yoshida (2019) are exceptions. They show that this operation successfully stabilised the 10-year government yield at the target level (Hattori, 2018) although other yields than government ones at the same maturity were not completely controlled (Hattori and Yoshida, 2019). In the euro area, the ECB cannot purchase a single sovereign asset since there is no Euro bond but a basket of national-issued sovereign securities. One option for the ECB would be to announce that purchases implemented in the new QE would aim at reaching a numerical target for the average rate in the EA. The ECB might also set different targets for each sovereign yields. This strategy may not be consistent with the current weighting scheme adopted by the ECB for purchases implemented in the first QE. Yet, as highlighted above, this scheme might be revised.

2.2. QE for corporates

Instead of purchasing public securities, the ECB could buy private assets, hence re-orienting the QE towards firms. The BoJ has already engaged in this strategy being a pioneer since it purchases exchange-traded funds (ETF). ETF are funds invested in stocks. This policy started in October 2010 with the launch of the Comprehensive Monetary Easing³ by which the BoJ has also purchased Japan real estate investment trusts.

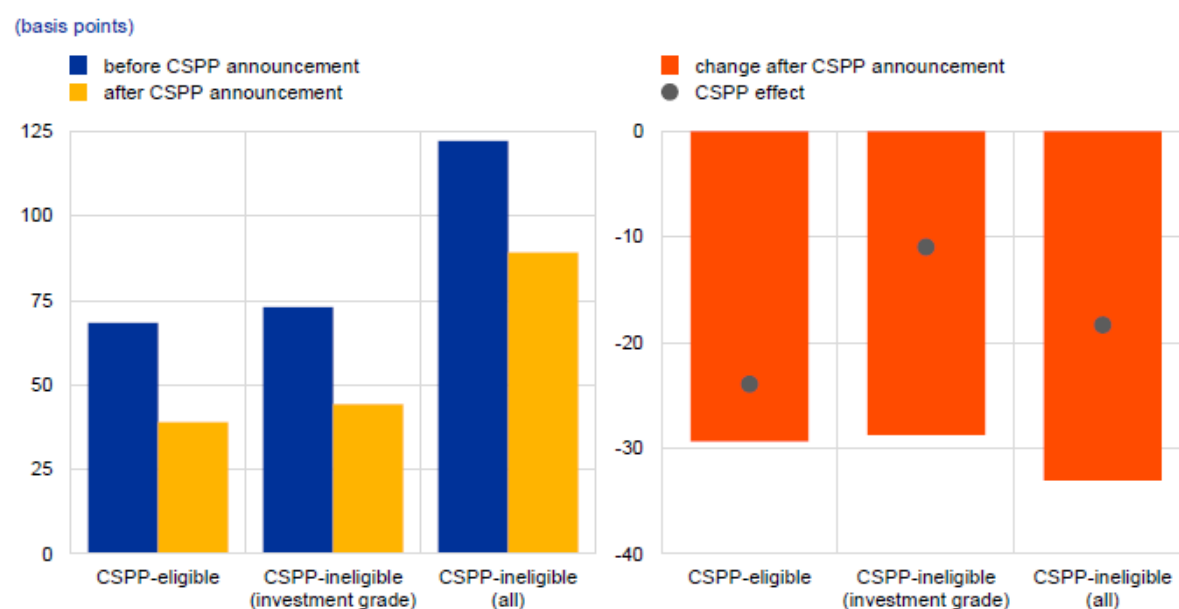
The BoJ policy intends to maintain (or reduce) sovereign and corporate yields at low levels. In contrast with purchases of sovereign bonds, acquisitions of ETF involve greater risk via price volatility. Recent evidence shows that ETF purchases have increased real GDP (Miyao and Okimoto, 2017) and inflation expectations (Okimoto, 2019a). Meanwhile, they raised stock prices (Barbon and Gianinazzi, 2018) but only temporarily (Charoenwong et al., 2019), and less and less so over the years (Harada and Okimoto, 2019). Overall, ETF purchases may dampen an economic and a stock-market slowdown, and push inflation expectations up. In the long run however, it may increase financial risk for the central bank if it has acquired stocks at a high price that it has contributed to increase, facing therefore a latent loss on its holdings of stocks (Okimoto, 2019b).

The ECB might therefore amplify its expansionary monetary policy through purchases of private assets. It would therefore provide a stimulus through a different channel. Actually, this strategy is already in the toolkit of the ECB with the CSPP (Corporate sector purchase programme). The CSPP is part of the APP and was launched in June 2016 when the ECB decided to buy bonds issued by the corporate sector. Net purchases have come to an end in December 2018 and the stock of corporate bonds held by the Eurosystem amounts to EUR 270 billion in August 2019, compared to the EUR 2 090 billion for the PSPP. The aim of this programme was to decrease the financing costs for the real economy. To that end, the ECB did purchase investment-grade euro-denominated bonds issued by non-bank corporations established in the euro area.

There are only a few recent analyses assessing the impact of the CSPP on corporate prices. According to the ECB (2018), the announcement of the programme has contributed to decrease the corporate bond spreads for eligible assets but also for non-eligible assets (Figure 2) on impact. It may also have stimulated the supply of bonds by the private sector.

³ The programme was initially limited in size and was expected to be temporary. Yet, it has been extended several times and has become a major tool in the strategy of the BoJ. Actually, the BoJ does not directly purchase stocks in the primary or secondary market but instead buy assets issued by funds (ETFs) which invested in stocks with the aim to replicate the Tokyo Stock Price Index (TOPIX) or the Nikkei 225 stock average.

Figure 2: Corporate bond spread before and after the CSPP announcement



Sources: Bloomberg and ECB calculations.

Notes: The indices include only senior unsecured bonds. In the left panel, the blue bars denote average spreads between 1 April 2015 and 9 March 2016 and the yellow bars denote the average spreads between 10 March 2016 and 31 December 2017. Corporate bond spreads are measured by the Z-spread.

Source: ECB.

Now that on 12 September 2019 the ECB has re-activated the CSPP, it could set a target for riskier purchases. It might also follow the path of the BoJ and buy stocks instead of corporate bonds. There may be two channels through which a QE for firms would be effective. First, it would reduce risk premia and lower the cost of funding for corporate, stimulating investment. The increase in stocks might also increase the collateral value of assets held by firm, relaxing the financing constraint. Second, the rise in asset price would trigger a positive wealth effect for households stimulating private consumption.

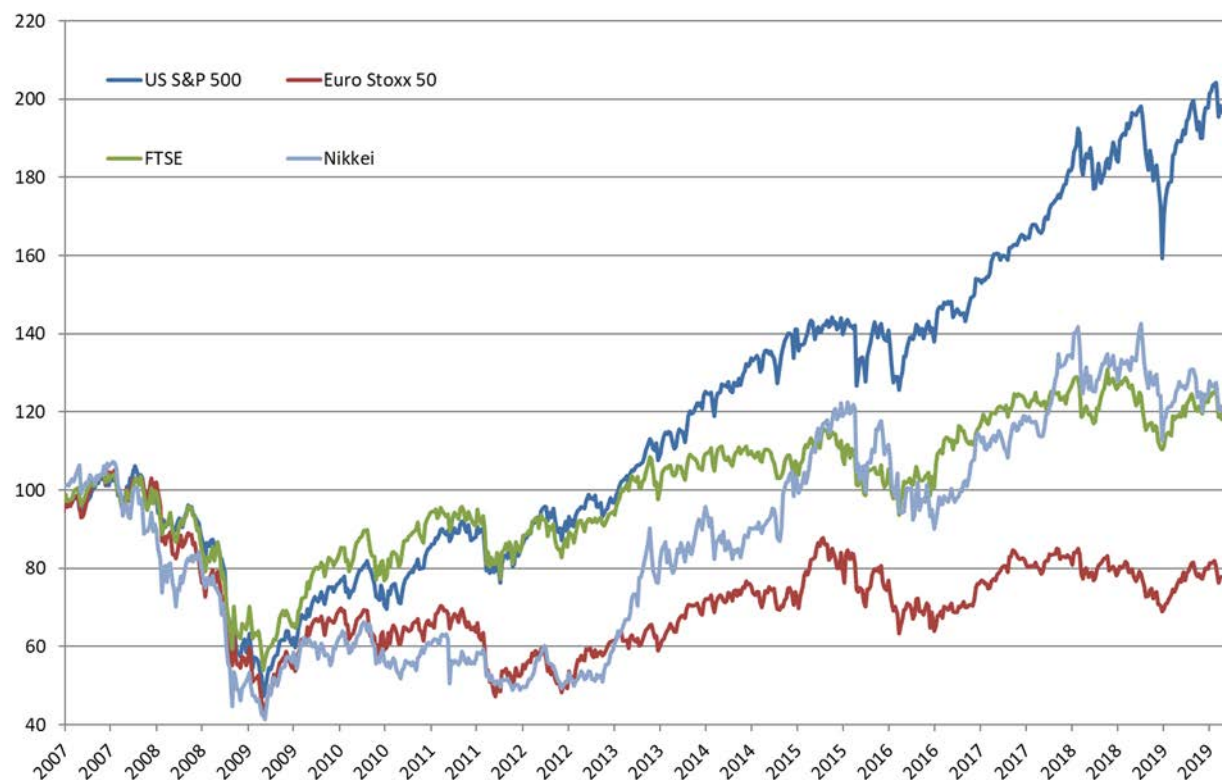
It may be noticed that this strategy has been promoted by Roger Farmer (2019) who suggests that central banks should target asset prices. Here, the purpose may be not only to stimulate the economy by easing funding conditions and creating a positive wealth effect for households but also to enhance financial stability. The central bank would aim to mitigate excessive developments in stock markets. The main argument raised by Farmer is related to the social inefficiency of capital markets. According to his view, stock purchases would not create price distortions because free competition in capital markets does not lead to an efficient allocation of capital. During boom periods, stock markets may be characterised by waves of optimism that create bubbles. Conversely, during bust periods, pessimism would lead to under-shooting of asset prices. Stock price purchases by the central banks would therefore help to send signals that would improve financial stability and cool down the economy when it is overheating or stimulate demand when asset prices are depressed. The argument is close to the one of those advocating for a “leaning against the wind” policy, through which central banks should modify the monetary policy strategy and target asset price. It would involve an automatic reaction to asset price deviations.⁴ The timing of these purchases is then crucial as central

⁴ See Smets (2014) for a recent survey of the debate.

banks must avoid to amplify boom-bust cycle and instead, should try to mitigate these cycles. To that end, in the US context to which Farmer refers, it would not be relevant for the Federal Reserve to implement such a programme as it risks amplifying the stock price boom. The peak reached by S&P 500 in the summer 2019 is twice as high as the peak reached before the Global Financial Crisis. The question may arise differently in the EA as the rise in stock prices has been less steep (Figure 3). It must yet be noticed that even if the “leaning against the wind” strategy is a crucial debate; it goes beyond the discussion relative to the available instruments at the disposal of the ECB in order to make the stance of monetary policy more accommodative. In the current situation, the ECB considers measures aiming to sustain aggregate demand and increase inflation. The potential opportunity of stock purchases should then be considered according to their effectiveness.

Are stock purchases a relevant strategy in the euro area? As mentioned above, the expected effect would depend on the reduction of the risk premia for corporates and the wealth effect for households. If the wealth effect is weak, as it is generally supposed for most EA countries, stocks purchases may fail to stimulate aggregate demand. Besides, the effect would be more favourable to households holding stocks and therefore it may increase inequalities as agents holding financial assets are generally wealthier. Furthermore, it may be less attractive in countries where banks funding is more important than market funding, as it is the case for most EA countries. If firms financing decisions mainly rely on bank funding, the reduction of the cost of financing may essentially come from the collateral channel. Considering the potential side-effects (creating bubbles and increasing inequalities), the purchase of stocks may not be the first best option for the ECB.

Figure 3: Stock price indexes



Source: Eikon Thomson Reuters. 2007 = 100.

2.3. QE to households

There are different reasons why QE might not be effective in the EA to increase consumer spending. First, households' holdings of liquid assets are larger than household debt, so lower ECB policy rates translate into lower deposit rates and household revenues and could reduce household spending. Second, households in the EA hold less in equities relative to income than US households, so the wealth effect on consumer spending from higher stock market valuations is small compared to that in the US.

The housing collateral channel may not be at work in the EA because the downpayment constraint for mortgages is far tighter than in the US. Chauvin and Muellbauer (2013) for France, Geiger et al. (2014) for Germany and Boone and Girouard (2004) for Italy have pointed out a negative effect of higher house prices on aggregate household spending. Higher house prices push non-owners to save more for the mortgage downpayment, while the housing value of existing owners does not yield significantly higher spending, given the lack of access to home equity loans and cheap mortgage refinancing. Overall, higher house prices do not seem to increase consumer spending.

In addition, because QE pushes bond yields lower (or prices higher), this policy tends to have adverse distributional implications: it transfers more money towards the wealthy who hold the housing or financial assets whose prices are boosted by QE. Since they have a lower marginal propensity to consume, the general equilibrium effects for the bottom of the distribution are low. In the EA, the distribution issue is also at work between countries with asset purchases favouring larger countries (see section 2.1).

The Positive Money introductory statement about the Bank of England policies offers a clear summary of QE limits⁵:

"The money created through QE ends up in property and financial markets, and does little to support investment in businesses which create jobs. So even though the Bank has been creating billions of pounds, wages have remained low, and ordinary people don't see the benefit. And because assets are disproportionately owned by the rich, QE has benefited the top 5% of people by as much as £100k each. Higher asset prices mean more financial instability and inequality, as well as higher house prices for everyone."

One option for the ECB to overcome these limits is to consider a lump-sum transfer to citizens. Such a strategy would be similar to the image of helicopter money – printing money and distributing it to the public. One option would be to transfer money to governments, which could then decide how best to attribute it based on marginal propensities to consume and financial constraints. But the EA rules prevent the ECB from financing government spending.

Another option would be to provide all citizens with a transfer from the ECB. Nothing in the EA rules forbids the ECB from undertaking such an independent action. The objective would be to fund directly household spending by increasing disposable income. In practice, national central banks could use social security identifiers or electoral registers. In addition, policymakers could use the average outstanding amount on current accounts together with household debt registers to determine financial constraints and marginal propensities to consume. The implications for the balance sheet size could be permanent or transitory depending on whether the central bank plans to debit a fraction of this amount over the following years or not. In more technical terms, this cash transfer could take three different forms. First, it can be seen as a zero-coupon perpetual bond such that the amount is never redeemed, so the effect on the central bank balance sheet is permanent.

⁵ <https://positivemoney.org/what-we-do/qe-for-people/>.

Second, it could be a negative interest rate fully amortised bond such that a fraction only of the principal – the amount transferred initially – is redeemed years after years up to the maturity date. As in the first case, the net transfer to households would be positive. Third, it could be a more standard zero interest rate fully amortised bond. In that case, the net transfer would be null but the profile of the reimbursement would enable to loosen the budgetary constraint of constrained households during the period of economic slack. This would be equivalent to a zero interest rate consumer loan. Depending on which types of transfer the central bank chooses to implement (i.e. whether it would take the form of permanent net transfers or not), this policy would increase household debt or not and would have a permanent effect on the central bank balance sheet.

There is an important difference between the ECB implementing a lump-sum transfer per-adult-citizen as part of monetary policy and governments doing this as traditional fiscal policy. Politicians could over-spend before an election to influence voters thus creating a “political” business cycle. That is one reason why the ECB is not allowed to directly finance government spending. That could be different with an independent central bank transferring cash to households as part of its mandate to reach its inflation target.

One may assume that it is important that people believe that transfers are permanent for these transfers to be the most effective. Ricardian equivalence may indeed reduce the effectiveness of fully amortised bond since households would increase their savings as these bonds must eventually be repaid. However, the assumption that consumers are fully forward-looking and internalise future repayments in their budget constraint when making their consumption decisions may not be valid when consumers are financially constrained. In addition, future repayments could start at a later date, when financial constraints are looser. Finally, even in the case of a fully amortised bond, one with negative interest rates would generate a net transfer to households. This is exactly what LTRO and TLTRO produce when the deposit facility rate is below zero.

About the implications for the central bank balance sheet, it is important to add that the central bank could also offset the effect of this policy on the size of its balance sheet by selling bonds back to the private sector on its asset side.

One argument against QE to households refers to moral hazard of two types. First, in the case of an over-leveraged private sector, households would reduce their efforts to de-leverage on the expectation that money printing would always come at rescue, which would increase future risks. Second, such a policy may undermine incentives to work and would magnify the inactivity trap. In the case of one-off unexpected transfer, this argument seems weak. In addition, this argument neglects that conventional monetary policy and QE involve raising asset prices, which benefits wealthier households. QE to households would rebalance the monetary stimulus towards the lower end of income and wealth distribution.

The literature on the impact of temporary income shocks on consumption is vast (see e.g. Agarwal and Qian, 2014; Arellano, Blundell and Bonhomme, 2017; Baker and Yannelis, 2017; Commault, 2019; Johnson, Parker and Souleles, 2006; Kan, Peng and Wang, 2017; Misra and Surico, 2014; Parker et al., 2013; Souleles, 1999, 2002). For instance, Johnson et al. (2006) study the 2001 tax rebate in the US and show that between 20 and 40 % was spent in the quarter in which the cash was received – and about another third in the quarter afterwards. Parker et al. (2013) analyse the 2008 tax rebate and find that households spent between 12-30% of their payments on nondurable goods during the three-month period of payment receipt, and a significant amount more on durable goods, primarily vehicles, bringing the total response to 50-90% of the payments. Such evidence contradicts simple textbook versions of the permanent income hypothesis of consumption. This is confirmed for Japan, the US, and the UK by Aron et al. (2012), for Germany by Geiger et al. (2014) and for France by Chauvin and

Muellbauer (2013). The implication is that between 40 and 60% of a transfer would be spent fairly quickly. The US studies find evidence of heterogeneity between households, with poorer households and those with mortgage debt having higher propensities to consume.

This suggests that in Germany, where households hold more deposit, the spending impact could be less strong than in Spain, Portugal or Greece, where many households are financially constrained. According to Muellbauer (2014), the effects would be between 1.1% to 2% of GDP in Spain, Portugal, and Greece but probably much lower at 0.5% in Germany.⁶

⁶ The calculation is based on the following assumptions. Suppose in Spain, Portugal, and Greece, 60% of a EUR 500-transfer is spent in the first year. With annual GDP per adult of around EUR 28,000, EUR 20,000 and EUR 15,000 respectively in Spain, Portugal, and Greece, this would imply a 1.1% of GDP boost in Spain, 1.5% in Portugal, and 2% in Greece. Assuming 40% is spent in Germany in the first year, and GDP per adult of around €42,000, the boost in Germany would be around 0.5% of GDP.

3. TRADEOFFS AND CONSTRAINTS RELATED TO QE EXTENSIONS

3.1. Technical versus political constraints

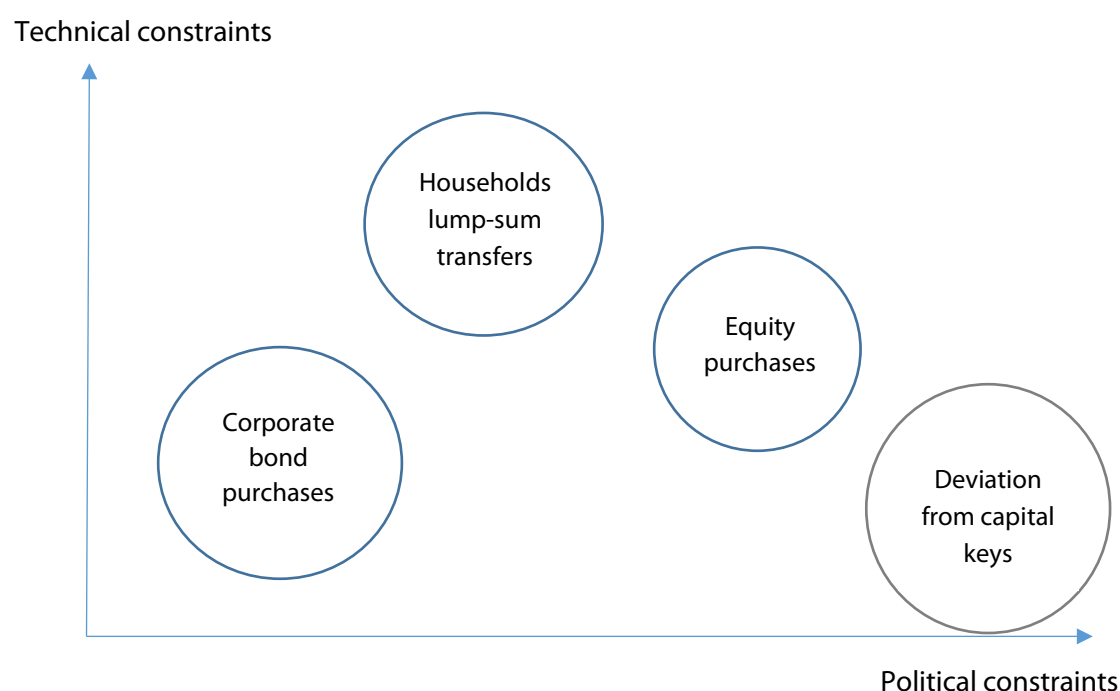
One way to discuss the feasibility of the proposed measures to fulfil the ECB mandate of an inflation around 2% is to compare the technical and political constraints associated with them. As a reference point, we consider the proposition of implementing standard QE (the PSPP programme) but deviating from capital keys. Blot and Creel (2017) suggests that the distribution of sovereign debt purchases could be based on GDP or public debt weights within the euro area. One could also imagine that the distribution is based on the distance of each national inflation rate to the ECB target such that the stimulus needed in each country is appropriate to reach the ECB mandate. In any case, the marginal technical constraints compared to the current PSPP are weak⁷ whereas the political constraints are huge since such a mechanism would introduce a form of redistribution (or risk-sharing) within the EA between countries.

Overall, the technical and political constraints would depend on the implementation characteristics of the three proposed measures. Buying riskier corporate bond purchases should not pose any big problems in terms of technical constraints. The ECB already buys some as part of the APP and CSPP. The biggest issue would be to assess the appropriate level of risks tolerated for the sustainability of the central bank balance sheet against the appropriate level of risks needed to sustain economic activity and inflation. In terms of political constraints, these should be quite small since the ECB already does so and nothing in the EA rules forbids the ECB from doing so.

In comparison, household lump-sum transfers would raise more technical concerns. The main one will consist in identifying unique individuals in order not to transfer cash twice to the same individuals. In order to maximize the effectiveness of the policy by targeting low-income individuals with higher marginal propensities to consume, the central bank would need to target current accounts with low average outstanding amounts. Finally, the choice of fully amortised loans requires to set a schedule for the debit of the different payments. In terms of political constraints, such a liquidity provision is very similar to LTRO or TLTRO so the only difficulty is to move the cursor from commercial banks to households but nothing in the EA rules forbids the ECB from doing so.

⁷ Technical constraints may even be lower than under the current PSPP as the allocation key based on public debt weights would be less exposed, by construction, to the scarcity of public bonds.

Figure 4: Technical versus political constraints



Source: Authors.

Last, equity purchases represent a different form of securities that central banks are not used to holding in their balance sheet. In contrast with loans or bonds (that are debt contracts), equity involve some property rights. This raises two issues at least, one about corporate governance, the second about market neutrality. Should central banks take part of the decision process of firms and how should they differentiate between firms within a given sector? In terms of technical constraints, equity purchases do not look much more complicated than corporate bond purchases. However, the political constraints could be much higher as such purchases would induce public stakes in private firms and would be seen as partial nationalisation. These issues could be solved in the case of purchases of equity shares with no voting rights. Moreover, and in order not to run counter to European Union competition laws, the ECB could have to buy uniform shares of firms within a given sector.

3.2. Interactions with fiscal policy

Whatever the instrument, monetary policy interacts with fiscal policy. In normal times, when central banks set the target for the overnight interest rate, three interactions with fiscal policy may be identified. First, changes in the policy rate are expected to be at least partially passed-through other interest rates at all maturities. Monetary policy involves increases and decreases of Treasury yields for bills and bonds modifying directly the cost of public debt. Second, as the objective of monetary policy is to promote price and macroeconomic stability, it influences the economic outlook and indirectly the conditions of public debt sustainability. Besides, monetary and fiscal policies also interact through their transmission to the economic activity. It may give rise to conflicts or to a lack of coordination when these two separate authorities do not consider externalities. Finally, the transmission of monetary policy on asset prices, interest rates and inflation may have consequences

for wealth and income inequalities. Whether those redistributive effects are significant or not is an empirical issue that has not yet been settled (Colciago, Samarina and de Haan, 2018).

These interactions have been strengthened with the implementation of unconventional measures. Beyond the channels identified for standard measures, which still hold for unconventional measures, purchases of public debt amplify the fiscal consequences of monetary policy as it modifies the conditions for debt sustainability as central banks hold a substantial share of the state debt (Orphanides 2018).⁸ This situation may require closer coordination between the fiscal and monetary authorities to avoid bad equilibria. On the one hand, the reduction of central banks' balance sheets must be smoothed to avoid a surge in sovereign yields constraining fiscal space. On the other hand, unsustainable fiscal policies would entail risk on central banks, exposed to a drop of asset prices. The re-activation of QE would bring central banks to hold more public debt. The redistributive effects are also amplified if the asset price effect of assets purchases are stronger.

Goodfriend (2011) has criticized some unconventional measures claiming that they entail an implicit fiscal transfers for the agents who have benefited from targeted operations or asset purchases. Central banks have indeed purchased private assets or granted loans at extended maturity and sometimes with looser collateral requirements and issued central bank reserves in return. As central banks are generally independent but public authorities, those reserves are public liabilities. Consequently, those operations may substitute for fiscal policy decisions and according to Goodfriend (2011) should have been taken by an elected and accountable body.

These criticisms may be put forward again whether the ECB decides to implement QE measures for firms or households. In that case, the ECB would either buy private assets (securities or stocks) or proceed to lump-sum transfer to citizens. In both cases, the ECB would issue central bank money (either reserves or banknotes). Here, those operations would be qualified as a monetary policy actions. Yet, the government could also decide to purchase corporate sector assets and reduce permanently taxes for households and issue public debt as a counterpart. This second case involves a fiscal policy measure. The main difference between the first two cases relies on the financing of the operation, which may not be neutral if the rise in public debt increases interest rates. Actually, the monetary and the fiscal policy action may be combined so that the government decides to buy private assets (securities or stocks) or grant a lump-sum transfer to households and issue debt which is then purchased by the central bank through standard QE (purchases of public securities) operations. Such a policy has the same accounting and economic impact. However, they may not have the same political implications.

With QE for firms and households, decisions and the technical details of the implementation are taken independently by the central bank. The strategy might be criticised as the ECB would clearly lack accountability since those operations would entail a fiscal transfer. It would bring central bankers in the realm of fiscal policy although the Governing Council is not an elected body. When the measure is implemented by the fiscal authority, it may benefit from public support and if not, the government would not be re-elected as they are directly accountable to the citizens. Yet, to be financed by central bank money, it involves a strong coordination between the government and the central bank reducing the independence of the central bank.⁹ Consequently, QE for firms and

⁸ The effect of balance sheet policies on a larger part of the interest rate term structure interacts with the debt management operations generally conducted by the Treasury or an agency dedicated. The objectives of these two institutions are different since the central bank has a goal of price stability while the debt management agency seeks to minimize the cost of debt service (Blommestein and Turner, 2012).

⁹ The modern monetary theory (MMT) is the extreme version of this trade-off since in that case, monetary policy is fully passive. This theory argues that the government should expand fiscal policy to reach social (full-employment) and potentially environmental objectives and finance spending by creating money.

households leads to a trade-off between the lack of accountability of an implicit fiscal transfer and the need for closer cooperation that would weaken the independence of central banks.

4. CONCLUSIONS

As claimed recently by Swanson (2018) for the Federal Reserve, it seems that monetary policy in the euro area is not constrained and that further stimulus may be implemented if needed. In this briefing paper we have reviewed and discussed the options at the disposal of the ECB. QE may be re-activated and reshuffled. New purchases of sovereign bonds would decrease sovereign yields but they are yet already at historical low levels in some countries so that a re-activation of the PSPP might be better oriented to higher yields, which imply modifying the weighting scheme of assets purchases to further decrease existing sovereign risk premia. An alternative would be to innovate with a QE for firms or households that would be achieved either through private asset purchases (securities or stocks) or through a lump-sum transfer to households. Considering that firms mainly rely on banks for financing decisions and that estimations of the wealth effect in the literature suggest that they are weak, the effectiveness of a QE for firms is uncertain. QE for households has never been implemented but has recently received much support in the policy debate.

Each of these options entail technical and political constraints. The effectiveness of an additional stimulus also remains an issue. A lot has already been done by the ECB. It has clearly contributed to the recovery of the euro area. The unemployment rate has been reduced and is now very close to the pre-crisis level. The estimation of the current economic slack is yet uncertain. Despite the improvement of the economic situation, the inflation rate has not converged towards the 2% target. Furthermore, the indicators of expected inflation have recently plummeted. As price stability is the first objective for the ECB, this recent downward trend is necessarily an issue. There is a need to understand the reason of this low inflation in the euro area but also in other industrialised countries. If it is to the persistence of economic slack, additional stimulus is clearly needed and the ECB might consider one or several of the options described in this briefing paper. But the stimulus may need to be complemented by an expansionary fiscal policy. Coordination between monetary and fiscal policy can be a more powerful tool to stimulate the economic activity and to deal with the increased risk of economic slowdown. The ECB has clearly a role but should not be considered as the only player at stake. The low inflation may also be related to structural economic changes. Wage dynamics might have been stifled by labour market policies that have increased competition among workers and reduce their bargaining power. Increased job insecurity is another channel which contributes to keep wage at low level. Here, monetary policy is not the appropriate tool to push wages and prices higher.

As stated by Mario Draghi in August 2014 in Jackson Hole, “we need action on both sides of the economy: aggregate demand policies have to be accompanied by national structural policies”. Monetary and fiscal stimulus may be needed but it may also be complemented by structural policies improving job security.

REFERENCES

- Agarwal, S. and W. Qian (2014). "Consumption and Debt Response to Unanticipated Income Shocks: Evidence from a Natural Experiment in Singapore." *American Economic Review* 104.12, pp. 4205–30.
- Amamiya, M. (2017), "History and theories of yield curve control", Keynote speech at the Financial markets Panel Conference, Bank of Japan, January 11.
- Arellano, M., Blundell, R., and Bonhomme, S. (2017). "Earnings and Consumption Dynamics: A Nonlinear Panel Data Framework." *Econometrica* 85, pp. 693–734.
- Aron, J., J. Duca, J. Muellbauer, K. Murata and A. Murphy (2012). "Credit, housing collateral and consumption in the UK, U.S., and Japan", *Review of Income and Wealth* 58 (3), 397–423.
- Baker, S. and C. Yannelis (2017). "Income Changes and Consumption: Evidence from the 2013 Federal Government Shutdown." *Review of Economic Dynamics* 23, pp. 99–124.
- Barbon, A., and V. Gianinazzi (2018), "Quantitative Easing and Equity Prices: Evidence from the ETF Program of the Bank of Japan", <https://ssrn.com/abstract=2925198>.
- Bernanke, B. (2017), "Some reflections on Japanese monetary policy", paper for presentation at the Bank of Japan, May 24.
- Blommestein, H.J. and P. Turner (2012), "Interactions between Sovereign Debt Management and Monetary Policy under Fiscal Dominance and Financial Instability", *OECD working papers on sovereign borrowing and public debt management* n° 3.
- Blot, C., and J. Creel (2017), "Policy decentralization at the ECB", *In-depth Analysis*, European Parliament's Committee on Economic and Monetary Affairs, September.
- Blot, C., J. Creel and P. Hubert (2018), "Monetary policy with transitory vs. permanently low growth", *In-depth Analysis*, European Parliament's Committee on Economic and Monetary Affairs, November.
- Blot, C., J. Creel and X. Ragot (2019), "Euro at 20, a concise critical assessment", *In-depth Analysis*, European Parliament's Committee on Economic and Monetary Affairs, January.
- Boone, L. and N. Girouard (2002). "The Stock Market, the Housing Market and Consumer Behaviour", *OECD Economic Studies* No. 35, 2002/2, 175-200.
- Burriel, P. and A. Galesi (2018), "Uncovering the heterogeneous effects of ECB unconventional monetary policies across euro area countries", *European Economic Review*, 101, 210-229.
- Charoenwong, B., R. Morck, and Y. Wiwattanakantang (2019), "Asset Prices and Corporate Responses to Bank of Japan ETF Purchases", *NBER Working Paper* 25525.
- Chauvin, V. and J. Muellbauer (2013). "Consumption, household portfolios and the housing market: a flow of funds approach for France", presented at Banque de France, Dec.
- Colciago, A., Samarina, A., & de Haan, J. (2018). Central bank policies and income and wealth inequality: A survey. *Journal of Economic Surveys*.
- Commault, J. (2019). "Does Consumption Respond to a Transitory Income Shock?", mimeo SciencesPo.
- Dell’Ariccia, G., P. Rabanal and D. Sandri (2018), "Unconventional monetary policies in the Euro area, Japan, and the United Kingdom", *Journal of Economic Perspectives*, 32(4), Fall, 147-172.

- Diaz del Hoyo, J.L., E. Dorrucci, F. Heinz and S. Muzikarova (2017), "Real convergence in the euro area: a long-term perspective", *ECB Occasional Paper* No 203, Frankfurt am Main, December.
- Farmer, R. (2019): "Central bank equity purchases: an idea whose time has come", Roger Farmer's blog, 2 August.
- Fiorelli, C. and V. Meliciani (2019), "Economic growth in the era of unconventional monetary instruments: a FAVAR approach", *Journal of Macroeconomics*, forthcoming.
- Geiger, F., J. Muellbauer and M. Rupperecht (2014). "The Housing Market, Household Portfolios and the German Consumer", mimeo Bundesbank, DFG and IMF conference, Eltville, June 5-6.
- Goodfriend, M. (2011) "Central Banking in the Credit Turmoil: An Assessment of Federal Reserve Practice", *Journal of Monetary Economics*, 58(1), pp. 1-12.
- Harada, K. and T. Okimoto (2019), "The BOJ's ETF Purchases and Its Effects on Nikkei 225 Stocks," *RIETI Discussion Paper*, 19-E-014.
- Hattori, T. (2018), "Do fixed-rate purchase operations by the Bank of Japan control the yield curve? Evidence from high-frequency data", March, <https://ssrn.com/abstract=3028405>.
- Hattori, T., and J. Yoshida (2019), "Return of the Bond-Price Support Regime: Bank of Japan's Dual Bond-Purchase Program", May, <https://ssrn.com/abstract=3396251>.
- Johnson, D., Parker, J., and Souleles, N. (2006). "Household Expenditure and the Income Tax Rebates of 2001." *American Economic Review* 96.5, pp. 1589–1610.
- Kan, K., Peng, S., and Wang, P. (2017). "Understanding Consumption Behavior: Evidence from Consumers' Reaction to Shopping Vouchers." *American Economic Journal: Economic Policy* 9.1, pp. 137–53.
- Misra, K. and Surico, P. (2014). "Consumption, Income Changes, and Heterogeneity: Evidence from Two Fiscal Stimulus Programs." *American Economic Journal: Macroeconomics* 6.4, pp. 84–106.
- Miyao, R. and T. Okimoto (2017), "The Macroeconomic Effects of Japan's Unconventional Monetary Policies", *RIETI Discussion Paper*, 17-E-065.
- Muellbauer, J. (2014). "Combating Eurozone deflation: QE for the people", in *Quantitative Easing, Evolution of economic thinking as it happened on Vox*, CEPR Press, Chapter 20, 163-173.
- Okimoto, T. (2019a), "Trend Inflation and Monetary Policy Regimes in Japan", *Journal of International Money and Finance*, 92, 137-152.
- Okimoto, T. (2019b), "The Bank of Japan's exchange-traded fund purchases and implications for the future", VoxEu, 13 June.
- Orphanides, A. (2016), "Fiscal Implications of Central Bank Balance Sheet Policies", Institute for Monetary and Financial Stability, working paper n° 105.
- Parker, J., Souleles, N., Johnson, D., and McClelland, R. (2013). "Consumer Spending and the Economic Stimulus Payments of 2008." *American Economic Review* 103.6, pp. 2530–53.
- Smets, F. (2014). "Financial stability and monetary policy: How closely interlinked?", *International Journal of Central Banking*, 10(2), 263-300.
- Souleles, N. (1999). "The Response of Household Consumption to Income Tax Refunds." *American Economic Review* 89.4, pp. 947–958.

- Souleles, N. (2002). "Consumer response to the Reagan tax cuts." *Journal of Public Economics* 85.1, pp. 99–120.
- Swanson, E. T. (2018). The federal reserve is not very constrained by the lower bound on nominal interest rates (No. w25123). National Bureau of Economic Research.

With the economic slowdown in the Euro area, questions arise as to whether the ECB retains some economic and political margins for manoeuvre after a decade of active policies. In this note, we highlight three possible monetary policy developments. We discuss their pros and cons according to four dimensions: political constraints, technical constraints, independence and interactions with fiscal policy.
