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“Knowns and unknowns of monetary policy instruments: implications for monetary policy strategies”

Keynote speech by Klaas Knot at the EBI Policy Conference ‘Banking in Europe; a political, a monetary and a supervisory perspective’
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At the European Banking Institute’s policy conference of 14 November Klaas Knot was invited for a keynote speech. In this speech, Klaas Knot stated that our knowledge of unconventional monetary policy tools is still less developed than our understanding of conventional interest rate policies. In line with his recent endorsement of the call for a formal review of the ECB’s monetary policy strategy under the new ECB-presidency, he invited the audience to be the cartographers of the ocean of the yet uncharted monetary policy.

Ladies and gentlemen,
Thank you for the invitation to hold this keynote address.

We are drawing closer to the end of the year in which the ECB has been celebrating its twentieth anniversary. Typically, this type of event leads one to look back and reflect on the lessons learnt over time. And to evaluate how the lessons learnt can be taken on board in future endeavors. Indeed, the year has seen many conferences and papers dedicated to the tale of the ECB's first two decades. For European central bankers, the second of these two decades has been particularly challenging.

In the last decade, the ECB has been navigating uncharted waters with unconventional monetary policy, just like Magellan, Sir Francis Drake and Columbus. We were not without compass, nor without a clearly set course. But nevertheless, the waters we navigated were new to us. No maps were available. And, again like those famous explorers, we were vigilant, alert and prudent. Now that we seem to have reached a harbor of some sort, and a new captain is aboard, we should consider charting the unchartered. We should draw maps of the coasts we discovered. We should mark where the sea monsters live. We should be the cartographers of unconventional monetary policy.

For such reasons, I have recently endorsed the call for a formal review of the ECB's monetary policy strategy under the new ECB-presidency. In a speech in New York last month, I discussed in this context the challenges arising from incomplete control of the variable that is of our main interest; which is, of course, inflation.[1] Today, I want to reflect on the role of the unconventional monetary policy instruments that have been deployed to deal with the global financial crisis and its low inflation aftermath.

At the start, the use of unconventional tools very much came down to learning on the job. Most of the instruments were new when they were introduced and beforehand their effects were to a large extent unknown. The uncertainty was also due to the difficult circumstances in which central banks had to operate: financial intermediation was impaired and inflation dropped significantly below our aim of below but close to 2%. To address this, central banks started communicating more clearly on future policy rates, took policy rates into negative territory and engaged in balance sheet policies to complement conventional policy rate cuts.

Now, after a decade of experiences and new academic research, we definitely know more about unconventional monetary policy tools. For one, all of our measures have contributed to a significant easing of financial conditions, thereby supporting the euro area economy. Yet, inflation has remained below our aim for an extended period of time. As I have argued in New York, in my view this can be largely ascribed to increased persistence of the inflation process and a declining trend in some of the underlying components of inflation. Not so much to a lack of accommodative financial conditions to which all of our instruments continue to contribute.

All lessons learnt, I will argue today that our knowledge of unconventional monetary policy tools is still less developed than our understanding of conventional interest rate policies. Our newly developed analytical tools tell us that unconventional measures have effects that derive largely from specific circumstances. Or, as economists say: "their impact is state-dependent". The effects of unconventional

[1] "The quest for policy scope: Implications for monetary policy strategies", speech at The fourth annual high-level conference Racing for Economic Leadership: EU-US Perspectives, New York, 16 October 2019.

instruments depend on the situation and therefore can also differ over time. For policymakers the key challenge then is to assess which circumstances - or states - apply, before deciding on the most appropriate set of instruments to deploy. In the real world and in real time, policymakers will face uncertainties when making this assessment. The question on how to deal with these uncertainties should feature prominently in an upcoming evaluation of the ECB's monetary policy strategy. I will posit that policymakers should consider applying more caution in deploying unconventional instruments that are subject to more uncertainty, while acting more forcefully with conventional instruments where our knowledge is more developed.

When monetary policy works

To explain in more detail what I see as the main uncertainties with respect to unconventional monetary policy tools, let me first step back just five years in time, by quoting former Fed Chair Ben Bernanke. He famously quipped that balance sheet instruments, such as QE, work in practice, but not in theory.[2] Indeed, central banks implemented unconventional monetary policy instruments at a time when the workhorse macroeconomic models could not be used to assess their expected impact. The models typically had a zero lower bound on interest rates, excluding the possibility of a negative nominal policy rate. Modelers struggled with a "forward guidance puzzle", which implied that communication on future policy rates had implausibly large effects on the economy. And last but not least, financial transmission channels like the ones that pass-through the banking sector were poorly modelled.

Since Bernanke's quote, a burgeoning academic literature has increased our understanding of them. We now typically talk about the *effective* lower bound of policy rates, which can be below zero. Models with incomplete information now show that forward guidance is useful, although not almighty. The modelling of the financial sector is more advanced. Furthermore, academic research has mapped out the circumstances in which balance sheet policies can have an impact on the economy. So we can now conclude that they can have an impact in practice and in theory.

That being said, the exact circumstances in which balance sheet instruments are effective warrants some further detail. In the last decade many different types of balance sheet instruments have been implemented by central banks. The literature tells us there is one feature that binds them: frictions in financial markets that imply imperfect asset substitutability or market segmentation. These frictions are crucial for these instruments to have an impact on financial conditions. Such imperfections can be thought to exist between any two types of assets, giving rise to different risk premia, such as a term premium on long-term bonds, a risk spread on corporate bonds and a liquidity or safety premium on liquid and safe bonds.

These frictions shape the impact of central bank interventions on financial conditions. The main message from the theoretical literature on central bank balance sheet policies is that central banks can alleviate financial frictions by intervening directly in financial markets. By increasing its role as an intermediary, a central bank can effectively suppress risk premia, which leads to an easimngof financial conditions for households and firms.[3] This is actually what we have observed in practice. However, there is an important catch: the relevant frictions may not only emerge as a consequence of temporary market

[2] Bernanke, B (2014), "A Conversation: The Fed Yesterday, Today and Tomorrow", The Brookings Institution, 16 January.
[3] See for instance Gertler and Karadi (2015), Monetary policy surprises, credit costs, and economic activity, American Economic Journal, 7(1), 44-76.

disfunctioning, but they may also reflect more structural underlying problems, that monetary policy measures cannot resolve.

These considerations have also been highlighted in a recent report of the Committee for the Global Financial System.[4] It provides an extensive overview of the international experiences with unconventional monetary policy tools since the crisis. A main message of the report is that "a proper design and sequencing of unconventional monetary policy tools depends on the origins of the shocks affecting the economy. Different shocks disrupting the monetary transmission may require different monetary policy tools. Consequently, unconventional monetary policy tools are more effective if they are tailored to the structure of the economy, the legal and institutional specificities in a particular jurisdiction, and the economic shocks prompting their use." This is a comprehensive summary of what to think of what economists refer to as state-dependency.

Some situations present larger challenges for central banks than others. The CGFS-report flags that policymakers should be conscious of the potential risks that are entailed in a prolonged use of unconventional monetary policy tools. These could be political economy concerns, as well as the implications for moral hazard in the private and public sectors and for financial stability more generally. In this regard, I agree with the report's conclusion that unconventional monetary policy tools are more effective when accompanied by appropriate supervisory, prudential and fiscal policies.

Challenges in the EMU context

In the EMU, the financial frictions that determine the effectiveness of balance sheet policies are subject to one further intricacy. We are a monetary union of sovereign states without a euro area wide common safe asset and where government debt is issued at the national level. As such, we are facing 19 issuers of sovereign debt, implying a total of 19-1=18 sovereign risk premia. Additionally, at the height of the euro area debt crisis, and, as a consequence of the sovereign-bank nexus, some jurisdictions were confronted with a risk premium associated with the possibility of that member state having to leave the euro: so-called redenomination risk. This made it clear that in the EMU, financial frictions may emerge along national lines.

Those frictions also reflect underlying macroeconomic differences at the national level, or heterogeneity in financial structures. While, in theory, this provides the ECB with a wide range of options to influence financial conditions, it also complicates the identification and the nature of shocks. Shocks may for instance emerge from euro area-wide changes in risk-sentiment. But shocks may also originate from national structural weaknesses. If the central bank would respond to the latter, it intervenes in areas where other players have a responsibility to act. This highlights an important dilemma for monetary policymakers. On the one hand, central banks may see a need to intervene to provide more policy accommodation. But, on the other hand, by doing so they may prolong or even exacerbate underlying problems.

Lessons learnt for monetary policy strategies

I have argued that every challenge and situation calls for its own unique assessment and specific set of instruments. Against this backdrop, central bankers will not be able to give you an exhaustive list of what

[4] CGFS (2019), Unconventional monetary policy tools: a cross-country analysis.

instruments should be used in case of all potential future contingencies. However, I do think that, so far, our experience with the new measures has taught us some broader lessons that are relevant for future monetary policy strategies. One key lesson is that central banks can act forcefully on those fronts where our knowledge is most developed.

First, this concerns the conventional monetary policy tools. The ECB has demonstrated that zero is not the effective lower bound for the policy rate. Needless to say, uncertainties and challenges remain. While policy rates can go below zero, they may hit what has become known as the reversal rate[5]: the level of the interest rate below which the negative effects on the banking sector start outweighing the positive effects. In that situation, lowering rates further may actually imply that monetary transmission becomes impaired. An environment that policymakers do not want to venture in.

Second, central banks can act forcefully in an environment in which shocks and frictions in the economy can be clearly identified. By reducing the term premium and credit spreads in bonds markets through asset purchases, central banks have significantly eased financial conditions. The extended monetary policy interventions by the ECB taken in the aftermath of the sovereign debt crisis, have removed most financing constraints for borrowing and spending by firms and households. This has supported aggregate demand. At this juncture, one might argue that financial conditions are not really an impediment to economic activity and for inflation to increase.

Third, unconventional monetary policy measures are effective if other policy areas contribute decisively to solving underlying structural problems in the economy and financial sector. This can, for instance, prevent that the monetary transmission mechanism loses its efficacy by a lack of capital or the persistence of legacy assets on banks' balance sheets. Resolving those issues can, for example, reinforce the effects of the targeted long-term refinancing operations that the ECB is offering to banks to support the supply of credit at the present juncture.

Having said this, monetary policy may wish to display more inertia – by which I mean caution or carefulness - in deploying policy instruments on those fronts where our knowledge is less developed. This applies to less conventional policy tools, of which the effects are still not fully appreciated, both in phasing-in and the phasing-out. A more inert approach by the central bank is also warranted if the nature of shocks and frictions in the economy cannot be clearly identified. Frictions may reflect structural underlying weaknesses in economies or the banking sector, of which the root cause cannot be addressed by monetary policy. A cautious monetary policy response is also appropriate, if there is a risk of complacency in other policy areas. For example when monetary policy measures lead to delayed efforts to shore up bank balance sheets or implement structural reforms at the national level.

The EMU perspective

The dilemma on when to act forcefully and when to apply caution in a context of instrument uncertainty is of clear relevance for central bankers worldwide. Policymakers should consider to apply more caution in deploying unconventional tools that are subject to uncertainty, for example because their effects depend on shocks and frictions that cannot be clearly identified in real time. Given the intricacies of

[5] Brunnermeier and Koby (2018), The reversal rate, NBER Working Paper No. 25406.

monetary policy in a monetary union, I believe this may be of particular relevance in an upcoming review of the ECB's strategy.

At the same time, in the ECB's case, we can draw comfort from the enhancements in the functioning of EMU that have been implemented in the last decade. This includes the establishment of the European Stability Mechanism, the European Banking Union and first steps towards a Capital Markets Union. These institutions contribute to align the incentives for action and the policy measures of other players with those of monetary policymakers. This will reduce the dilemmas for the central bank to employ balance sheet instruments. Their use can then be tailored more easily to circumstances where they are most effective. In that sense, it is clear that monetary policy in the euro area is helped by further steps to move to a more complete economic and monetary union.

And speaking about European institutions: imagine what maps Sir Francis Drake, Vasco da Gama and Columbus could have drawn when we would have cooperated. In their times, Sir Francis Drake explored for Elizabeth I of England and for her alone. Vasco da Gama carefully drew maps of his trip round Cape Horn for the Portuguese king only. And Cristopher Columbus, a native of Genoa, was hired by and thus worked solely for the Spanish King and Queen. But we, you, brave explorers of the monetary policy waters, we work together. We can combine our lessons learned. We can together combine our sketches and work on one clear map. Let's be the cartographers of the ocean of the uncharted monetary policy.