Olli Rehn: Whither r*? The outlook for the natural rate of interest under short-run inflationary pressures and structural shifts

Policy keynote speech by Mr Olli Rehn, Governor of the Bank of Finland, at the Bank of Finland and CEPR Joint Conference 'Monetary Policy in Times of Large Shocks', Helsinki, 16 June 2023.

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Ladies and Gentlemen, Dear Friends,

It is my great pleasure to welcome you to Helsinki and to this timely conference on "Monetary Policy in Times of Large Shocks", jointly organized by the Bank of Finland and the Centre for Economic Policy Research.

Last year at the time of this conference, we were in the middle of the energy crisis caused by Russia's unjustified war against Ukraine. Euro area inflation had just risen above 8% and the growth outlook had turned highly uncertain.

Much has happened since then, also in monetary policy. The ECB has acted consistently to bring inflation back to its target. The key interest rates have been raised 8 times by a total of 4 percentage points, latest yesterday by 25 basis points. The ECB's key policy rate is now at 3.5 percent.

Euro area inflation has proved more persistent than expected despite falling energy prices and easing supply bottlenecks. The persistence of inflation is due to gradually increasing labor costs, which are becoming a dominant driver of inflation. However, with energy inflation set to become increasingly negative through 2023 and food inflation somewhat moderating, headline inflation is expected to continue its decline towards 2.2% in 2025, as forecasted by Eurosystem staff.

Euro area economic activity broadly stagnated at the turn of the year but has remained quite resilient. Consumers are still benefitting from savings accumulated during the pandemic. Uncertainty over energy prices has declined and fiscal easing measures have partly compensated the loss of real income due to high inflation. At the same time, supply bottlenecks have almost vanished.

The Governing Council's future decisions will continue to follow a data-dependent approach. They will ensure that the key ECB interest rates will be brought to levels sufficiently restrictive to achieve a timely return of inflation to the 2% medium-term target and will be kept at those levels for as long as necessary.

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Dear Friends,

This outlook, however, calls for a longer-term perspective. Once inflation has been aligned with the 2% target, will interest rates remain at higher levels – once coined

"normal" – in a more permanent manner? Or should we expect the persistently low interest rates, observed post-2008, to return and be our "new normal" again? This obviously depends on the natural rate of interest, or r* in short.

The natural rate of interest is the real interest rate that supports the economy at maximum output and full employment while keeping inflation constant. It is the equilibrium rate and dividing line between expansionary and contractionary monetary policy. Essentially, it is determined by structural factors, which, however, can be overturned at times by transitory economic shocks.

This observation has two major policy implications.

Firstly, a structurally low r* does not rule out temporary episodes of high inflation. Transitory shocks can generate persistent inflationary pressures, which – if not counteracted by monetary policy – entail the risk of high inflation through the feedback of expectations and wages. This underscores the importance of the ongoing monetary tightening and of the commitment to restore low and stable inflation.

Secondly, transitory high inflation and a structurally low r* can coexist. In other words, an episode of high inflation alone does not necessarily imply the reversal of low r* over longer horizons. Even though it may be tempting to extrapolate the current situation to the future, we cannot assume that it automatically marks the end of the long-standing secular decline of the natural rate.

So, whither r* – what should we think about it at this point?

Assessing its level is challenging as it is unobservable and can only be estimated. When thinking about whether the natural rate has remained low, we need to look at the factors which were believed to have caused the low level. Factors typically viewed as important include demographic change, an increase in inequality and the slowdown in productivity growth. These demonstrate that the secular drivers of r* are inherently structural, which is why a major reversal in just a few years seems unlikely.

We thus have reason to assume, at least as a baseline, that the natural rate will remain close to the pre-pandemic levels once the current inflationary pressures subside. This implies that the challenges for monetary policy, particularly from the effective lower bound, are likely to persist. This underlines the importance of strategic reviews conducted by central banks just before the inflationary shocks.

This view on the natural rate is also shared more broadly, as reflected in the most recent IMF world economic outlook and in the Fed's recent update of the Holston-Laubach-Williams estimate of r*. This measure suggests its level for advanced economies would hover around 1% or somewhat below currently.

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While abrupt reversals of the secular drivers of r* are unlikely, the economies have nonetheless been undergoing several important shifts. One of these concerns productivity growth.

Discussion on a potential reversal of the productivity slowdown emerged at the onset of the COVID-19 crisis when hopes surfaced that firms would increase digitalization and thus boost productivity. While the use of digital communication technologies and remote work has indeed transformed working life, the productivity effects of these changes are currently assessed to be rather small.

The pandemic may also have weighed on investment in innovation. For instance, euro area business R&D investment decelerated in 2020. If this downward adjustment in investment is pronounced, it could lead to a deceleration of growth in the economy through hysteresis effects on total factor productivity, at least in some countries.

The energy crisis, triggered by Russia's illegal and brutal war in Ukraine, is another major recent shift. While higher energy prices can sustain inflationary pressures through second round effects and potentially weigh on economic activity more broadly, the related green transition may generate productivity gains over longer horizons. This would apply particularly if the transition to cleaner energy fosters a wave of green innovation with positive externalities for the wider economy.

Another ongoing structural shift with monetary policy implications is the increased use of artificial Intelligence (AI). To the extent that AI constitutes a general-purpose technology, like, for instance, personal computers, its potential productivity effects may be immense.

The impact of AI on the natural rate of interest is highly uncertain at this point but will most notably depend on the labour market response. In contrast to previous disruptions, AI holds the potential to displace workers across the skill and income distribution, including high-skilled workers.

Perhaps the most important challenge posed by AI is the potentially significant increase in inequality between displaced workers and those remaining in employment and benefiting from AI in a labor-augmenting way. This potential intensification of inequality could further weigh on the natural rate.

In addition to the structural shifts shaping r*, we have to be mindful of the risk of new shocks emerging that may move the natural rate in either *direction. For instance, geopolitical tensions could intensify deglobalization and geoeconomic fragmentation, which would also be reflected in r*.*

Another key challenge is high public debt. The long-term trajectory of r* is a crucial determinant of fiscal sustainability, while unsustainable public debt may raise the natural rate.

In sum, current information suggests that the natural rate is likely to hover close to the pre-pandemic levels. This said, what is certain is that the ongoing secular shifts and the risk of new shocks leave the outlook for r* highly uncertain.

In any case, policy makers need to form an opinion on r* and long-term real rates. How can this challenge be addressed?

In my view, policy makers and researchers need to be guided by the following three principles: **modesty, openness and flexibility**.

As to **modesty**, researchers should acknowledge the limitations and the uncertainty regarding both the underlying assumptions and the estimates of the natural rate. Policymakers, in turn, may have to depart from the expectation of basing their decisions on the point estimates of r*. Failing to acknowledge the high degree of uncertainty underlying r*, we risk ending up with false perceptions and policy biases.

The second principle, **openness**, may help address these challenges. As the underlying drivers of r* appear too complex to be compressed into a single estimate, assigning a path for the natural rate by following a broad-based and data-based approach may be a more effective approach. For instance, we may want to explore new indicators, such as measures of innovation activity, to gain a timely view on TFP growth.

A close and continuous dialogue between research and policy is crucial in this context. This conference provides an excellent example in this regard, as it features invited speeches and sessions that are highly policy relevant, covering key challenges for monetary policy and topical themes in e.g. fiscal policy, robotics, and wage inequality.

When it comes to the third principle, **flexibility** will remain essential in forming views on the future of r*. Most notably, flexibility is warranted to adjust our views on the natural rate over time, when new signals from its underlying forces emerge.

To conclude, estimates of the natural rate of interest r* can, to some degree, serve as a point of orientation, if policymakers acknowledge that they are only summary statistics, which distil certain aspects of the data and are subject to the underlying assumptions and uncertainties.

Measures of the natural rate should thus serve as only one of many sources of information that monetary policy should draw on when forming a view on the longer-term outlook for real interest rates.

Monetary policy should also acknowledge that r* is bound to change over time. This means that assessing the longer-term outlook for real interest rates should be considered a continuous process rather than a one-time, post-crisis stocktaking event.

Let me also stress that these principles – modesty, openness and flexibility – are essential at the current juncture, where short-run transitory forces, on one hand, and long-run secular drivers, on the other hand, are pulling r* in opposite directions.

Ladies and Gentlemen,

With these words, let me wish you a pleasant stay in Helsinki and a very productive and insightful conference. I hope that our long June days contribute both to your business and pleasure.

Thank you very much for your attention.