Quo Vadis, Federal Reserve? – Part 2

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Taylor Rule – precise formula, vague Inputs

Since 2008, the key-lending rates in the USA seem to have been significantly too low as measured by the Taylor rule. With some economists blaming Alan Greenspan's loose monetary policy as partially responsible for the financial crisis of 2008, the question is whether we are in for a déjà-vu.

As simple and elegant the Taylor rule may be when it comes to analysing the modus operandi and the drivers of the Fed's monetary policy, we also have to bear in mind its limitations. Unfortunately, the concise formula of the Taylor rule is at odds with the difficulties of determining some of its central parameters. But one thing at a time. The criticism of the Taylor rule is four-pronged:

- **Even if the Taylor rule did describe the optimum strategy of the US central bank – does it make sense to tie oneself to a fixed rule?** As a result of the monetary school of the 1960s and 1970s, it was central bank consensus for quite a while that a stable and predictable monetary policy, implemented by the so-called inflation targeting, would create the optimal outcome in the long run. In this approach, the overarching goal of the monetary policy was to achieve the inflation target. After the crisis of 2008, which had not been preceded by any phase of high inflation, this approach has been massively second-guessed. Experts demand that central banks do not only use inflation but also macro-economic imbalances as indicators when setting the key-lending rate. A comprehensive approach also takes into account the risk of bubbles on the equity and property markets, any conspicuously high credit growth, or high current account deficits.
- **Does inflation depend on the national monetary policy at all anymore, or do factors outside of the central banks' control drive the development of the price level?** For smaller, open economies like Austria, this question has always been relevant. But in the meantime, it has become relevant for large economies like the USA as well. Globalisation has led to the outsourcing of production to countries with lower production costs. The import of cheap industrial products exerts downward pressure on prices, and the more flexible labour market puts pressure on wages. Both together depress inflation, even at relatively good economic growth rates. This means that the relation between economic growth and inflation is not stable. However, the Taylor rule assumes fixed relations.

Both points were vividly discussed in the wake of the financial crisis of 2008. Since then it has also become clear that overly

low interest rates do not necessarily only manifest themselves in excessive inflation rates, but also in a destabilising increase in asset prices (e.g. property prices in Spain and the USA) as well as in the leverage. In this case, the entire approach to monetary policy that the Taylor rule hinges on would be wrong.

In addition to these structural points of criticism, there are also numerous practical ones. Many input variables of the Taylor rule cannot be empirically observed and are thus not measurable; instead, they have to be defined or estimated.

- **What inflation rate?** The GDP deflator, i.e. the change in prices of all goods and services produced domestically? The change in consumer prices? The so-called core rate of consumer prices, i.e. exclusive of the volatile components of energy and food, which are also very resilient to central bank steering? Or the change in the price of personal consumption? We know that in the USA; the central bank defines price stability on the basis of the core rate of core personal consumption expenditure (CPCE). In the Eurozone, on the other hand, the central bank resorts to a different concept for the definition of price stability, i.e. the change in harmonised consumer prices.
- **Within what period of time is the inflation target to be achieved?** One year, five years, ten years? Since it is neither possible to correct deviations of actual inflation from the inflation target within a year nor to fix them at a certain date in the future, central banks limit themselves to a medium-term horizon. Since the introduction of the euro, average inflation has been 1.7% p.a. This is in line with the central bank target of an inflation of slightly below 2%. In the USA, core inflation has been 1.7% p.a. as well over the same period of time. If one were to choose this observation period, the central bank would have missed its target of an average 2%, i.e. the monetary policy would have been too tight.
- **What is the neutral interest rate, and how stable is it?** It is practically impossible to observe the neutral interest rate. Originally the value assumed for the USA in the 1990s was 3%. Assuming an inflation target of the Fed of 2%, the neutral (nominal) interest rate should be 5%. However, in the meantime the US central bank has reduced its premise to a significantly lower value, a value that is not stable either. Four years ago, the members of the Fed regarded 4% as the long-term nominal key-lending rate (i.e. Fed funds rate), which facilitates the estimation of the neutral interest rate (https://www.federalreserve.gov/monetarypolicy/files/fomcprojtabl20130619.pdf). At the moment, this rate is at 3%. Indeed, the regional central bank of San Francisco has even taken 0% as the inflation-adjusted, i.e. real neutral interest rate (https://www.google.at/search?q=laubach+williams&rlz=1C1GCEA_enAT752AT752&oq=laubach+williams&aqs=chrome..69i57.6661j0j9&sourceid=chrome&ie=UTF-8). Including the inflation target of 2%, the neutral nominal key-lending rate would thus equal 2%. Given that the neutral interest rate tends to be denoted as r* in the models, economists have started calling the lively discussion "R-Star Wars".
- **At what level of capacity utilisation is the economy running at the moment?** The economic output gap cannot be empirically observed either. Most of our readers will have an easy intuitive grasp of this fact. What is your personal production potential? At what point are you below or above it? I would find it hard to answer these questions. The IMF estimates an output gap of 0% for the USA in 2017; the OECD estimates +0.8%; the Congressional Budget Office (i.e.an office that supports the US Congress in drawing up the budget) estimates -0.8% for March 2017, and the San Francisco Fed calculated +1.1% for March 2017.

From our point of view, this leads us to an all-clear: the extremely loose monetary policy illustrated by the Taylor rule is definitely exaggerated and due to a change in its central input parameters. The economy has changed and accordingly, the analysis tools for economic interdependencies have to be adjusted as well.

Does this mean the Taylor rule has become obsolete? And what does that mean for the assessment of the future interest rate development? We will answer these questions in the third part of our Quo Vadis series.

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