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Is the ECB's expansive monetary policy still reasonable?

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Alexander Ludwig: The ECB has reached a limit with its monetary policy. Other policy responses are needed: an expansion of fiscal measures for more investment in infrastructure and education

This text by Alexander Ludwig was published first as a guest article (in German) in the Frankfurter Allgemeine Zeitung on 13 December 2019.

The current discussion about the European Central Bank (ECB) focuses on the question of whether its low-interest policy and the programs of unconventional monetary policy (quantitative easing, QE) are appropriate considering the market environment. Essential for an answer to this question is: Does the ECB

pursue fundamental factors in its interest rate policy that influence the market interest rates? Or does it artificially distort market interest rates with its massive interventions in the bond market? As so often, it is a question of causality – what was there first, chicken or egg?

The ECB's argument for its expansive monetary policy is, among other things, that the so-called natural interest rate has fallen in recent decades and is at a very low level. The natural interest rate is an interest rate that cannot be observed on the market, where the goods market is in equilibrium and the inflation rate is stable. A monetary policy measure has an expansionary effect if the main base rates set by the central bank are below the natural interest rate. To estimate the natural interest rate level, observable variables such as market interest rates and the total productivity of an economy are used – and the question of causality raised above is back on the table.

However, this is not the central question. Rather, it is: Is the economy of the European Union currently in a kind of liquidity trap in which a further easing of monetary policy, as decided in September by a restart of the ECB's QE programs, will not have a major effect or could even be counterproductive.

Past and future perspectives

The answer to this question is closely linked to which fundamental factors are driving natural interest rates. I will show that it is important to distinguish between a past perspective and a future perspective when analyzing them. I will refer to two different approaches: The first is the empirical approach which aims to estimate natural interest rates; the second is the model-based quantitative approach. In principle, it pursues a similar goal but is more suitable for forecasting the future and analyzing which economic policy measures could raise market interest rates in the future.

My overall conclusion is that the reasons for the low natural interest rate are almost exclusively fundamental economic factors such as technological and demographic developments and, since the economic crisis of 2008, a reduction in risk-free investment opportunities. Since the ECB's monetary policy has to be based on it, the ECB's low-interest-rate policy and the QE programs were, therefore, the right response to give a short-term boost to economic activity in a crisis situation in the Euro area. In reverse, however, this also means that the same fundamental factors suggest that in the medium to long-term perspective, completely different policy reactions will be indispensable, namely those of fiscal nature. On the contrary, a further easing of monetary policy has no effect; it could even be counterproductive.

Estimates of natural interest rates are based on observable variables such as market interest rates or total production. They show that the time path of the natural interest rate is very similar to the real yields on short-term government bonds. Falling real interest rates – i.e. nominal interest rates minus the inflation rate – and thus a falling natural interest rate has been observed in all major industrialized countries since the mid-1980s. These trends have occurred on several occasions. Real interest rates declined between 1920 and 1940 and between 1960 and 1970. What is new, however, is that nominal interest rates are negative. What is also new is that the monotonous fall in real interest rates now continues for such a long period of almost 35 years. Conventional estimates of natural interest rates conclude that global interest rates have fallen by 450 basis points, from around four percent in the mid-1980s to around minus 0.5 percent today.

What are the reasons for this downturn? To investigate this, the economic literature that shaped the debate before the financial and economic crisis of 2008 is valuable. Already in the 1990s, many economists pointed out that both technological and demographic developments would lead to a long-term decline in capital market yields. This discussion, initially conducted in various facets under the keyword "asset

market meltdown" hypothesis, culminated in 2005 in Ben Bernanke's term "savings glut". According to this hypothesis, there is an oversupply of savings relative to the demand for investment goods on the world capital markets, not least because of demographic developments.

How does the demographic development influence savings formation? Rising life expectancy and falling pension levels – or growing uncertainty as to the level at which pensions will be paid in the future and what further reforms can be expected – lead to increased savings accumulation. An additional effect is that the baby boom generations in many industrial nations have additionally increased total savings in the past two decades since this generation was in the high savings phase of the life cycle – people save most between the age of 25 and 55.

Inequality reduces investment

The gap between savings and investment in global financial markets has also been exacerbated by increased uncertainty about labor market conditions and higher inequality. Uncertainty increases savings because of the so-called precautionary savings motive. Inequality reduces investment as, among other things, it weakens the average demand for consumer goods and thus hampers innovation. In the aftermath of the global financial crisis in 2008, there was also a reduction in risk-free investment opportunities for savings, as the fiscal situation in many countries has deteriorated sharply. This is reducing interest rates.

In addition to these effects, the decline of technical change and a decline in employment are pushing interest rates downwards. In Germany, the trend rate of technological progress has fallen from around 2 percent in the 1980s to around 0.6 percent today, and similar trends can be observed in all industrialized countries.

While technological change is essential for an analysis of the past, employment plays a central role especially for projections into the future. The fact that both factors drive long-term interest rates is a central finding of conventional macroeconomic models. In order to understand this, one has to consider the relationship between the size of the capital stock and the size of the flow of output– i.e. the gross domestic product – of an economy.

How can this be visualized? In very simple terms, we can think of a firm that uses large machines in factory buildings to produce tables. If the efficiency of the machines used drops, the rate of return on the capital invested in the production process drops – the return on investment thus decreases.

Although this picture presents the actual interconnections in a simplified form, it nevertheless reveals an important insight: to be able to record the effects of economic processes on the overall productivity of the capital employed and thus on overall economic returns, the ratio of the capital stock employed to total production is decisive. This ratio is determined by the so-called capital coefficient. The capital stock used in production (the stock variable) is more than three times the gross domestic product (the flow variable).

This ratio means that factors influencing the capital stock – for instance, a change in the propensity to save and invest – have a smaller influence on the return on capital than factors affecting overall production. This also reveals the close link between falling output and falling returns, which led Larry Summers in 2013 to use the 1930s term "secular stagnation" to describe this phenomenon.

The impact of monetary policy

In the context of the declining technical change, let us take Germany as an example. In an approximate calculation of the contribution to the return on capital, this effect alone – i.e., neglecting the effects of demographics on the supply of savings – leads to a decline in the returns on capital of about 2.8 percentage points.

One may raise two objections. First, those approximate calculations are inadequate – e.g., I assumed that the economy is in a long-run state of equilibrium from period to period, neglecting transition phenomena. Second, the return on productive capital has nothing to do with the natural level of interest rates. Both

objections, however, fall short. On the one hand, approximate calculations provide information about relevant orders of magnitude, and on the other hand, the total return on productive capital and the natural interest rate have to be closely aligned. If risk assessments are more or less constant, then both variables must move more or less in sync.

Together with the variables mentioned before, it is therefore not surprising that many economists conclude that almost the entire decline of the natural interest rate by the afore mentioned 450 basis points can be explained as a market result. Thus, a clear picture emerges for the analysis of the past: this decline is essentially not caused by the monetary policy of the central banks.

What will happen in the coming decades? It is very difficult to say anything about future rates of technological progress. By contrast, demographic forecasts over the next 20 to 30 years are relatively reliable. The reason for this is that the working people who are relevant for a future forecast are already born today and will either retire in the near future or enter the labor market in 20 years at the latest.

In view of the demographic development, one could now assume the following: As soon as the baby boom generation retires, savings will decrease. As a result, the overhang of savings on the global financial markets will decline and interest rates will rise again. This consideration is correct, but at the same time, it does not go far enough. On the one hand, savings ratios are still clearly positive even in old age. There are various reasons for this, for instance, inheritance motives, health risks and nursing home risks in old age. In Germany, for example, the savings rate of private households aged 25 to 55 is around 12 to 14 percent of disposable income. Above the age of 65, the savings rate is around five percent.

On the other hand, however, the more important aspect again is how the capital coefficient will develop. Decreasing savings do change the allocation of capital and thus reduce the capital stock, which supports the return on investment. More importantly, though, a decline in employment will lead to a much larger decline in overall output.

To understand the return impact of this decline, think again about our factory in which tables are produced. Suppose it takes several workers to produce a table. If, due to demographic change, the number of workers decreases and the demand for produced tables diminishes, far fewer tables will be produced. As a result, the return on capital employed decreases.

Pressure on returns on capital

Of course, this picture is again very much simplified: neither is demographic change a sudden event nor does it consider the fact that production processes can be restructured through the use of labor-saving technologies, which supports output and returns. Yet, the decline in employment observed in all industrial nations will exert further pressure on returns on capital over the next 15 to 20 years.

More complex methods are needed to draw conclusions about natural interest rates or relatively risk-free short-term returns based on the development of total return on capital. Previously, I argued that if investors' risk attitudes are constant on average, these orders of magnitude must move in parallel.

However, the latter condition does not apply: especially in demographically aging economies, the preference for risk-free investments increases on average, which lowers the level of market interest rates. As early as 2003, I used a quantitative approach based on economic theory to calculate that long-term returns on total capital in Europe would fall by around 80 basis points by approximately 2035. Because of the increased risk preference of an aging society, returns on risk-free investments would fall even more, by

around 100 basis points. Recent calculations confirm this analysis. Consequently, an analysis based purely on returns on total capital shows that the effects of the demographic change on the real interest rate tend to be underestimated.

In contrast to empirical approaches, this theoretical-quantitative approach is more suitable for investigating which factors can support returns on capital in the future. Is there a silver lining on the horizon? Yes, there is. Although it is difficult to imagine that saturated economies will experience strong leaps in growth, there are numerous factors that increase output and support macroeconomic returns.

These include increasing employment through a higher retirement age, a further increase in the employment of women and the rapid, friction-free integration of migrants into the labor market. Strengthening the quality of the labor factor through appropriate training as well as switching from production processes to labor-saving technologies also has a supporting effect on output and returns.

The role of fiscal policy

Monetary policy does not appear in this list. Why? Well, because it is powerless to affect the factors that increase output and thus support real interest rates in the medium to long term. It is just as powerless here as it was not responsible for the development of real returns in the past.

So if fundamental factors drive returns and at the same time stand for a decline in the overall output of the economy, what will cause a (further) easing of monetary policy, for example through the restart of QE in September? The answer is: it will have no real economic effects. While the programs immediately after the financial and economic crisis were extremely reasonable and the ECB, in contrast to the US Federal Reserve, may have reacted even too hesitantly at that time, monetary policy measures and the orientation of it towards natural interest rates can only influence economic activity in the short term.

However, the other factors mentioned above are responsible for the sustained stagnation in the Euro area. A further easing of monetary policy could even be counterproductive: The important sector of financial intermediaries including banks and insurance companies is badly shaken by the persistently low-interest rates. In addition, low-interest rates are a driving factor behind bubbles in property prices and stock prices. There are numerous indices for the formation of these bubbles in the mentioned markets, too.

On the contrary, fiscal policy could play an important role. Here too, however, the bolt has been shot, as there is no room for fiscal leeway in virtually all countries given the high public debt ratios. But does that really apply to all? No, with a debt ratio of around 60 percent of gross domestic product, the German national budget is doing well by international standards. In view of negative (or very low) interest rates, Germany should take on more debt in order to equip itself for the future with extensive structural and educational programs.

This kind of investment is essential: Not only because of the obvious deficits in Germany's infrastructure, but also because increased government demand would reduce overall savings, create risk-free investment opportunities, and possibly increase investment and output. All this stabilizes interest rates. So it seems that debt-financed expansion of government spending could kill two birds with one stone.

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