ECO FLASH

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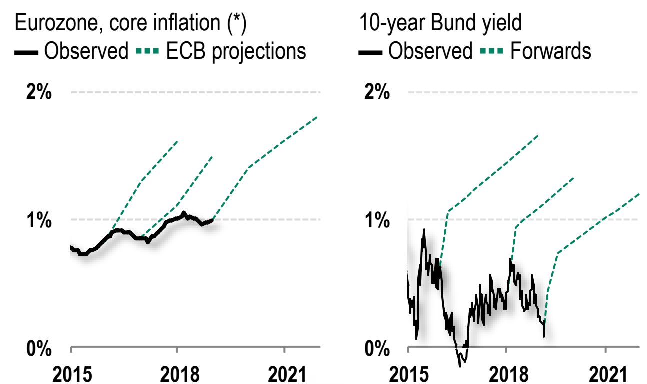
Is there still room for interest rates to rise in the eurozone?

Jean-Luc PROUTAT

- **In the eurozone, money market rates have been holding in negative territory for more than four years. The highest-rated government and corporate bonds are still yielding less than 1%.**
- **The distribution of interest rates around the zero lower bound was initially seen as an exceptional crisis adjustment mechanism, but the situation persists.**
- **Some expect this exceptional period to finally come to a close once the European Central Bank halts its net securities purchases and possibly begins to raise key rates after summer 2019.**
- **For others, the situation has definitively changed: a bit like Japan, the diminution of eurozone interest rates marks the erosion of growth potential and the quasi-elimination of inflation.**
- **In this article, we take a median stance between these two positions: the eurozone is not exactly Japan, and prevailing interest rates will not hold indefinitely at the zero lower bound.**
- **Yet the eurozone is not an optimum monetary zone, one in which transfers balance out the effects of interest rate increases varying from one country to the next. Regardless of the timeframe, key rate increases are bound to be gradual and limited in scope.**

For more than four years now, the eurozone has been operating within a regime of exceptionally low interest rates and inflation. Expectations that the situation is about to return to normal have also been repeatedly proven wrong over the past four years (see chart 1). The European Central Bank (ECB) is still claiming that core inflation (excluding food and energy prices) will double by 2021, approaching its official 2% target rate, from the current rate of around 1%.

■ **Third time's a charm?**



(*) Average annual change in the eurozone harmonised consumer price index, excluding food and energy

Chart 1 Source: Thomson Reuters, ECB

The core argument is that after the decline in unemployment, eurozone wages are finally accelerating. Per capita wage growth has risen to 2.5%, the fastest pace in ten years. The ECB sees this as a sign that prices will pick up and that it can begin to normalise monetary policy. On 1 January 2019, it halted its net securities purchases. Thereafter – by next fall at the earliest – it should be able to raise its key rates.

The concomitant upturn in inflation and interest rates is also one of the assumptions underlying the forwards curve (see right side of chart 1). By the end of 2021, they point to roughly a half-point increase in money market rates, which would

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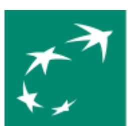

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swing back into positive territory[1]. The yield on 10-year German government bonds, the benchmark rate for long-term loans, is supposed to rise from 0.10% to 1.15%.

In the end, however, which mechanism is most likely to drive up prices? Wage pressures are a necessary condition, but they won't suffice since they can be totally or partially absorbed by corporate margins. This is currently the case in the eurozone, where a cooler business climate does not argue in favour of boosting corporate pricing power. Since summer 2018, the ratio between the GDP deflator and unit labour costs has declined, indicating that corporate profits are eroding. This trend is especially strong in Germany, where wage growth is continuing at a dynamic pace (3% slope), but mediocre business prospects are straining price formation (chart 2).

In the short term, the cyclical environment is hardly propitious for an upturn in inflation or interest rates. Once again, the ECB and the markets seem to have overly optimistic expectations. The future hasn't been written yet, and it seems worthwhile to take a look at long-term trends.

Following in Japan's footsteps?

The Japanese economy provides a textbook case of a wealthy but aging population, one that complies very closely with the steady state depicted in certain growth models (see box, page 3). In Japan, per capita capital stock is among the highest in the world: productivity gains, potential growth and inflation are all converging on zero, which has also become the norm for interest rates for the past decade (see chart 3).

The eurozone shares some of these characteristics, but the situation is not exactly the same. Europe's population is aging, but not as quickly. The working age population (15-64 age group) began to decline in 2010, whereas Japan's active population began shrinking twenty years earlier. Productivity gains and potential growth are both diminishing. According to the International Monetary Fund (IMF), Europe's growth potential is estimated at 1.5% a year, which is nonetheless faster than the 0.6% forecast for Japan. Moreover, growth could still be strong. In Japan, the employment rate in the 15-64 age group was nearly 80%, compared to only 67% in the eurozone[2]. In countries like Italy and Spain, the employment rate is still very low at about 60%.

Eurozone inflation is not zero, although at an average annual rate of 1% for the past eight years, it is less and less in line with the ECB's official target of 2%. Whereas Japan has found it very hard to pull out of a bottomless liquidity trap, despite an extremely accommodating monetary policy, in the eurozone money supply and lending aggregates have returned to a dynamic pace. For example, consumer loans are growing at an annual rate of nearly 7% and M3 money supply growth is at 4%.

In brief, underlying economic and pricing trends in the eurozone have slowed, but not so much that interest rates

Producer prices and PMI

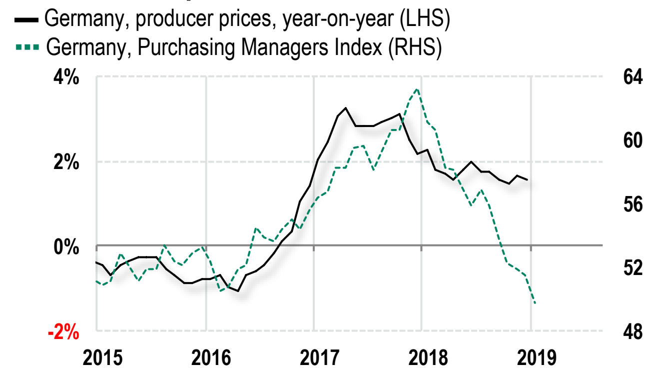

Chart 2 Source: Markit,

Japanese growth and interest rates

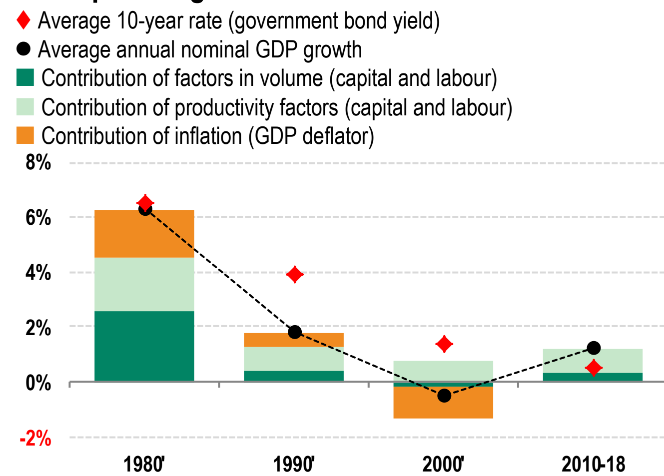

Chart 3 Source: Cabinet office, METI, BNP Paribas

Going separate ways

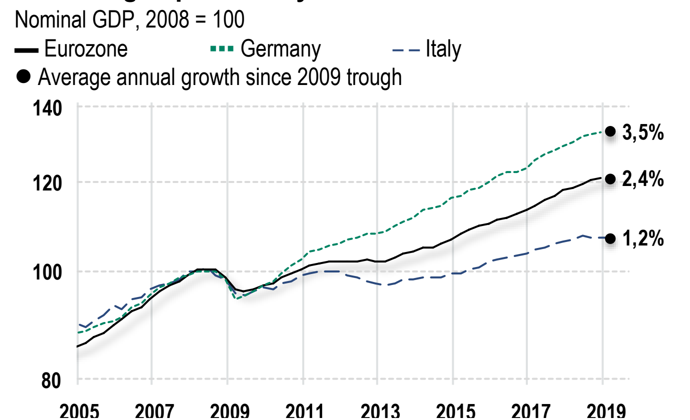

Chart 4 Source: Eurostat

should be held indefinitely near the zero lower bound. In this case, what is the equilibrium rate?

What rates for tomorrow?

In keeping with theory, for many long years the economic growth rate has served as the benchmark for interest rates. From 1998 to 2008, 5-7 year bond yields fluctuated around

[1] The 3-month Euribor rate is projected at 0.20% in December 2021, vs a spot rate of 0.30% at 20/02/2019.

[2] According to the OECD, in Q3 2018, the employment rate in the 15-64 age group was 67.4% in the eurozone and 77.3% in Japan.

4% in the eurozone, which is the same pace as nominal GDP. Thereafter, nominal GDP declined due to the financial and sovereign debt crises as well as to the demographic transition described above. It is now closer to 2.5%. Using conservative assumptions for term premiums, this would place the ECB's target rate at somewhere between 1.75% and 2%.

Yet returning to these levels will be no easy task. With the swelling of yield spreads and divergent growth rates within the eurozone (see chart 4), now more than ever it is clear that higher interest rates will not have the same impact across the board. Germany will adapt easily since it has little debt and will continue to borrow at the lower end of the yield spread. Italy, in contrast, will face a much tougher situation, since growth has stagnated and public debt has swelled by 30 points of GDP since 2008, unless we make exaggerated assumptions about its spread.

In a monetary zone that is not optimal, the notion of a neutral interest rate is not as pertinent. A 2% target based on average economic growth trends proves to be too restrictive for some, but not restrictive enough for others. To cover for the absence of transfers and to address the sovereign debt crisis, the ECB opted for a resolutely accommodative monetary policy. Without any institutional advances, this position is unlikely to change quickly. The next upward phase of the interest rate cycle is bound to be gradual and limited in scope, and 2% seems more like a ceiling than the norm.

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Growth and the equilibrium interest rate

In a steady state, the golden rule of capital accumulation indicates that the equilibrium interest rate converges with the economic growth rate.

We used a simplified model in which:
***Y**: national wealth (GDP)*
***K**: capital stock*
***N**: labour input (working population)*
***C**: consumption*
***s**: savings rate*
***d**: capital impairment rate*
***n:** growth rate of the working population*
***g**: economic growth rate*
r: natural or equilibrium interest rate*

At a constant level of available technology, GDP can be expressed as a Cobb-Douglas production function as follows:

$$Y = K^{\lambda}.N^{(1-\lambda)} \quad (1)$$

With λ and $(1-\lambda)$ the respective shares of capital and labour ($0 < \lambda < 1$).

The GDP growth rate can be written as follows:

$$g = \Delta Y/Y = \lambda.\Delta K/K + (1-\lambda).\Delta N/N \quad (2)$$

The steady state corresponds to an advanced economic phase in which capital per capita no longer increases and can be considered as a constant. This implies that capital stock grows at the same pace as the population:

$\Delta K/K = \Delta N/N = n = g$ *according to (2)*

$\rightarrow \quad (s.Y - d.K)/K = g$

$\rightarrow \quad s.Y = (g + d).K \quad (3)$

*In a steady state, savings **(s.Y)** covers capital impairment **(d.K)** and capital expenditure **(g.K)** necessary to maintain per capita capital.*

The consumption function is written as follows:

$C = (1 - s).Y = Y - sY = Y - (g + d).K$ *according to (3)*

The golden rule of capital accumulation maximises consumption in a steady state. It can thus be written as follows:

$\Delta C/\Delta K = 0$

$\rightarrow \quad \Delta Y/\Delta K - (g + d) = 0$

$\rightarrow \quad \Delta Y/\Delta K - d = g \quad (4)$

By definition, the natural or equilibrium interest rate is equal to the net marginal productivity of capital:

$\rightarrow \quad \Delta Y/\Delta K - d = r^*$

Based on (4), this implies:

$r^* = g$

Box 1 Source: According to Phelps E. (1965), *Second Essay on the Golden Rule Accumulation*, American Economic Review, Vol. 55, No. 4.

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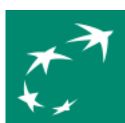

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