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The long-term equilibrium rate of interest

Marie-Hélène Duprat
Senior Advisor to the Chief Economist

Economic theory suggests the existence of an equilibrium rate of interest which balances savings and investment at full employment. Research shows that this rate fell in the aftermath of the Great recession of 2008 to now stand at a very low level. To bring the economy back to its potential, the central banks have endeavoured to ensure that actual rates do align with this theoretical rate.

The "long-term equilibrium rate of interest" (also known as the "**natural rate of interest**", the "**neutral rate of interest**", and in economic jargon "**r-star**" or "**r***"), which was first defined by the Swedish economist Knut Wicksell in his book *Interest and Prices* (1898), is the real rate of interest which **balances the supply of funds (savings) with the demand for funds (investment) at maximum output or full employment** – in other words, it is the rate that prevails when actual output equals potential output. This rate is the only one compatible with price stability.

Unobservable, the natural rate of interest is a purely theoretical construction.

Thus, the Wicksellian theory distinguishes two rates of interest:

- The equilibrium rate which is determined by real economic factors such as productivity growth or population growth and which can be likened to the rate of return on capital.
- The rate observed on the market (interest rate on bonds) which is determined primarily by monetary factors.

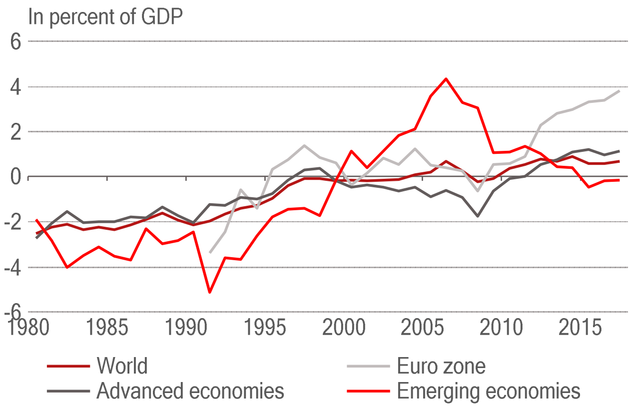
For Wicksell, money is only exceptionally neutral: most often, the rates observed in the markets deviate from the natural rate. When the natural rate is higher than the market rates, companies' positive expectations raise the expected profitability of investment projects, which gives rise to an expansion phase fuelled by investment, and inflation increases. Conversely, when the natural rate is below the market rate, capital accumulation slows down and deflationary pressures appear.

Since Wicksell's work, the natural interest rate has played a central role in the conduct of monetary policy, as it provides a valuable conceptual framework for guiding central bankers in determining their key interest rate target. In order to avoid episodes of depression / deflation or overheating / inflation, **central banks have endeavoured to bring their policy rates into line with the equilibrium rate**.

Since it is not observable, the level of the equilibrium rate is, by nature, uncertain, and estimates of this rate can vary significantly from one model to another. Although its level (or even its very concept) is a subject of debate, there is a broad consensus to consider that **the equilibrium interest rate has fallen to very low levels in recent decades in most advanced economies**. This trend decline of the natural rate is viewed as the expression of an excess of desired savings relative to desired investment.

The persistence of current account surpluses in many countries, primarily the euro area, suggests insufficient investment in these countries, offset by the flow of their savings surpluses into a handful of countries, primarily the US.

Savings minus investment



Source: Refinitiv Datastream

The **lack of "appetite" for investment compared with the appetite for savings** in advanced countries can be attributable to:

- **The deterioration of the growth potential** – which is synonymous with a decline in the real future returns on investment, and thus in the desire to invest – due to:
  - The deceleration in the active population (ageing of the population)
  - Slower productivity growth
  - The damage inflicted by the Great recession on the labour force and on productivity (the so-called "hysteresis effects")
- **The sluggishness of global demand**, which can notably be explained by:
  - A long cycle of deleveraging which has deprived the economy of a major source of demand, as indebted agents are more concerned with rebuilding their savings and eliminating their debts than increasing their investments or consumption
  - An increase in income inequalities that could favour savings, as income distribution is evolving to the detriment of agents with the greatest marginal propensity to consume
  - A climate of uncertainty conducive to an increase in precautionary savings

Since the Great recession of 2007-09, the central banks' ultra-low interest rate policies have been geared towards a key objective: **to follow the natural rate down, or else causing a recession**. Very low interest rates are today necessary to maintain aggregate demand and economic activity.

Given the structural forces at play, we can expect the equilibrium interest rate to remain low for an extended period of time.

CONTACTS

Michala Marcussen
Group Chief Economist
+33 1 42 13 00 34
michala.marcussen@socgen.com

Olivier de Boysson
Emerging Markets Chief Economist
+33 1 42 14 41 46
olivier.de-boysson@socgen.com

Marie-Hélène Duprat
Senior Advisor to the Chief Economist
+33 1 42 14 16 04
marie-helene.duprat@socgen.com

Ariel Emirian
Macroeconomic analysis / CIS countries
+33 1 42 13 08 49
ariel.emirian@socgen.com

François Letondu
Macro-sectoral analysis
+33 1 57 29 18 43
francois.letondu@socgen.com

Constance Boublil-Groh
Central and Eastern Europe
+33 1 58 98 98 69
constance.boublil-groh@socgen.com

Salma Dahir
Economist Assistant, Editing
+33 1 57 29 07 15
salma.dahir@socgen.com

Juan Carlos Diaz Mendoza
Latin America
+33 1 57 29 61 77
juan-carlos.diaz-mendoza@socgen.com

Aurélien Duthoit
Macro-sectoral analysis
+33 1 58 98 82 18
aurelien.duthoit@socgen.com

Elyas Galou
United States and United Kingdom
+33 1 57 29 43 33
elyas.galou@socgen.com

Clément Gillet
Africa
+33 1 42 14 31 43
clement.gillet@socgen.com

Alan Lemangnen
Euro Zone, France, Germany
+33 1 42 14 72 88
alan.lemangnen@socgen.com

Nikolina Nophal Bankova
Macro-sectoral analysis
+33 1 58 98 89 09
nikolina.nophal-bankova@socgen.com

Danielle Schweisguth
Euro Zone, Italy, Spain
+33 1 57 29 63 99
danielle.schweisguth@socgen.com

Edgardo Torija Zane
Middle East, Turkey and Central Asia
+33 1 42 14 92 87
edgardo.torija-zane@socgen.com

Bei Xu
Asia
+33 1 58 98 23 14
bei.xu@socgen.com

Yolande Narjou
Assistant
+33 1 42 14 83 29
yolande.narjou@socgen.com

Sigrid Millereux-Beziaud
Documentalist
+33 1 42 14 46 45
sigrid.millereux-beziaud@socgen.com

Societe Generale | SG Economic and Sector Research | 75886 PARIS CEDEX 18 | France
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