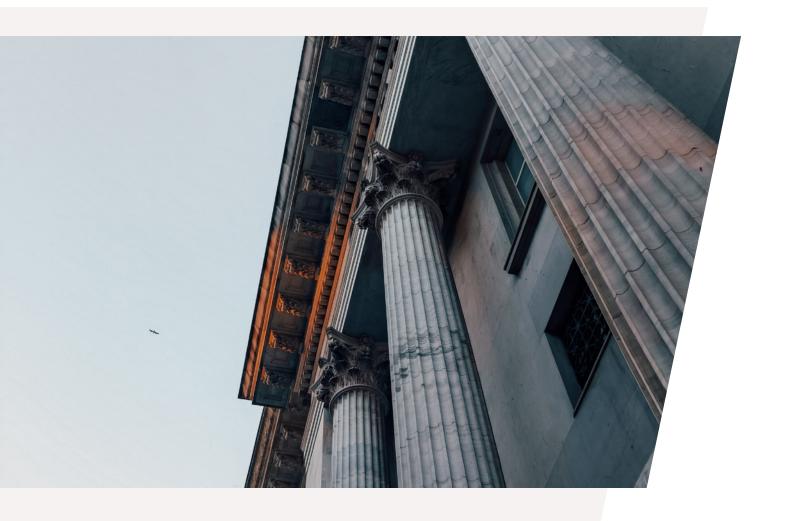


ESGnomics





Foreword

Climate change, reduced inequality and better governance are all challenges to making our world more just and sustainable in the future, and Rothschild & Co is committed to this goal.

The Group's economic research is part of this approach, providing analysis on the main risks and opportunities to which economic players are exposed. ESGnomics aims to convey in an educational manner the contributions of economics to the discussion of Environmental, Social and Governance issues.

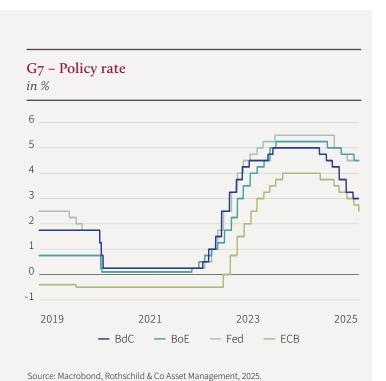
Towards a New Green Interest Rate?



Marc-Antoine Collard Chief Economist, Director of Economic Research Rothschild & Co Asset Management

Benjamin Maas Apprentice Economic Research Rothschild & Co Asset Management

The decarbonisation of energy is essential in order to achieve greenhouse gas (GHG) emission targets. While the creation of a new "green" interest rate driven by central banks is among the potential solutions, it remains complex and fraught with obstacles.



The emergence of a new "Green Rate"

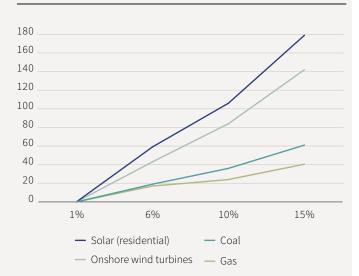
Climate change is bequeathing an enormous cost to future generations who will suffer its consequences. Yet, this cost is rarely factored into the prices of goods and services. Indeed, businesses and households that generate GHG emissions — by producing electricity or driving cars, for instance — do not truly pay for the damage caused by their pollution. To address this market failure, economists generally agree that a carbon tax would send an effective price signal whilst internalising the externalities created by emitted pollution.

However, this instrument faces numerous hurdles, chiefly political ones. The results of recent European and American elections have demonstrated a strengthening of highly hostile sentiment among electorates towards public policies that would directly increase the price of certain goods and services.

Climate change is bequeathing an enormous cost to future generations...

World – Relative increase in levelised cost of electricity

in %, depending on discount rate increases



Source: IEA, Rothschild & Co Asset Management, 2025.

such an interest rate would allow commercial banks to benefit from a lower rate...

Among alternative solutions, the use of monetary policy through the creation of a new "green" interest rate is worth highlighting, as central banks today are entirely legitimate in their concern for the planet's climatic future, given that climate change will considerably impact the evolution of price levels⁽¹⁾.

In theory, such an interest rate would allow commercial banks to benefit from a lower rate, in the form of refinancing operations, and under specific conditions, thereby encouraging them to expand their green lending⁽²⁾. These reduced-rate refinancing operations, to be referred to as Green TLTROs, would notably depend on the volume of green loans—compliant with the Green Taxonomy in the specific case of the EU⁽³⁾.

Reminder: What is a TLTRO?

A TLTRO — Targeted Longer-Term Refinancing Operation — allows a central bank to offer commercial banks longer-term loans — often three to four years — at advantageous costs, thereby encouraging lending to businesses and households.

In turn, the central bank's balance sheet increases because, on the one hand, the loans granted to commercial banks will appear as assets, and on the other hand, the excess reserves of these banks will increase the central bank's liabilities.

The advantages...

The post-pandemic inflationary shock forced central banks to swiftly raise their key rates and implement significant monetary tightening. While necessary to control inflation, this policy could nonetheless hinder the energy transition by making financing more difficult for capital-intensive sectors.

Indeed, the cost of capital plays a key role in investment decision-making and, when high, can be a major obstacle to accelerating climate action. The substantial investment needs of clean energy technologies make them more vulnerable to variations in the cost of capital than fossil fuel alternatives⁽⁴⁾.

⁽¹⁾ Rothschild & Co Asset Management, « Banques centrales et climat: enjeux et leviers d'action », ESGnomics, 2024

⁽²⁾ Lonergan, E., $\scriptstyle\rm w$ Dual interest rates always work $\scriptstyle\rm w$, Philosophy of Money, 2019

⁽⁴⁾ Montague, C., K. Raiser, M. Lee, « Bridging the clean energy investment gap: Cost of capital in the transition to net-zero emissions », OECD Environment Working Papers, 2024

Eurozone - ECB balance sheet

in bn €



Source: Oxford Economics, Rothschild & Co Asset Management, 2025.

Thus, higher interest rates threaten the success of major international plans aimed at decarbonising the economy and could consequently have long-term negative effects, notably on price stability.

Research indicates that lowering the interest rates for green projects would be more effective than increasing those for brown investments to accelerate the shift towards renewable energy⁽⁵⁾. This solution would involve less intervention in the fixed income markets compared to efforts required to penalise brown investments by raising their borrowing costs.

In short, tackling climate change through a green interest rate could ease the conduct of monetary policy, as investments in renewable energy, grids, and storage would lead to lower and more stable energy prices in the future, aligning with the mandates of central banks⁽⁶⁾.

Researchers from the Bank of Spain have concluded that the development of a large share of the country's renewable energies could lead to a 50% reduction in wholesale energy prices in Spain by 2030⁽⁷⁾. More broadly, the International Energy Agency has reached a similar conclusion, estimating that without growth in solar and wind capacities between 2021 and 2023, average wholesale electricity prices would have been around 3% higher in 2021, 8% higher in 2022, and 15% higher in 2023, resulting in an increase of €100 billion in electricity supply costs across the entire European Union⁽⁸⁾.

... but a design to be devised...

Nonetheless, designing Green TLTROs raises several challenges. First, the spread — i.e. the difference between the key rate and the green rate — must be established. This spread should be large enough to be incentivising and thus contribute to reducing the costs of eco-friendly projects and enhancing their profitability. However, an excessively large spread could represent a cost to the central bank. Indeed, when the central bank lends money to commercial banks, it mechanically creates excess reserves recorded as liabilities and held by commercial banks. Although this has not always historically been the case, central banks generally remunerate these reserves. Consequently, a Green TLTRO would represent a cost to the central bank if it lends at an interest rate lower than the rate paid on excess reserves.

Moreover, the size of the proposed TLTROs could not be unlimited. The offer could notably be restricted by establishing a strict and selective definition of what qualifies as a green loan.

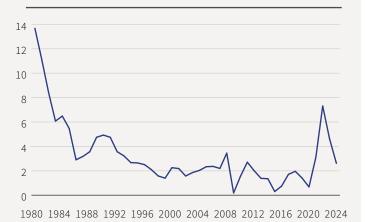
Regarding the maturity of the loans, the longer the term, the greater the incentive for banks to grant green loans. Conversely, a maturity that is too long could make monetary policy adjustments to control inflation more difficult.

⁽⁶⁾ Lagarde, C., $\mathrel{<\!\!\!\!<}$ Policymaking in a new risk environment $\mathrel{>\!\!\!>}$, BCE, 2024

⁽⁷⁾ Quintana, J., 'The impact of renewable energies on wholesale electricity prices', Bank of Spain Economic Bulletin, 2024

⁽⁸⁾ International Energy Agency, Renewable Energy Market Update , 2023 $\,$

Advanced economies – Inflation rate in %



Source: Macrobond, Rothschild & Co Asset Management, 2024.

Central banks must retain the freedom to adjust their key interest rates in periods of inflationary pressure...

Finally, the programme's duration must be determined. A five-year duration could, for example, be appropriate, as the programme must be sufficiently long to send a strong signal to banks and encourage them to embed this incentive into their long-term lending strategies[®].

... and credibility to be preserved

A green interest rate must stimulate green borrowing without compromising the conduct of monetary policy. Thus, the main risk associated with implementing a Green TLTRO lies in its potential incompatibility with a central bank's short-term mandate based on inflation.

Central banks must retain the freedom to adjust their key interest rates in periods of inflationary pressure, which may compel them to tighten monetary policy. Yet, such policy could be destabilised by the existence of another, lower and thus more accommodative green interest rate, potentially making the return to the inflation target longer and more complex.

Moreover, since the 2008 financial crisis, the balance sheets of central banks have become instruments of monetary policy. Although the transmission mechanisms are not fully understood, a reduction in the balance sheet acts like a restrictive monetary policy, whereas an increase is accommodative. The implementation of Green TLTROs would lead to an expansion of the balance sheet, at a time when the vast majority of central banks wish to reduce it and return to a regime where the size is calibrated to the real liquidity needs of the financial system⁽¹⁰⁾.

In short, while the creation of a new green interest rate driven by central banks is among the avenues being explored to achieve GHG emission targets, it remains a complex undertaking fraught with obstacles.

Disclaime

Non-advertising, simplified and non-contractual document. The information, comments and analyses in this document are provided for information purposes only and should not be construed as an investment or tax advice, or as an investment recommendation from Rothschild & Co Asset Management. The information/opinions/data mentioned in this document considered legitimate and correct on the day of publication, in accordance with the economic and financial environment in place at that date, are subject to change at any time. Although this document has been prepared with the greatest care from sources that Rothschild & Co Asset Management believed to be reliable and in good faith, no representation or warranty, express or implied, is made as to information accuracy or completeness, which are indicative only and are subject to change without notice. Rothschild & Co Asset Management has not independently verified the information contained in this document and cannot be held responsible for any errors, omissions or interpretations of the information contained in this document. This analysis is only valid at the time of writing of this report

Furthermore, given the subjective nature of certain analyses, we draw your attention to the fact that any information, projections, estimates, anticipations, assumptions and/or opinions are not necessarily put into practice by the management teams of Rothschild & Co Asset Management, or its affiliates, who act according to their own convictions. Certain forward-looking statements are prepared on the basis of certain assumptions, which are likely to differ either partially or totally from reality. Any hypothetical estimates are, by their nature, speculative and it is possible that some, if not all, of the assumptions relating to these hypothetical illustrations may not materialise or may differ significatively from current determinations.

Rothschild & Co Asset Management, organized under the laws of France, registered with the Trade and Companies Register of Paris RCS Paris 824 540 173. A management company licensed by the Autorité des Marchés Financiers under N° GP 17000014, having its registered office 29, avenue de Messine, 75008 Paris, France.

No part of this document may be reproduced, in whole or in part, without the prior written permission of Rothschild & Co Asset Management, under pain of legal proceedings.

About Rothschild & Co Asset Management

As the specialised asset management division of the Rothschild & Co group, we offer personalised asset management services to a broad client base of institutional investors, financial intermediaries and distributors. Our development is focused on a range of open-ended funds, marketed under four strong brands: Conviction, Valor, Thematic and 4Change, and leveraging our long-term expertise in active management with conviction as well as in delegated management. Based in Paris and established in 9 European countries, we manage more than 38 billion euros and employ nearly 170 people. More information at: www.am.eu.rothschildandco.com

