

Winners and losers from the ECB's negative interest rate policy

Seven years ago, the European Central Bank pushed policy rates into negative territory. It has led to substantial redistributive effects within the eurozone banking sector



Seventh anniversary of negative rates...

It is already [seven years ago](#), June 2014, that the European Central Bank (ECB) first imposed a negative rate on the reserves that banks hold at the ECB. The ECB started cautiously, by charging $\text{€}10\text{bp}$ on reserves; the latest increase to $\text{€}50\text{bp}$ dates back to September 2019. Targeted Longer-Term Refinancing Operations ([TLTROs](#)) were also announced in June 2014. Initial TLTRO operations came with a “traditional” positive interest rate: banks paid interest on their TLTRO borrowing from the ECB. Starting with TLTRO-II in 2016, the ECB added an incentive for banks to extend business and non-mortgage household credit, by making the TLTRO-rate dependent on bank lending performance. Banks could obtain negative rates up to the deposit rate (then -40bp), depending on their lending performance.

Reserves and TLTROs are distributed unevenly across the Eurozone

It is important to note that bank reserves and bank funding requirements were, and are, not distributed evenly across the eurozone. This has to do with different domestic characteristics of banking sectors and broader financial markets, and international investor preferences.

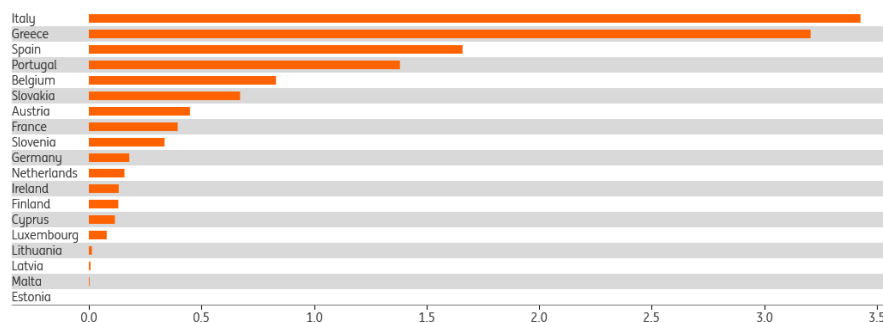
Since the onset of the pandemic, TLTRO funding has become attractive even for banks that are awash in funding and excess reserves

Generally speaking, banks in northern eurozone countries tend to hold relatively more excess reserves, while banks in southern countries have less of those, and in turn have been more keen to borrow funds from the ECB. Since the onset of the pandemic in 2020, the ECB has relaxed TLTRO lending benchmarks and rate rewards to such an extent that TLTRO funding has become attractive even for banks that are awash in funding and excess reserves. This has led to a strong take-up of TLTRO-III loans by northern banks as well since mid-2020.

Costs and gains of negative rates illustrate redistributive effects of monetary policy

Due to the uneven distribution of reserves and TLTRO borrowing across the eurozone, the costs and gains of negative rates are very different across countries. The chart below shows the ratio of funds borrowed from the ECB (mainly TLTRO, but also including other refinancing operations) over bank reserves deposited at the ECB, per country. We take August 2019, preceding the announcement of TLTRO-III and tiered reserve remuneration in September 2019. The Greek and Italian banking sectors at that time had borrowed more than three times the amount from the ECB than they had deposited. Ratios in Spain and Portugal were well above 1. The German, French and Dutch banking sectors, on the other hand, had ratios well below 0.5, meaning their ECB borrowing was less than half (in the case of Germany and the Netherlands less than a fifth) of the reserves they had deposited with the ECB.

Ratio of refinancing operations over reserves, Aug '19



Source: Macrobond, ING

This country-level data on TLTROs and excess reserves also allows us to attach a price tag to the observed differences. We hasten to add that this should not be seen as a country-by-country cost-benefit analysis of the full set of ECB monetary policies. Those policies have been, and continue to be, aimed at eurozone-wide inflation and economic growth. And indeed all eurozone individuals and companies have benefited. By avoiding deflation and keeping rates low for an extended period of time, the ECB has fostered economic growth and financial stability.

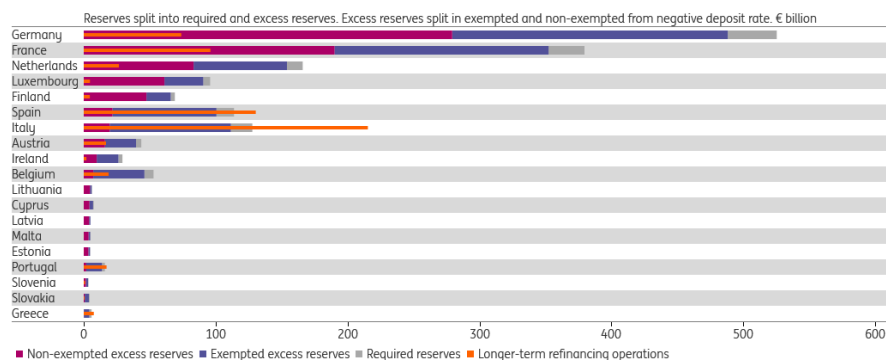
Pursuing monetary policy goals comes at the cost of redistributive effects, in this particular case across banks

These positive effects of broad monetary policy are not what we want to call into question here. Instead, by zooming in on the negative rate revenues and expenses associated with reserve holdings and TLTROs, we can calculate the narrow gains and losses of negative rate policies for banks. This illustrates that pursuing monetary policy goals comes at the cost of redistributive effects, in this particular case across banks.

Reserves: more excess in the North

Banks have limited control over the quantity of reserves they deposit at the ECB, as we have [explained elsewhere](#) (in short: roughly half of the reserves the eurozone banking sector collectively holds, are a direct consequence of ECB asset purchases, and thus beyond banks' control). From 2014 until October 2019, the negative rate imposed on reserve holdings was quite straightforward: it was calculated over excess reserves – reserves over and above what [regulation requires banks to hold](#) given their deposit liabilities issued. In October 2019, the ECB reduced the negative rate burden by introducing “tiering”. It started to calculate a [negative rate exemption](#) of (then and currently) six times required reserves meaning that, in total, seven times required reserves are exempted from negative rates. The -50bp deposit rate is imposed on the remaining “non-exempted excess reserves”. The chart below breaks up reserve holdings in required, exempted and non-exempted per country. It shows the situation in December 2019, the first “reserve maintenance period” to which tiering was applied. It's clear from the chart that at that time, negative rates were still charged on a big chunk of reserves in countries like Germany, France and the Netherlands (red bars), while the part of reserves exempted from negative rates was much bigger in relative terms for e.g. Spain and Italy (blue bars). It should be noted that the situation changed markedly in 2020, when bank reserves swelled in all countries, boosted by resumed ECB asset purchases and increased TLTRO borrowing. As a result, non-exempted reserves (red bars) have now become the biggest part of reserves in all countries.

Eurozone bank reserves at Eurosystem and sums borrowed under LTROs, year-end 2019



Source: Macrobond, ING

TLTRO borrowing: more popular in the South (until 2020)

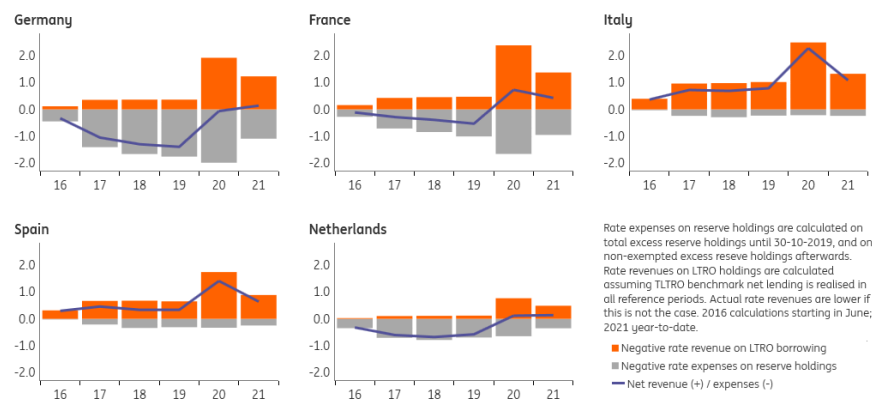
As noted earlier, the TLTRO rate has been tied to bank lending performance since 2016. Until the pandemic struck last year, the best obtainable TLTRO rate was equal to the deposit rate. Banks could (partly) offset the negative rate costs on their reserves with the negative rate revenues on TLTRO borrowing. Insofar as TLTRO borrowing exceeded (non-exempted) excess reserves, banks could even make a profit. TLTRO borrowing exceeded reserves in Spain, Italy, Portugal and Greece in the years 2016-2019.

TLTRO borrowing exceeded reserves in Spain, Italy, Portugal and Greece in the years 2016-2019

Indeed during that period, TLTRO negative rate revenues exceeded negative rate expenses on reserves for the Italian banking sector, resulting in what we call a positive narrow gain from negative rates averaging €730m/year (see chart below). For the Spanish banking sector, this was about €430m/year. The German banking sector, in contrast, booked a narrow negative rate loss of €1.1bn/year, Dutch banks around €620m/year and French banks around €360m/year.

When the pandemic struck in March last year, the ECB changed the terms of the ongoing TLTRO-III, relaxing the lending benchmark and lowering the best obtainable TLTRO rate to -100bp. This allowed banks to not only offset reserve rate costs by TLTRO rate revenues, but to actually make a positive carry – provided they met their lending benchmarks, of course. Unsurprisingly, the strong new incentive attached led to the TLTRO borrowing surge the ECB had in mind, to make sure that a lack of liquidity would not be a problem in the financial system. As a result, since June 2020, the net monthly narrow result of negative rates (TLTRO rate revenues minus reserve rate costs) has turned positive for Germany, France and the Netherlands, and has increased markedly for Italy and Spain

Annual negative rate revenues and costs for banks per country (€ tr)



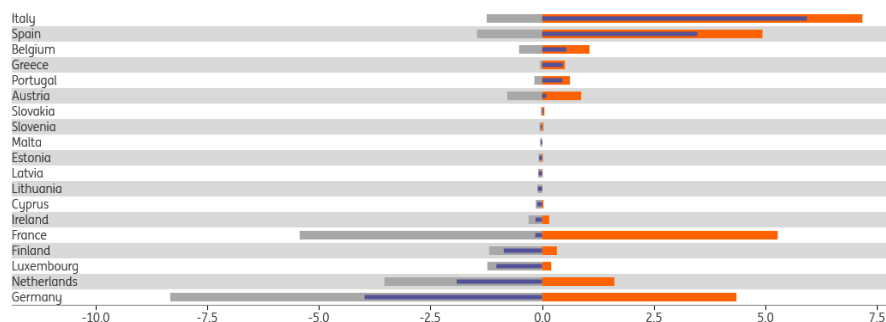
Source: Macrobond, ING

The bill, please! The cumulative result of negative rate policies

The cumulative narrow result of negative rate policies differs markedly between countries, up to €10bn between Germany and Italy

Although the monthly narrow result of negative rate ECB policies has turned positive in most countries now, the cumulative result since 2016 still differs markedly between countries, up to €10bn between Germany and Italy. The chart below shows that Italy and Spain had the highest net revenues (€5.9bn and €3.5bn per April 2021, respectively); banks in those countries both took out TLTR0 loans early and had relatively low excess reserves. Banks in Germany and the Netherlands have faced the biggest net costs, as they had relatively high excess reserves and borrowed few TLTR0 funds until mid-2020. The current (April 2021) net interest result is -€4.0bn for Germany and -€1.9bn for the Netherlands. France is in between these two groups (-€0.2bn), having both relatively high excess reserves but also higher TLTR0 borrowing.

Eurozone banks, cumulative ECB negative rate flows since June 2016 (€ billion)



Data until April 2021. Rate revenues on reserve holdings are calculated on total excess reserve holdings until Nov '19, and on non-exempted excess reserve holdings afterwards. Rate revenues on TLTRO holdings are calculated assuming TLTRO benchmark net lending is realised in all reference periods. Rate revenues will be lower if this is not the case

■ Negative rate revenues on TLTROs ■ Negative rate expenses on reserves ■ Net revenue (+) / expenses (-)

Source: Macrobond, ING

As emphasised earlier, this overview of narrow revenues and costs of rates on TLTROs and excess reserves should not be interpreted as an encompassing assessment of gains and losses of monetary policy. That said, it does show that unconventional monetary policy, like most policies, has redistributive consequences, also within the banking sector.

Author

Alissa Lefebvre

Economist

alissa.lefebvre@ing.com

Deepali Bhargava

Regional Head of Research, Asia-Pacific

Deepali.Bhargava@ing.com

Ruben Dewitte

Economist

+32495364780

ruben.dewitte@ing.com

Kinga Havasi

Economic research trainee

kinga.havasi@ing.com

Marten van Garderen

Consumer Economist, Netherlands

marten.van.garderen@ing.com

David Havrlant

Chief Economist, Czech Republic
420 770 321 486
david.havrlant@ing.com

Sander Burgers
Senior Economist, Dutch Housing
sander.burgers@ing.com

Lynn Song
Chief Economist, Greater China
lynn.song@asia.ing.com

Michiel Tukker
Senior European Rates Strategist
michiel.tukker@ing.com

Michal Rubaszek
Senior Economist, Poland
michal.rubaszek@ing.pl

This is a test author

Stefan Posea
Economist, Romania
tiberiu-stefan.posea@ing.com

Marine Leleux
Sector Strategist, Financials
marine.leleux2@ing.com

Jesse Norcross
Senior Sector Strategist, Real Estate
jesse.norcross@ing.com

Teise Stellema
Research Assistant, Energy Transition
teise.stellema@ing.com

Diederik Stadig
Sector Economist, TMT & Healthcare
diederik.stadig@ing.com

Diogo Gouveia
Sector Economist
diogo.duarte.vieira.de.gouveia@ing.com

Marine Leleux

Sector Strategist, Financials
marine.leleux2@ing.com

Ewa Manthey
Commodities Strategist
ewa.manthey@ing.com

ING Analysts

James Wilson
EM Sovereign Strategist
James.wilson@ing.com

Sophie Smith
Digital Editor
sophie.smith@ing.com

Frantisek Taborsky
EMEA FX & FI Strategist
frantisek.taborsky@ing.com

Adam Antoniak
Senior Economist, Poland
adam.antoniak@ing.pl

Min Joo Kang
Senior Economist, South Korea and Japan
min.joo.kang@asia.ing.com

Coco Zhang
ESG Research
coco.zhang@ing.com

Jan Frederik Slijkerman
Senior Sector Strategist, TMT
jan.frederik.slijkerman@ing.com

Katinka Jongkind
Senior Economist, Services and Leisure
Katinka.Jongkind@ing.com

Marina Le Blanc
Sector Strategist, Financials
Marina.Le.Blanc@ing.com

Samuel Abettan
Junior Economist

samuel.abettan@ing.com

Franziska Biehl

Senior Economist, Germany
Franziska.Marie.Biehl@ing.de

Rebecca Byrne

Senior Editor and Supervisory Analyst
rebecca.byrne@ing.com

Mirjam Bani

Sector Economist, Commercial Real Estate & Public Sector (Netherlands)
mirjam.bani@ing.com

Timothy Rahill

Credit Strategist
timothy.rahill@ing.com

Leszek Kasek

Senior Economist, Poland
leszek.kasek@ing.pl

Oleksiy Soroka, CFA

Senior High Yield Credit Strategist
oleksiy.soroka@ing.com

Antoine Bouvet

Head of European Rates Strategy
antoine.bouvet@ing.com

Jeroen van den Broek

Global Head of Sector Research
jeroen.van.den.broek@ing.com

Edse Dantuma

Senior Sector Economist, Industry and Healthcare
edse.dantuma@ing.com

Francesco Pesole

FX Strategist
francesco.pesole@ing.com

Rico Luman

Senior Sector Economist, Transport and Logistics
Rico.Luman@ing.com

Jurjen Witteveen

Sector Economist

jurjen.witteveen@ing.com

Dmitry Dolgin

Chief Economist, CIS

dmitry.dolgin@ing.de

Nicholas Mapa

Senior Economist, Philippines

nicholas.antonio.mapa@asia.ing.com

Egor Fedorov

Senior Credit Analyst

egor.fedorov@ing.com

Sebastian Franke

Consumer Economist

sebastian.franke@ing.de

Gerben Hieminga

Senior Sector Economist, Energy

gerben.hieminga@ing.com

Nadège Tillier

Head of Corporates Sector Strategy

nadege.tillier@ing.com

Charlotte de Montpellier

Senior Economist, France and Switzerland

charlotte.de.montpellier@ing.com

Laura Straeter

Behavioural Scientist

+31(0)611172684

laura.Straeter@ing.com

Valentin Tataru

Chief Economist, Romania

valentin.tataru@ing.com

James Smith

Developed Markets Economist, UK

james.smith@ing.com

Suvi Platerink Kosonen

Senior Sector Strategist, Financials

suvi.platerink-kosonen@ing.com

Thijs Geijer

Senior Sector Economist, Food & Agri
thijs.geijer@ing.com

Maurice van Sante
Senior Economist Construction & Team Lead Sectors
maurice.van.sante@ing.com

Marcel Klok
Senior Economist, Netherlands
marcel.klok@ing.com

Piotr Poplawski
Senior Economist, Poland
piotr.poplawski@ing.pl

Paolo Pizzoli
Senior Economist, Italy, Greece
paolo.pizzoli@ing.com

Marieke Blom
Chief Economist and Global Head of Research
marieke.blom@ing.com

Raoul Leering
Senior Macro Economist
raoul.leering@ing.com

Maarten Leen
Head of Global IFRS9 ME Scenarios
maarten.leen@ing.com

Maureen Schuller
Head of Financials Sector Strategy
Maureen.Schuller@ing.com

Warren Patterson
Head of Commodities Strategy
Warren.Patterson@asia.ing.com

Rafal Benecki
Chief Economist, Poland
rafal.benecki@ing.pl

Philippe Ledent
Senior Economist, Belgium, Luxembourg
philippe.ledent@ing.com

Peter Virovacz

Senior Economist, Hungary
peter.virovacz@ing.com

Inga Fechner
Senior Economist, Germany, Global Trade
inga.fechner@ing.de

Dimitry Fleming
Senior Data Analyst, Netherlands
Dimitry.Fleming@ing.com

Ciprian Dascalu
Chief Economist, Romania
+40 31 406 8990
ciprian.dascalu@ing.com

Muhammet Mercan
Chief Economist, Turkey
muhammet.mercan@ingbank.com.tr

Iris Pang
Chief Economist, Greater China
iris.pang@asia.ing.com

Sophie Freeman
Writer, Group Research
+44 20 7767 6209
Sophie.Freeman@uk.ing.com

Padhraic Garvey, CFA
Regional Head of Research, Americas
padhraic.garvey@ing.com

James Knightley
Chief International Economist, US
james.knightley@ing.com

Tim Condon
Asia Chief Economist
+65 6232-6020

Martin van Vliet
Senior Interest Rate Strategist
+31 20 563 8801
martin.van.vliet@ing.com

Karol Pogorzelski
Senior Economist, Poland

Karol.Pogorzelski@ing.pl

Carsten Brzeski

Global Head of Macro

carsten.brzeski@ing.de

Viraj Patel

Foreign Exchange Strategist

+44 20 7767 6405

viraj.patel@ing.com

Owen Thomas

Global Head of Editorial Content

+44 (0) 207 767 5331

owen.thomas@ing.com

Bert Colijn

Chief Economist, Netherlands

bert.colijn@ing.com

Peter Vanden Houte

Chief Economist, Belgium, Luxembourg, Eurozone

peter.vandenhoute@ing.com

Benjamin Schroeder

Senior Rates Strategist

benjamin.schroeder@ing.com

Chris Turner

Global Head of Markets and Regional Head of Research for UK & CEE

chris.turner@ing.com

Gustavo Rangel

Chief Economist, LATAM

+1 646 424 6464

gustavo.rangel@ing.com

Carlo Cocuzzo

Economist, Digital Finance

+44 20 7767 5306

carlo.cocuzzo@ing.com