

Bundles | 26 June 2020

# New Horizons Hub: Will banking survive covid-19?

BigTech companies have many ingredients to get ahead in the post-Covid world. They are digital natives; they have the technology, customer base and brand recognition, writes Elena Carletti, Stijn Claessens, Antonio Fatás and Xavier Vives for VoxEU. Here's our top selection of this week's stories from ING authors and our trusted third-party providers.

#### In this bundle



**New Horizons Hub** 

#### The moment when America fell behind

The European Union and China, in particular, are focusing on longterm investments in clean energy, whereas America is doubling down on the past, writes...



**New Horizons Hub** 

# VoxEU: The bank business model in the post-Covid-19 world

This article presents a report by the IESE Business School and CEPR which shows how the current crisis will shape the future of banking, writes Elena...



eZonomics | New Horizons Hub

#### Football fandom and loss aversion: A paradox

Football is back. Unfortunately, most fans are likely to see their teams lose (or at best, draw). So, given the high probability of disappointment, why is...

Bundles | 26 June 2020 1



eZonomics | New Horizons Hub

### What is inequality aversion?

Social and economic inequality has been an important topic for years. Research suggests that many people have an aversion to unequal rewards. Known as...

Opinion | 26 June 2020

**New Horizons Hub** 

# The moment when America fell behind

The European Union and China, in particular, are focusing on longterm investments in clean energy, whereas America is doubling down on the past, writes Jules Kortenhorst for Project Syndicate



Donald Trump talking about coal with a supporter in 2018

### The US is at risk of being left behind

As governments around the world adopt policies to address the immediate economic fallout of Covid-19, they are making decisions that will also determine their countries' competitiveness for decades to come. If designed correctly, stimulus and recovery packages can position countries and regions to reap the benefits of the industries of the future.

The European Union is already poised to speed ahead with the European Green Deal. And China will inevitably build on its pre-pandemic competitive advantages in solar power, electric vehicles (EVs), and batteries. The United States, on the other hand, is increasingly at risk of being left behind.

The European Green Deal is the perfect model for designing stimulus and recovery packages to create both immediate and long-term economic advantages. In the short run, its proposed investments would produce many high-paying jobs in clean-energy infrastructure, funding the installation of more wind and solar facilities, EV charging stations, hydrogen production plants, and programs to retrofit buildings for energy efficiency.

Better still, over the long term, all of these investments will result in lower energy costs, more

resilient energy systems, and a healthier population – among many other benefits. The costs of clean-energy technologies have been falling rapidly, following predictable learning curves. Over time, they will only become cheaper and faster to deploy on a greater scale.

# The EU Green Deal earmarked €40 billion investment in hydrogen infrastructure

Recognizing these advantages, Europe's recovery efforts have already allocated billions of euros to build solar farms in Iberia and offshore wind turbines in the North Sea. European companies such as Vestas, Siemens Gamesa, and others will do all the work. And these expanded sources of cheap, renewable electricity will then be used to produce the hydrogen molecules that will power heavy industry in the future. By earmarking €40 billion (\$45 billion) for investment in hydrogen infrastructure, the European Green Deal aims to ensure that shipping, steel manufacturing, and other industries can run on clean fuel.

The EU has also set aside recovery funds to install two million electric and hydrogen vehicle charging stations, thereby stimulating demand for EVs that can be built locally by companies like Volkswagen, Mercedes, and Renault. In these and other ways, Europe is taking meaningful steps to catch up with China in green technologies.

# In the US, policymakers have thought little about the future

Then again, if China were to introduce a stimulus and recovery package modelled after the European Green Deal, it could extend its competitive advantage into other forms of renewable energy, electric mobility, and hydrogen-powered industry. As in Europe, investment in green infrastructure will produce millions of good jobs in the near term, while reducing or containing air pollution and greenhouse-gas emissions over the long term, even as the Chinese economy grows. The clean air, quiet streets, and pristine views that became an accidental byproduct of the pandemic lockdown can be made permanent with cleaner forms of energy and transportation.

In the US, by contrast, though the federal government has taken some of the necessary steps to mitigate the short-term collapse of the economy, policymakers have thought little about the future. That is why many of the dirty industries of the past are being bailed out.

# Concerted policies to build clean-energy infrastructure will boost prosperity

A decade ago, the conventional wisdom was that America would lead the energy future because it was approaching "energy independence," owing to massive reserves of shale oil and gas that could now be extracted through hydraulic fracturing (fracking). But those industries are now in structural decline. The cost curves are clear: fossil fuels cannot compete with cheaper, more efficient, and clean-energy solutions. By the same token, EVs will become steadily cheaper and more reliable than internal combustion engines, just as green hydrogen will become the energy of choice for increasingly decarbonized heavy industries.

Watching US President Donald Trump's administration attempt to rescue jobs in coal mining, I am

reminded of my first job after high school, when I worked in a typewriter factory in the south of the Netherlands. Imagine if the Dutch government had for some reason decided to bail out that factory when personal computers started coming to market in the 1980s and 1990s. It would have been investing in a museum, not in a viable industry.

While jobs in the fossil-fuel industry will be lost, many more jobs will be created to manufacture wind turbines and batteries, install solar panels, build EVs, retrofit buildings, and so forth. The world is making the transition to clean energy, and those countries that are betting on the technologies of the past are digging their own economic graves.

Concerted industrial policies to build clean-energy infrastructure will do an enormous amount of good, not just for people and the planet, but also for countries' economic competitiveness and future prosperity. Europe and China understand this and are already on track to become the leaders of the world economy in the coming decades. They are actively leveraging their recovery packages to hasten that historic shift. In Europe, especially, future generations will admire today's leaders for creating jobs, driving down air pollution, and establishing a competitive economic position for decades to come. In the US, not so much.

The original article first appeared on Project Syndicate <a href="here">here</a> on 10th June 2020.

#### Author

#### Alissa Lefebre

Economist <u>alissa.lefebre@ing.com</u>

#### Deepali Bhargava

Regional Head of Research, Asia-Pacific <u>Deepali.Bhargava@ing.com</u>

#### **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 <a href="mailto:lynn.song@asia.ing.com">lynn.song@asia.ing.com</a>

#### 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 <a href="mailto:tiberiu-stefan.posea@ing.com">tiberiu-stefan.posea@ing.com</a>

#### 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 <a href="mailto:sophie.smith@ing.com">sophie.smith@ing.com</a>

#### 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 <u>Katinka.Jongkind@ing.com</u>

#### Marina Le Blanc

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

#### Samuel Abettan

Junior Economist samuel.abettan@ing.com

#### Franziska Biehl

Economist, Germany <u>Franziska.Marie.Biehl@inq.de</u>

#### Rebecca Byrne

Senior Editor and Supervisory Analyst <a href="mailto:rebecca.byrne@ing.com">rebecca.byrne@ing.com</a>

#### Mirjam Bani

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

#### Timothy Rahill

Credit Strategist timothy.rahill@ing.com

#### Leszek Kasek

Senior Economist, Poland <a href="mailto:leszek.kasek@ing.pl">leszek.kasek@ing.pl</a>

#### 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 <a href="mailto:edse.dantuma@ing.com">edse.dantuma@ing.com</a>

#### Francesco Pesole

FX Strategist <a href="mailto:francesco.pesole@ing.com">francesco.pesole@ing.com</a>

#### 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@inq.de

#### Nicholas Mapa

Senior Economist, Philippines nicholas.antonio.mapa@asia.ing.com

#### **Egor Fedorov**

Senior Credit Analyst <a href="mailto:eqor.fedorov@ing.com">eqor.fedorov@ing.com</a>

#### Sebastian Franke

Consumer Economist sebastian.franke@ing.de

#### Gerben Hieminga

Senior Sector Economist, Energy <a href="mailto:gerben.hieminga@ing.com">gerben.hieminga@ing.com</a>

#### Nadège Tillier

Head of Corporates Sector Strategy <a href="mailto:nadege.tillier@ing.com">nadege.tillier@ing.com</a>

#### Charlotte de Montpellier

Senior Economist, France and Switzerland <a href="mailto:charlotte.de.montpellier@inq.com">charlotte.de.montpellier@inq.com</a>

#### 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 <u>james.smith@ing.com</u>

#### Suvi Platerink Kosonen

Senior Sector Strategist, Financials <a href="mailto:suvi.platerink-kosonen@ing.com">suvi.platerink-kosonen@ing.com</a>

#### Thijs Geijer

Senior Sector Economist, Food & Agri <a href="mailto:thijs.geijer@ing.com">thijs.geijer@ing.com</a>

#### 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 <u>Maureen.Schuller@ing.com</u>

#### Warren Patterson

Head of Commodities Strategy <u>Warren.Patterson@asia.ing.com</u>

#### Rafal Benecki

Chief Economist, Poland rafal.benecki@ing.pl

#### Philippe Ledent

Senior Economist, Belgium, Luxembourg <a href="mailto:philippe.ledent@ing.com">philippe.ledent@ing.com</a>

#### Peter Virovacz

Senior Economist, Hungary <a href="mailto:peter.virovacz@ing.com">peter.virovacz@ing.com</a>

#### Inga Fechner

Senior Economist, Germany, Global Trade <a href="inga.fechner@ing.de">inga.fechner@ing.de</a>

11

#### **Dimitry Fleming**

Senior Data Analyst, Netherlands <u>Dimitry.Fleming@ing.com</u>

#### Ciprian Dascalu

Chief Economist, Romania +40 31 406 8990 <u>ciprian.dascalu@ing.com</u>

#### **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 <u>james.knightley@ing.com</u>

#### **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

Bundles | 26 June 2020

Foreign Exchange Strategist +44 20 7767 6405 <u>viraj.patel@ing.com</u>

#### **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 <a href="mailto:peter.vandenhoute@ing.com">peter.vandenhoute@ing.com</a>

#### Benjamin Schroeder

Senior Rates Strategist benjamin.schroder@ing.com

#### **Chris Turner**

Global Head of Markets and Regional Head of Research for UK & CEE <a href="mailto:chris.turner@ing.com">chris.turner@ing.com</a>

#### 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

Bundles | 26 June 2020

Opinion | 25 June 2020

**New Horizons Hub** 

# VoxEU: The bank business model in the post-Covid-19 world

This article presents a report by the IESE Business School and CEPR which shows how the current crisis will shape the future of banking, writes Elena Carletti, Stijn Claessens, Antonio Fatás, Xavier Vives for VoxEU



Source: Shutterstock

# Low profitability was already a problem before the Covid-19 crisis

Forecasts for 2020 suggest a drop in global GDP of 6% with a record number of countries growing at negative rates (OECD 2020). Advanced economies will suffer a much larger drop in GDP, of a size not seen since the Great Depression. No doubt, banks will come under stress as large-scale insolvencies among firms will arise and a wave of bankruptcies among households may follow. In addition, while banks entered the crisis better capitalised and more liquid, the size of the crisis will likely strain them to a degree exceeding that envisioned in many stress tests conducted so far (ECB 2020).

The crisis comes on top of the combination over the past decade of several trends that have meant increased competitive pressure on banks and that, in particular in some regions, have lowered their profitability. In the second report in CEPR/IESE series on The Future of Banking (Claessens et al. 2020), we argue that the global pandemic is likely to prolong, if not accelerate, many of these trends – digitalisation in particular. While the economic crisis has triggered policy responses to

stimulate lending to the real economy while assuring the stability of the banking sector that provides breathing space in the short run, deep restructuring of many banking systems will be needed in the medium-term.

#### A key quote from the article:

In the short run, banks may enjoy a revitalisation as they continue lending to their customers during the crisis, notably as soft information can more valuable today than hard information. They also enjoy the protection of the safety net and access to deposit financing. Nevertheless, Covid-19 will likely accelerate the digitalisation and the shift over the medium term of activities away from the sector. Medium-sized banks will likely be suffering the most since reaping cost efficiencies with large IT investments, crucial in a persistently low-interest environment, will be out of reach.

As a result, the banking sector will need deep restructuring; winding up banks and consolidating the remaining ones will be preferred. Whether in the post-Covid-19 world, political obstacles to cross-border mergers will prevent, as states become more protective of their national banking champions, is a major policy question. BigTech companies have many of the ingredients to get ahead in the post-Covid world. They are digital natives; they have the technology, customer base and brand recognition, as well as vast amounts of data and deep pockets.

Banking may thus move from the traditional oligopoly to a system with a few dominant platforms that control access to a fragmented customer base, with a few BigTech firms, together with some platform-transformed incumbents, monopolising the interface with customers. In this scenario, ensuring customer data ownership and portability for individuals, and data interoperability between platforms will be key to keeping switching costs for customers low and the market sufficiently competitive.

The full original article first appeared on VoxEU <a href="here">here</a> on 18th June 2020.

#### **Author**

#### Alissa Lefebre

**Economist** 

alissa.lefebre@ing.com

#### Deepali Bhargava

Regional Head of Research, Asia-Pacific <u>Deepali.Bhargava@ing.com</u>

#### **Ruben Dewitte**

Economist +32495364780

ruben.dewitte@ing.com

#### Kinga Havasi

Economic research trainee kinga.havasi@inq.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 <a href="mailto:tiberiu-stefan.posea@ing.com">tiberiu-stefan.posea@ing.com</a>

#### **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 <u>teise.stellema@ing.com</u>

#### 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 <a href="mailto:ewa.manthey@ing.com">ewa.manthey@ing.com</a>

#### **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 <a href="mailto:frantisek.taborsky@ing.com">frantisek.taborsky@ing.com</a>

#### 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 <u>Katinka.Jongkind@ing.com</u>

#### Marina Le Blanc

Sector Strategist, Financials

#### Marina.Le.Blanc@ing.com

#### Samuel Abettan

Junior Economist <a href="mailto:samuel.abettan@ing.com">samuel.abettan@ing.com</a>

#### Franziska Biehl

Economist, Germany <u>Franziska.Marie.Biehl@inq.de</u>

#### Rebecca Byrne

Senior Editor and Supervisory Analyst <a href="mailto:rebecca.byrne@ing.com">rebecca.byrne@ing.com</a>

#### Mirjam Bani

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

#### Timothy Rahill

Credit Strategist <a href="mailto:timothy.rahill@ing.com">timothy.rahill@ing.com</a>

#### 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 <a href="mailto:antoine.bouvet@ing.com">antoine.bouvet@ing.com</a>

#### Jeroen van den Broek

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

#### Edse Dantuma

Senior Sector Economist, Industry and Healthcare <a href="mailto:edse.dantuma@ing.com">edse.dantuma@ing.com</a>

#### Francesco Pesole

FX Strategist <a href="mailto:francesco.pesole@ing.com">francesco.pesole@ing.com</a>

#### 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 <a href="mailto:dmitry.dolgin@ing.de">dmitry.dolgin@ing.de</a>

#### Nicholas Mapa

Senior Economist, Philippines nicholas.antonio.mapa@asia.ing.com

#### **Egor Fedorov**

Senior Credit Analyst <a href="mailto:egor.fedorov@ing.com">egor.fedorov@ing.com</a>

#### 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 <a href="mailto:nadege.tillier@ing.com">nadege.tillier@ing.com</a>

#### Charlotte de Montpellier

Senior Economist, France and Switzerland <a href="mailto:charlotte.de.montpellier@ing.com">charlotte.de.montpellier@ing.com</a>

#### 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 <u>james.smith@ing.com</u>

#### Suvi Platerink Kosonen

# Senior Sector Strategist, Financials <a href="mailto:suvi.platerink-kosonen@ing.com">suvi.platerink-kosonen@ing.com</a>

#### Thijs Geijer

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

#### Maurice van Sante

Senior Economist Construction & Team Lead Sectors maurice.van.sante@inq.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 <u>Maureen.Schuller@ing.com</u>

#### **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 <a href="mailto:philippe.ledent@ing.com">philippe.ledent@ing.com</a>

#### Peter Virovacz

Senior Economist, Hungary <a href="mailto:peter.virovacz@ing.com">peter.virovacz@ing.com</a>

#### Inga Fechner

Senior Economist, Germany, Global Trade <a href="mailto:inqa.fechner@inq.de">inqa.fechner@inq.de</a>

#### **Dimitry Fleming**

Senior Data Analyst, Netherlands <a href="mailto:Dimitry.Fleming@ing.com">Dimitry.Fleming@ing.com</a>

#### Ciprian Dascalu

Chief Economist, Romania +40 31 406 8990 <u>ciprian.dascalu@ing.com</u>

#### **Muhammet Mercan**

Chief Economist, Turkey <u>muhammet.mercan@ingbank.com.tr</u>

#### 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@inq.de

#### Viraj Patel

Foreign Exchange Strategist +44 20 7767 6405 <a href="viraj.patel@ing.com">viraj.patel@ing.com</a>

#### **Owen Thomas**

Global Head of Editorial Content +44 (0) 207 767 5331 owen.thomas@ing.com

#### Bert Colijn

Chief Economist, Netherlands bert.colijn@inq.com

#### Peter Vanden Houte

Chief Economist, Belgium, Luxembourg, Eurozone <a href="mailto:peter.vandenhoute@ing.com">peter.vandenhoute@ing.com</a>

#### Benjamin Schroeder

Senior Rates Strategist benjamin.schroder@ing.com

#### **Chris Turner**

Global Head of Markets and Regional Head of Research for UK & CEE <a href="mailto:chris.turner@ing.com">chris.turner@ing.com</a>

#### Gustavo Rangel

Chief Economist, LATAM +1 646 424 6464 gustavo.rangel@ing.com

#### Carlo Cocuzzo

Economist, Digital Finance +44 20 7767 5306 <u>carlo.cocuzzo@ing.com</u>

# Football fandom and loss aversion: A paradox

Football is back. Unfortunately, most fans are likely to see their teams lose (or at best, draw). So, given the high probability of disappointment, why is football so popular? Football fan Jay Shamji and football agnostic Ian Bright ponder the highs and frequent lows of football fandom through the lens of behavioural science and loss aversion



#### **Loss Aversion**

Loss aversion argues that people are more sensitive to losses than to gains. In general, people value losses more than twice as much as gains. It may even be that people take actions to avoid losses. This may help explain why many people keep large sums of money in deposit accounts rather than invest it in stock markets. Their fear of losing money overrides the chance of significant gains.

Yet, when we turn our attention to football, the behaviour of fans seems to violate the idea of loss aversion.

Consider results for the English Premier league over the five seasons from 2014/15 to 2018/19. Of the 20 clubs competing each season, only three (Manchester City, Tottenham and Arsenal) have

won at least half their games. Fans supporting the other 17 clubs were more than likely to experience loss.

Another way to look at this is to consider winners over the past five seasons. In the English Premier League, three teams won – Manchester City, Chelsea and Leicester. This pattern of producing few winners is repeated and may be more extreme in other countries. For example, in the German Bundesliga, Bayern Munich has won each of the past five seasons. In the French Ligue 1, Paris Saint-Germain has won four times as has Barcelona in Spain's La Liga.

Still, stadiums in England and elsewhere are packed to the brim. How does this stack up against the theory of loss aversion?

#### **Mapping happiness**

These cold statistics line up with more detailed research. A study in 2018 by Peter Dolton and George McKerron of the University of Sussex tracked the responses to 32,000 UK football fans on a smartphone app called <u>Mappiness</u>. The app pings people and asks for their mood at particular times. By combining data on locations of football stadia, match dates, teams playing, and results of those matches, the researchers were able to assess how people's happiness changed in the hours after a football match. The team a fan was likely to support could also be interpreted from the data.

The app recorded the mood of match goers following a match. The results were <u>stark</u>. "The pain felt by football fans after a defeat is more than double the joy of winning", the study found. This was coupled with the finding that those in the stadium, rather than elsewhere, had an increased level of jubilation when on the winning side and a higher level of sadness when on the losing side.

What could explain the willingness of so many people to put themselves in such a potentially losing position? With no guarantee of successfully understanding football fans, here are three possible explanations from the behavioural literature.

## Sunk cost

Being a football fan can be expensive. A 2019 study by  $\underline{\mathsf{KPMG}}$  found the average fan in the UK would have to spend on average £1,888 in the season to attend 19 home and five away matches. Some match goers will be less financially stable than others, meaning these costs can be a huge burden to shoulder. Some fans pay up-front for season tickets and others usually need to buy tickets months before a game.

As a result, even before kick-off, many fans are not only emotionally but also financially committed to the match, despite the likelihood of disappointment. In behavioural literature, this is known as the sunk cost fallacy That is the tendency to carry on with a task once an initial commitment that cannot be retrieved has been made.

# Pootball fans and identity

Many people like to be associated with groups. This partly explains the success of social media platforms such as Facebook, Instagram and Twitter.

Football fans can form particularly strong groups. The book <u>Soccernomics</u> by Simon Kuper and Stefan Szymanski notes that some fans are "Hornbyesque". The term comes from the depiction of

Bundles | 26 June 2020

a fanatical fan in Nick Hornby's novel Fever Pitch. But as Soccernomics argues, not all are so fanatical. Instead, they may be "BIRGers" - those who are 'Basking In Reflected Glory' and may be more fickle.

The Hornbyesque fans may have an allegiance to their group that extends beyond the pain of losing. The BIRGers may drift to other clubs when the going gets tough.

The intersection of football and identity need not be local. It can be international.

Various tournaments allow fans all over the world to divert their energy to support their national teams. Whether it be narrowly getting to the provisional group stages or being the favourites of winning the competition, fans come together to back their team until the very end. It is interesting to note the positive changes created from international tournaments, in particular when a national team wins a match or attains a great achievement.

A study published in the May 2020 <u>American Economic Review</u> by Emilio Depetris, Ruben Durante and Filipe Campante, underlined how victories and important sporting achievements in such tournaments fuel unity and trust. Victories by national teams were found to lead individuals to become "significantly more likely to trust and interact with members of other ethnicities". Interethnic violence is reduced due to these victories, especially when the team is composed of different ethnicities.

# Matchday: A Bundled Experience

Watching a football match at the stadium, or elsewhere, can be an experience that bundles together meeting with friends, a day out and a meal. The match itself is important but is only part of the package that makes an experience. Research suggests people may value experiences more highly than goods.

Consider the fans of midtable or lower league teams who purchase season tickets. These regular match goers will often start their matchday experiences many hours prior to the game itself; discussing and debating everything under the sun, from contending a potential red card to predicting the line-up for the next game. For some fans, it may be the only time they break out into song. The match may be incidental. It is the shared memories and experience of the turbulence of a football match watched together that they value.

#### The final whistle

There will be different reasons why each match goer and football fanatic is so invested in the face of loss aversion. As football writer and thinker Simon Kuper encapsulates in his article for the Financial Times, football allows people to alleviate themselves from their problems, even if it is only for a moment or two. His philosophical take on the game picks identity as a mainstay of fandom. Some people will hold their identity solely to their football club even through the many losses they must endure. Others will let go. This may be due to losses on the field, a loss of prestige or eventually just losing interest. Who knows? Maybe there is no paradox at all.

#### **Author**

#### Alissa Lefebre

**Economist** 

#### alissa.lefebre@ing.com

#### Deepali Bhargava

Regional Head of Research, Asia-Pacific <u>Deepali.Bhargava@ing.com</u>

#### **Ruben Dewitte**

Economist +32495364780 ruben.dewitte@ing.com

#### Kinga Havasi

Economic research trainee <a href="mailto:kinga.havasi@ing.com">kinga.havasi@ing.com</a>

#### 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 <a href="mailto:sander.burgers@ing.com">sander.burgers@ing.com</a>

#### 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 <a href="mailto:tiberiu-stefan.posea@ing.com">tiberiu-stefan.posea@ing.com</a>

#### **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 <u>diederik.stadig@ing.com</u>

#### Diogo Gouveia

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

#### **Marine Leleux**

Sector Strategist, Financials marine.leleux2@ing.com

#### Ewa Manthey

Commodities Strategist <a href="mailto:ewa.manthey@ing.com">ewa.manthey@ing.com</a>

#### **ING Analysts**

#### James Wilson

EM Sovereign Strategist James.wilson@ing.com

#### Sophie Smith

Digital Editor <a href="mailto:sophie.smith@ing.com">sophie.smith@ing.com</a>

#### 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@inq.com

#### Samuel Abettan

Junior Economist <a href="mailto:samuel.abettan@ing.com">samuel.abettan@ing.com</a>

#### Franziska Biehl

Economist, Germany <u>Franziska.Marie.Biehl@ing.de</u>

#### Rebecca Byrne

Senior Editor and Supervisory Analyst <a href="mailto:rebecca.byrne@ing.com">rebecca.byrne@ing.com</a>

#### Mirjam Bani

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

#### Timothy Rahill

Credit Strategist <a href="mailto:timothy.rahill@ing.com">timothy.rahill@ing.com</a>

#### Leszek Kasek

Senior Economist, Poland <a href="mailto:leszek.kasek@ing.pl">leszek.kasek@ing.pl</a>

#### 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 <a href="mailto:edse.dantuma@ing.com">edse.dantuma@ing.com</a>

#### Francesco Pesole

FX Strategist

francesco.pesole@ing.com

#### Rico Luman

Senior Sector Economist, Transport and Logistics <a href="mailto:Rico.Luman@ing.com">Rico.Luman@ing.com</a>

#### Jurjen Witteveen

Sector Economist

jurjen.witteveen@ing.com

#### **Dmitry Dolgin**

Chief Economist, CIS <a href="mailto:dmitry.dolgin@ing.de">dmitry.dolgin@ing.de</a>

#### Nicholas Mapa

Senior Economist, Philippines <a href="mailto:nicholas.antonio.mapa@asia.ing.com">nicholas.antonio.mapa@asia.ing.com</a>

#### **Egor Fedorov**

Senior Credit Analyst <u>egor.fedorov@ing.com</u>

#### 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 <a href="mailto:nadege.tillier@ing.com">nadege.tillier@ing.com</a>

#### 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 <u>james.smith@ing.com</u>

#### Suvi Platerink Kosonen

Senior Sector Strategist, Financials <u>suvi.platerink-kosonen@ing.com</u>

#### 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 <u>Maureen.Schuller@ing.com</u>

#### **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 <a href="mailto:philippe.ledent@ing.com">philippe.ledent@ing.com</a>

#### Peter Virovacz

Senior Economist, Hungary <a href="mailto:peter.virovacz@ing.com">peter.virovacz@ing.com</a>

#### Inga Fechner

Senior Economist, Germany, Global Trade <a href="mailto:inga.fechner@ing.de">inga.fechner@ing.de</a>

#### **Dimitry Fleming**

Senior Data Analyst, Netherlands <u>Dimitry.Fleming@ing.com</u>

#### Ciprian Dascalu

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

#### **Muhammet Mercan**

Chief Economist, Turkey <a href="mailto:muhammet.mercan@ingbank.com.tr">muhammet.mercan@ingbank.com.tr</a>

#### 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 <u>james.knightley@ing.com</u>

#### 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 <a href="mailto:peter.vandenhoute@ing.com">peter.vandenhoute@ing.com</a>

#### Benjamin Schroeder

Senior Rates Strategist benjamin.schroder@ing.com

#### **Chris Turner**

Global Head of Markets and Regional Head of Research for UK & CEE <a href="mailto:chris.turner@ing.com">chris.turner@ing.com</a>

#### 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

# What is inequality aversion?

Social and economic inequality has been an important topic for years. Research suggests that many people have an aversion to unequal rewards. Known as inequality or inequity aversion, it may even be hard wired into our minds. To understand, consider an experiment involving cucumbers, grapes and monkeys



## Fairness may be innate

A 2003 report in the journal <u>Nature</u> outlined a laboratory experiment where monkeys were offered different rewards for doing the same task. One was given a slice of cucumber for successfully completing the task. The other was given a grape. The different rewards were seen by each monkey. The monkeys especially liked grapes, so being rewarded with cucumber when the other received a grape appeared to be insulting. Indeed, <u>this video</u> shows the monkey receiving cucumber would throw the food out of their cage in disgust.

Experiments replicate this behaviour in monkeys and dogs.

The link with animals may seem far-fetched but it may be that there is something innate and natural about our disappointment when someone else receives more than us.

Unfairness often rubs us the wrong way when it disadvantages us, and we learn how to spot this from a very <u>young age</u>.

Be it finance, privilege or simply a slice of pie, not everyone is satisfied having more or less than others. This is what is known as <u>inequity or inequality aversion</u>.

## Fairness can be complex

Reactions to unfairness can be complex. When inequity aversion goes the other way, things get particularly interesting. Sometimes receiving more than others can cause us to reject an offer – this is known as advantageous inequity aversion.

When this happens, the absolute benefit, or total amount we receive, seems to matter less than how much we get compared to someone else.

This isn't necessarily because we care about other people. In many of the studies that have looked into inequity aversion, neither person receives anything at all if the person who has been offered a greater amount decides that they don't want it.

In this case, rejection doesn't result in equal distribution, even though arguably both could be better off if the offer was accepted and each got at least something, even if it was unequally distributed.

Because of this, it's expected that maintaining social status is one of the underlying motivations behind it. Rejections aren't necessarily about right or wrong, but about the question, "how do I come off in this scenario?"

It's also present in varying degrees in different <u>countries and cultures</u>. For cultures that strongly value evenly sharing resources, the only acceptable distribution is an equitable one.

#### In real life

It can be uncomfortable if others know we have more than them. But in the same vein, it can feel unfair to have less.

Whether it's money or something else, the social environment in which it is distributed can affect how we feel, and can make us more likely to opt for an equal outcome. Even if that means we sometimes end up being individually worse off.

#### **Author**

#### Alissa Lefebre

**Economist** 

alissa.lefebre@ing.com

#### Deepali Bhargava

Regional Head of Research, Asia-Pacific <u>Deepali.Bhargava@ing.com</u>

#### **Ruben Dewitte**

Economist +32495364780 ruben.dewitte@ing.com

#### Kinga Havasi

Economic research trainee <a href="mailto:kinga.havasi@ing.com">kinga.havasi@ing.com</a>

#### 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 <a href="mailto:tiberiu-stefan.posea@ing.com">tiberiu-stefan.posea@ing.com</a>

#### **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 <u>diederik.stadig@ing.com</u>

#### Diogo Gouveia

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

#### Marine Leleux

Sector Strategist, Financials marine.leleux2@ing.com

#### Ewa Manthey

Commodities Strategist <a href="mailto:ewa.manthey@ing.com">ewa.manthey@ing.com</a>

#### **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 <u>Katinka.Jongkind@ing.com</u>

#### Marina Le Blanc

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

#### Samuel Abettan

Junior Economist samuel.abettan@inq.com

#### Franziska Biehl

Economist, Germany <u>Franziska.Marie.Biehl@ing.de</u>

#### Rebecca Byrne

Senior Editor and Supervisory Analyst <a href="mailto:rebecca.byrne@ing.com">rebecca.byrne@ing.com</a>

#### Mirjam Bani

Sector Economist, Commercial Real Estate & Public Sector (Netherlands) <a href="mirjam.bani@ing.com">mirjam.bani@ing.com</a>

#### Timothy Rahill

Credit Strategist <a href="mailto:timothy.rahill@ing.com">timothy.rahill@ing.com</a>

#### Leszek Kasek

Senior Economist, Poland <a href="mailto:leszek.kasek@ing.pl">leszek.kasek@ing.pl</a>

#### Oleksiy Soroka, CFA

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

#### **Antoine Bouvet**

Head of European Rates Strategy <a href="mailto:antoine.bouvet@ing.com">antoine.bouvet@ing.com</a>

#### Jeroen van den Broek

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

#### Edse Dantuma

Senior Sector Economist, Industry and Healthcare <a href="mailto:edse.dantuma@ing.com">edse.dantuma@ing.com</a>

#### 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 <a href="mailto:dmitry.dolgin@ing.de">dmitry.dolgin@ing.de</a>

#### Nicholas Mapa

Senior Economist, Philippines nicholas.antonio.mapa@asia.ing.com

#### **Egor Fedorov**

Senior Credit Analyst <a href="mailto:eqor.fedorov@ing.com">eqor.fedorov@ing.com</a>

#### 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 <a href="mailto:charlotte.de.montpellier@ing.com">charlotte.de.montpellier@ing.com</a>

#### 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 <u>james.smith@ing.com</u>

#### Suvi Platerink Kosonen

Senior Sector Strategist, Financials <u>suvi.platerink-kosonen@ing.com</u>

#### Thijs Geijer

Senior Sector Economist, Food & Agri <a href="mailto:thijs.geijer@ing.com">thijs.geijer@ing.com</a>

#### Maurice van Sante

Senior Economist Construction & Team Lead Sectors <u>maurice.van.sante@ing.com</u>

#### 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 <u>Maureen.Schuller@ing.com</u>

#### **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 <a href="mailto:philippe.ledent@ing.com">philippe.ledent@ing.com</a>

#### Peter Virovacz

Senior Economist, Hungary peter.virovacz@ing.com

#### Inga Fechner

Senior Economist, Germany, Global Trade <a href="inga.fechner@ing.de">inga.fechner@ing.de</a>

#### **Dimitry Fleming**

Senior Data Analyst, Netherlands <u>Dimitry.Fleming@ing.com</u>

#### Ciprian Dascalu

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

#### **Muhammet Mercan**

Chief Economist, Turkey <u>muhammet.mercan@ingbank.com.tr</u>

#### 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@inq.com

#### Peter Vanden Houte

Chief Economist, Belgium, Luxembourg, Eurozone <a href="mailto:peter.vandenhoute@ing.com">peter.vandenhoute@ing.com</a>

#### Benjamin Schroeder

Senior Rates Strategist benjamin.schroder@ing.com

#### **Chris Turner**

Global Head of Markets and Regional Head of Research for UK & CEE <a href="mailto:chris.turner@ing.com">chris.turner@ing.com</a>

#### 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

#### **Disclaimer**

This publication has been prepared by the Economic and Financial Analysis Division of ING Bank N.V. ("ING") solely for information purposes without regard to any particular user's investment objectives, financial situation, or means. ING forms part of ING Group (being for this purpose ING Group N.V. and its subsidiary and affiliated companies). The information in the publication is not an investment recommendation and it is not investment, legal or tax advice or an offer or solicitation to purchase or sell any financial instrument. Reasonable care has been taken to ensure that this publication is not untrue or misleading when published, but ING does not represent that it is accurate or complete. ING does not accept any liability for any direct, indirect or consequential loss arising from any use of this publication. Unless otherwise stated, any views, forecasts, or estimates are solely those of the author(s), as of the date of the publication and are subject to change without notice.

The distribution of this publication may be restricted by law or regulation in different jurisdictions and persons into whose possession this publication comes should inform themselves about, and observe, such restrictions.

Copyright and database rights protection exists in this report and it may not be reproduced, distributed or published by any person for any purpose without the prior express consent of ING. All rights are reserved. ING Bank N.V. is authorised by the Dutch Central Bank and supervised by the European Central Bank (ECB), the Dutch Central Bank (DNB) and the Dutch Authority for the Financial Markets (AFM). ING Bank N.V. is incorporated in the Netherlands (Trade Register no. 33031431 Amsterdam). In the United Kingdom this information is approved and/or communicated by ING Bank N.V., London Branch. ING Bank N.V., London Branch is authorised by the Prudential Regulation Authority and is subject to regulation by the Financial Conduct Authority and limited regulation by the Prudential Regulation Authority. ING Bank N.V., London branch is registered in England (Registration number BR000341) at 8-10 Moorgate, London EC2 6DA. For US Investors: Any person wishing to discuss this report or effect transactions in any security discussed herein should contact ING Financial Markets LLC, which is a member of the NYSE, FINRA and SIPC and part of ING, and which has accepted responsibility for the distribution of this report in the United States under applicable requirements.

Additional information is available on request. For more information about ING Group, please visit www.ing.com.