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Can data-based lending improve inclusion and reduce economic volatility?

Tech platforms make their credit assessments based on different data than banks traditionally tend to do. Recent research finds that this could have profound implications on access to credit, credit risk, monetary policy and the economic cycle

The basics of credit are the same, always, everywhere

The essence of getting credit, from an economic perspective, is as old as humanity. A borrower obtains funds, and promises to pay them back some day. But the deal suffers from "asymmetric information". The lender knows less than the borrower does about e.g. the borrowers intentions, his behaviour, the risks he faces. So the lender wants to see proof of income, looks at the prospects of the economy the borrower is operating in, and draws from experience with similar borrowers in the past.

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Based on all that, the lender demands a risk premium: a markup on the interest charged, as an insurance premium against losses incurred should the borrower be unable to repay. The premium can be lowered if the borrower is able to pledge collateral: assets, such as a house, the lender can repossess if things go wrong. This basic process is true for banks, but also for markets, where the rates on collateralised loans and bonds tend to be lower than those on unsecured ones.

Current bank and market lending systems do have their downsides

This basic mechanism tends to work reasonably well, but it does have a number of side effects.

1 A minimum amount of financial data is needed to assess credit risk

At the individual level, borrowers that do not have a multi-year history of stable income to show, or a valuable asset to pledge as collateral, may find it more difficult and expensive to obtain credit. As such, self-employed people with volatile incomes and start-up entrepreneurs may find it more difficult to obtain credit.

2 At the macro level, the system amplifies the economic cycle, for better and for worse

When the economy grows, lenders will make a more favourable assessment of borrowers' chances to repay their loan. Retail clients are more likely to retain their job and get wage increases, while SMEs are more likely to prosper and grow. If real estate prices increase, this increases the value of the collateral borrowers can pledge. More borrowers will be able to obtain more credit. This, in turn, increases spending power in the economy, reinforcing the upward cycle of GDP growth and increasing real estate prices. However, once the cycle turns, this self-reinforcing mechanism goes into reverse. Borrowers' prospects deteriorate, and with it, lenders' willingness to lend to them. Moreover, if real estate prices fall as well, lower collateral valuations reduce the amount of credit a borrower can obtain. This process has been analysed as the "financial cycle" and, earlier on, as the "financial accelerator mechanism".

If only there were a way to reduce the asymmetry of information. If the lender were able to get a *real-time* and thorough understanding of the borrower's business, the need to assess broader economic conditions might be lowered, and collateral requirements might be relaxed or even removed completely. This would enhance access to credit and reduce the procyclical tendencies embedded in both bank and market lending today. But how, you say?

Credit based on alternative, non-financial data to the rescue?

Scoring based on "non-traditional data" is already as good as, or even better than, traditional ratings.

This is where tech platforms come in. They gather data on their users' interactions and transactions on the platform, and often beyond. Their users tend to spend a lot of time on those platforms, (including site and app, but also e.g. partner websites). Based on the profile they build of their users, platforms can make real-time credit assessments, and may feel comfortable e.g. extending consumer credit to buyers, but also lending to merchants active on the platform. Recent BIS analysis shows that such credit scoring based on "non-traditional data" is already as good as, or even better than, traditional ratings.

On the one hand, such profiling may sound creepy, and indeed there are trade-offs to consider, especially in terms of privacy. Policymakers in Europe and elsewhere continue to review data use developments and applicable regulations. But on the other hand, real-time credit assessments made based on data gathered about interactions and transactions may extend credit and other financial services to new groups that were previously excluded, because of lack of a stable income history or lack of collateral to pledge.

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That is a welcome development in a world where temporary and self-employment become more prevalent, and where digital markets invite entrepreneurship. Moreover, analysis of "non-traditional" data allows lenders to provide borrowers with more timely, personalised and accurate tools to monitor their financial situation and loan obligations. This should benefit both borrower and lender.

For the economy at large, loosening the relationship between economic conditions, real estate valuation and credit may reduce procyclicality. A recent BIS paper studying bigtech credit in China, shows that indeed, the correlation with real estate prices and GDP is lower for bigtech credit than it is for credit assessed on a traditional basis, which suggests this form of credit should be less procyclical.

Tapping new sources of data is not the exclusive domain of fintech and bigtech

While bigtech credit thus far is not the dominant form of borrowing in most economies, and plays only a minor role in Europe, this will change, and possibly faster than many currently anticipate. See e.g. this recent FSB report about how bigtech is expanding its finance offering in emerging markets. Of course, it's not just bigtech firms that can lend using "non-traditional data". Other lenders may also rely on data-crunching credit assessment by platforms in an originate-to-distribute setup – this is the way China's Ant Group works together with banks.

Any lender can develop the analytical capability and expertise to use alternative data, provided they have access to them.

Apart from relying on other companies' expertise, any lender can try to develop the analytical capability and expertise to use non-traditional data, provided they have access to them. Not every lender will be in a position to develop a platform of their own, where buyers and merchants generate enough data to make meaningful credit assessments. But of course lenders could also access data from other platforms, for example by entering into a bilateral partnership with the platform. Alternatively, regulation could be designed to enforce data portability, allowing borrowers to give lenders access to platform data they have generated. Incidentally, policymakers such as the European Commission indeed recognise the value of data and data sharing for financial services and beyond. Policies enforcing more wide data sharing – all subject to user permission – are being actively explored.

To put things into perspective: platform data-based borrowing will not solve all financial exclusion and procyclicality problems overnight. It may help to reduce information asymmetry between borrower and lender, but will not fully eliminate it. Moreover, the future always holds risk and uncertainty that even the most advanced algorithm fed with the most up-to-date data cannot foresee – a lesson we have again learnt in 2020. But the addition of a platform-based credit channel could certainly help enhance credit access and financial and economic stability. Moreover, a less cosy relationship between real estate prices and credit would be a welcome development both for credit markets and associated risks, and for housing markets and affordability.

Author

Amrita Naik Nimbalkar
Junior Economist, Global Macro
amrita.naik.nimbalkar@ing.com

Mateusz Sutowicz
Senior Economist, Poland
mateusz.sutowicz@ing.pl

Alissa Lefebre
Economist
alissa.lefebre@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.schroder@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