

BRIEFING NOTE

THE BANK OF ENGLAND AND A 1.5°C GREEN TRANSITION: RESHAPING FINANCE

By Frank Van Lerven

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Contact: Frank.vanlerven@neweconomics.org

A recent wave of reports have highlighted the clear and urgent need to transform the financial system to prevent climate change catastrophe in just over a decade. The Bank of England has suggested a few incremental adjustments to the financial sector that will tinker around the edges but what is really needed is bold solutions that will reshape finance to credibly deliver a sustainable green transition.

Policy Recommendations:

- **Walking the talk on TCFD:** The Bank of England should make the Task Force on Climate-related Financial Disclosures recommendations mandatory, but first needs to lead by example on transparency and disclose the climate related financial risks it faces.
- **Reflecting climate risks in collateral frameworks:** The Bank has urged financial institutions to proactively manage climate risks, but it needs to practice what it preaches and integrate climate risk into its own monetary policy operations.
- **Green Macroprudential Policy:** Changes to policy reflect too much faith in efficient markets and shareholder capitalism. The Bank should begin stress testing the climate resilience of banks and consider raising capital requirement for brown loans.
- **Green Credit Guidance:** To guide finance towards low-carbon sectors new tools should be introduced, such as: green targeted refinancing lines, ceilings and green credit quotas, and a minimal ratio of green lending to the real economy.
- **Repurposing the £125bn Term Funding Scheme:** The Bank should redirect the £125 billion TFS scheme into a public investment bank or regional community banks with a green mandate.

Introduction: For too long ‘the economy’ and ‘the finance’ flowing through it have proceeded as if their own self-defined laws are immutable and detached from people and the planet we inhabit. A recent survey by the Bank shows that only one in ten of banks are taking a long enough view of climate-related risks¹. Indeed, the Bank’s own monetary policy operations fail to reflect climate risks and is skewed towards carbon intensive sectors².

The Bank has made some modest steps in ensuring the financial sector begins addressing climate change but these measures place too much faith in the efficiency of markets and shareholder capitalism. This approach neglects that climate change is the greatest market failure to date, and our overly concentrated banking system prioritises shareholder profits over the environment. If global warming is to be kept to a maximum of 1.5°C, we need bold reforms that re-shape finance and harness its benefits.

The Bank of England must play a critical role in the rapid shift to a clean economy. It has responsibility over large swathes of financial regulation and could – with support from the Treasury – heavily influence the allocation of financial flows. Its monetary policy operations also influence financial market prices, which consequently affects where capital is allocated.

This briefing looks at the central role that the Bank of England must play in delivering an urgent climate transition, and how it should play that role.

Climate change and finance: Climate change is now recognised as a source of financial risk by 19 of the world's leading central banks and regulators in the first progress report³ of the Network for Greening the Financial System (NGFS). Indeed, the physics of climate change are clear, as are its implications for the economy and its paths of investment. According to the latest IPCC report⁴, global greenhouse gas emissions must be almost halved within the next 12 years to keep temperatures to the already-dangerous rise of 1.5°C.

Climate change has the potential to wipe out trillions of pounds worth of assets. Without significant investment, physical risks from climate change will emerge – the increased frequency and severity of extreme weather events – with the potential to disrupt global supply chains, resource availability, and entire industries.

Bank of England Governor Mark Carney recently warned of the “catastrophic impacts” climate change could have for our financial system, potentially risking a rapid, system-wide collapse in asset prices⁵.

Analysis suggests that only one quarter of remaining fossil fuel reserves can be burned if we are to keep to the Paris Climate Agreement and stop temperatures rising above 2°C – let alone 1.5⁶. This poses severe financial risks: leaving most of the world's oil, gas and coal in the ground means carbon intensive assets may be grossly overpriced – the so-called ‘carbon bubble’ concept – and infrastructure built to extract the reserves may become useless (known as ‘stranded assets’). Losses could reverberate through the financial system, with approximately 30% of the market value of the FTSE 100 stock exchange directly derived from oil, gas and mining companies⁷.

The impacts will not be limited to the fossil fuel sector alone, but will also indirectly affect industries that use carbon intensive inputs in their production. This could lead to losses of between 45% and 60% of the value of equity portfolios; and up to \$43 trillion of losses to the total global stock of assets by the end of the 21st century⁸. Another study suggests that technological innovation and the ongoing trend towards low carbon technologies could lead to global wealth losses estimated at \$1-4 trillion⁹.

By extending credit to carbon intensive companies, the banking sector is also exposed to these risks. Banks might not default due to their direct exposure to fossil and utilities sectors, but the greatest risks lie in their indirect exposures to sectors dependent on fossil fuels that could eat up between 40% and 280% of their capital; the latter figure would effectively bankrupt the banking sector almost three times over¹⁰.

In short, the structure of our financial sector is fundamentally misaligned with the challenges and risks posed by climate. The Bank of England has a critical role in re-shaping the financial sector to deliver a sustainable low carbon transition. We make the following five recommendations.

#1) Lead by example on disclosing climate risk: The Bank of England has taken some commendable steps to address financial risks from climate change, not least by helping to establish the Task Force on Climate-related Financial Disclosures (TCFD). The TCFD initiative encourages the voluntary public disclosure of climate related risks. The initiative was designed because financial markets fail to reflect climate risks in asset valuations, which exposes them to significant losses and hinders the prospect of a rapid low-carbon transition.

In theory, the recommendations of the TCFD would allow the market to better price in risks by providing information about the climate risk exposure of firms. However, uptake of the TCFD's voluntary disclosure framework has been weak, both for companies¹¹ and for banks¹². In response, opting against making disclosures mandatory, the Bank has recently proposed that financial institutions identify a senior manager to take responsibility of managing climate-change risks. The Bank has also suggested that it expects banks and insurers to implement the main tenets of the TCFD framework.

At present however, these are mere expectations. The Bank has not given any explicit incentives or threats for not implementing these recommendations. At the very least, the Bank should make these propositions mandatory – with an emphasis that financial institutions consider the latest findings of the IPCC report scenario analysis and reporting.

Importantly, the Bank itself has not disclosed the financial implications and risks of climate change on its own operations – setting a poor example to wider stakeholders. The Bank's Corporate Quantitative Easing programme and broader monetary policy frameworks are highly skewed towards carbon intensive sectors. Nearly 50% of the Bank's purchases were from manufacturing and electricity sectors, generating 52% of emissions but providing just 11.8% of GVA¹³. As more than 50 NGOs have suggested¹⁴, it seems sensible that the Bank takes a more coherent policy approach and disclose the financial implications and risks of climate change to its own balance sheet.

#2) Reflecting climate risks in collateral frameworks – practice what you preach: While the Bank has warned that financial markets are failing to price in climate related financial risks, it too is exposed to those very same financial risks.

The Bank lends money to the banking sector against guarantees, referred to as collateral. The Bank accepts a variety of financial assets from financial institutions as collateral in exchange for lending banks money to make payments – including various types of fossil fuel related assets. The Bank however will not simply accept any type of asset as collateral for its lending; it sets a collateral framework for defining a list of eligible assets that must be considered as low risk.

Problematically, the risk measures used by the Bank are exactly the same as the ones used by private sector credit rating agencies: the same credit rating agencies that gave investment-grade, "money safe" ratings to various sub-prime loans in the run-up to the 2008 global financial crisis. These agencies are again failing to price-in climate-related financial risks, as noted by the new NGFS report¹⁵:

"Climate- or environmental-related criteria are not yet sufficiently accounted for in internal credit assessments or in the models of credit agencies' models which many Central Banks rely on for their operations."

Significantly, the Bank's collateral framework is extremely powerful and reverberates throughout the rest of the financial sector – affecting financial market prices and capital allocation more widely. This is because the assets the Bank accepts as collateral automatically become more valuable to the banking sector, and demand for them thus increases. The eligible assets will also appear as safe asset to investors and creditors; and investors will be more willing finance eligible companies and at a lower interest rate to boot.

A recent study¹⁶ found that firms recently added to the ECB's collateral framework benefit from an average difference in interest rates of one third when compared to ineligible ones. The study also found that newly eligible firms received a higher quantity of credit, when compared to ineligible ones.

Since the Bank fails to integrate climate-related financial risks into its collateral framework, it biases the allocation of capital towards carbon-intensive activities. In effect, certain fossil fuel related companies are indirectly subsidised by the Bank. It should urgently integrate climate related financial risks in its collateral framework. This would limit its own exposure to climate risks and would decrease the market value of various carbon intensive assets – helping re-align capital. In addition, it would send a strong signal to the private sector to reflect climate related risks in their own asset valuations.ⁱ

ⁱ For a full and more in depth explanation of this proposal see Monnin, P. (2018) 'Central banks should reflect climate risks in monetary policy operations' for the Council of Economic Policies. Available at: <https://www.cepweb.org/central-banks-should-reflect-climate-risks-in-monetary-policy-operations/>

#3) Green macroprudential policy: The 2008 global financial crisis was a rude awakening as to what happens when we depend on the supposed efficiency and transparency of markets. While we need greater transparency from all banks, the TCFD disclosures are over-reliant on the efficiency of markets and their ability to price-in risk. In response to the 2008 crash, the Bank adopted a new ‘macroprudential policy’ approach.

Macroprudential policy gives the Bank powers to reign in those activities that lead to bubbles, cyclical swings and economic shocks. A number of central banks are now using these tools to thwart systemic risks from the real estate sector. The same logic be applied to systemic risks posed by climate change.

The Bank should run climate stress tests to measure the banking system’s exposure to climate change. To mitigate any potential climate related risks, additional capital requirements for ‘brown’ (carbon-intensive) loans could be introduced, e.g. for loans carrying carbon risk, or entities that are heavily reliant on fossil fuels. Capital requirements work by compelling banks to back a proportion of their lending with shareholders’ equity. In this sense, capital requirements are intended to act as a cushion to absorb losses when loans default and can discourage certain forms of lending.

A brown capital requirement would reflect the growing potential for systemic risk of investing in carbon intensive activities and could dampen lending that contributes to climate change. It would also give banks a buffer to withstand climate related financial losses and the repricing of stranded assets. Conversely, a lower capital requirement for green loans is not advised, as it would not lead to a noticeable increase in the level of sustainable investment. Instead, it would risks weakening an already fragile banking system and undermining the efficacy of the still developing field of sustainable finance¹⁷.

#4) Green credit guidance: Alongside macroprudential policy, the Bank should also introduce green credit guidance to guide lending and investment towards low-carbon sectors. Such measures could help develop ‘missing’ green financial markets until they reached an appropriate scale. This might include, for example, green targeted refinancing lines that would allow commercial banks to borrow from the central bank (or refinance) at lower rates to ease financing constraints in green sectors and to encourage banks to lend for green purposes.

Alternatively, the Bank could introduce ceilings on ‘brown’ forms of lending or quotas for green lending to particular sectors. Finally, a minimal ratio of lending to the real economy (non-real estate) could be set. The ratio could be further broken down into lending for green and brown sectors.

Policies aimed at influencing the level of credit available to particular sectors played a prominent role in most Western countries post-war reconstruction and growth processes, and were pivotal to Europe’s Golden Age. In a similar vein, these policies were imperative to the rapid expansion in post-war Japan, the recent growth of China, the development of East Asian miracles, and the growth of ‘other’ emerging economies¹⁸.

#5) Repurposing the £125bn Term Funding Scheme: The set-up of the current banking sector is not interested in providing the vital patient strategic finance needed for a successful green transition. A significant share of bank credit is directed towards mortgages (43%) and consumer loans (14%), with very little lending (8.5%) for businesses. Of the business loans, only 2-3% of all bank lending is for SMEs that form the backbone of our economy – 99.9% of UK businesses are SMEs, 60% of private sector jobs come from SMEs, while 40% of GDP is derived from SMEs.

Better use should be made of the Bank’s existing Term Funding Scheme, where the Bank has already created £125 billion of new central bank reserves to lend short-term (four years) at low interest to the

banking system. Significantly, there are no real conditions attached to this subsidy to the banking sector – only that it cannot be used for lending to the financial sector.

Accordingly, the TFS scheme reinforces the status quo and is not designed to tackle the fundamental problem of how banks allocate credit. Bank credit is still fundamentally misaligned with achieving a green transition; not enough finance is available for patient strategic green finance. The TFS scheme should be re-purposed. As the banking system repays the Bank for these loans, the Bank should re-invest the proceeds more strategically – perhaps via a public investment bank or regional community banks – to finance low-carbon infrastructure projects.

¹ Prudential Regulatory Authority, (2018). 'Transition in thinking: The impact of climate change on the UK banking sector'. Bank of England. Available at: <https://www.bankofengland.co.uk/news/2018/september/transition-in-thinking-the-impact-of-climate-change-on-the-uk-banking-sector>

² Ryan-Collins, J. and van Lerven, F. (2017). 'Central banks, climate change, and the transition to a low-carbon economy'. The New Economics Foundation. Available at: https://neweconomics.org/uploads/files/NEF_BRIEFING_CENTRAL-BANKS-CLIMATE_E.pdf

³ Network for Greening the Financial System (2018). 'NGFS first progress report'. Available at: <https://www.banque-france.fr/sites/default/files/media/2018/10/11/818366-ngfs-first-progress-report-20181011.pdf>

⁴ Intergovernmental Panel on Climate Change (2018). 'Global Warming of 1.5°C'. WMO and UNEP. Available at: http://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf

⁵ Carney, M. (2015). Breaking the tragedy of the horizon - climate change and financial stability- speech by Mark Carney 29 September 2015. Available at: <http://www.bankofengland.co.uk/publications/Pages/speeches/2015/844.aspx>

⁶ Carbon Tracker Initiative (2012). Unburnable Carbon: are the world's financial markets carrying a carbon bubble? Available at: <https://www.carbontracker.org/wp-content/uploads/2014/09/Unburnable-Carbon-Full-rev2-1.pdf>

⁷ Carbon Tracker Initiative (2012). Unburnable Carbon: are the world's financial markets carrying a carbon bubble? Available at: <https://www.carbontracker.org/wp-content/uploads/2014/09/Unburnable-Carbon-Full-rev2-1.pdf>

⁸ Van Lerven, F. (2018). 'Alarm bells begin to ring on the financial risks of climate change'. The Huffington Post. Available at: https://www.huffingtonpost.co.uk/entry/alarm-bells-begin-to-ring-on-the-financial-risks-of-uk_5ad5ec57e4b0d9951b85ba27

⁹ Mercure, J.-F., Pollitt, H., Vinuales, J. E., Edwards, N. R., Holden, P. B., Chewpreecha, U., Salas, P., Sognnaes, I., Lam, A. and Knobloch, F. (2018). 'Macroeconomic impact of stranded fossil fuel assets', Nature Climate Change, 8, 588-593.

¹⁰ Battiston, S., Mandel, A., Monasterolo, I., Schu tze, F. and Visentin, G. (2017). 'A climate stress-test of the financial system', Nature Climate Change, 7, 283-288.

¹¹ KPMG (2017). KPMG Survey of Corporate Responsibility Reporting 2017. Available at:

<https://home.kpmg.com/xx/en/home/insights/2017/10/the-kpmg-survey-of-corporate-responsibility-reporting-2017.html>

¹² Boston Common Asset Management (2018). Banking on a low-carbon future. Available at: <http://news.bostoncommonasset.com/banking-on-a-low-carbon-future/>

¹³ Matikainen, S., Campiglio, E., and Zenghelis, D., (2017). The climate impact of quantitative easing. Policy brief for Grantham Research Institute on Climate Change and the Environment. Available at: <http://www.lse.ac.uk/GranthamInstitute/publication/the-climate-impact-of-quantitativeeasing/>

¹⁴ Letter to the financial times (2018). Central banks can lead in disclosure of climate risks. The Financial Times June 5th, 2018. Available at: <https://www.ft.com/content/37eb446e-64db-11e8-a39d-4df188287fff>

¹⁵ Network for Greening the Financial System (2018). 'NGFS first progress report'. Available at: <https://www.banque-france.fr/sites/default/files/media/2018/10/11/818366-ngfs-first-progress-report-20181011.pdf>

¹⁶ Mésonnier, J.-S., C. O'Donnell, and O. Toutain (2017), "The Interest of Being Eligible", mimeo Banque de France. Available at: <https://publications.banque-france.fr/en/interest-being-eligible>

¹⁷ Van Lerven, F. and Ryan-Collins, C. (2018). Adjusting banks' capital requirements in line with sustainable finance objectives. New Economics Foundation and UCL Institute for Public Purpose. Available at: <https://www.ucl.ac.uk/bartlett/public-purpose/sites/public-purpose/files/briefing-note-capital-requirements-for-sustainable-finance-objectives.pdf>

¹⁸ Van Lerven, F. (2018). 'Credit Where it's Due'. The New Economics Foundation. Available at: <https://neweconomics.org/2018/09/take-control-of-credit>



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+44 (0)20 7820 6300

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