

## 2.4

# Greening the UK Financial System

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## 1— Introduction

The decarbonisation of the UK economy is now more urgent than ever. This transition will require a significant amount of large-scale investments in low-carbon infrastructure, energy efficiency and green technologies. One of the main aims of a Green New Deal will be to promote such investments.

But how will these investments be financed? Clearly, public finance will play a key role. Both tax revenues and debt finance need to be used in order to fund the transition to a low-carbon economy. However, public finance will not be enough. Private finance will also be very important. This means that the financial system needs to be radically reshaped in order to support these investments and to lead, at the same time, to a rapid reduction in those activities that increase carbon emissions.

There are at least two reasons why a radical transformation of the UK financial system is necessary. First, the amount of funding that the financial system provides to 'green' projects is negligible. There are some initiatives by banks, including UK ones, which intend to support green lending<sup>1</sup>. However, this lending is still extremely low.

Second, and most importantly, the current financial system is excessively 'brown'. The big banks finance a significant number of carbon-intensive projects. For example, Barclays is one of those UK banks that has funnelled a lot of money to fossil fuels. During the 2016-2018 period this amount of money was equal to \$85 billion<sup>2</sup>. In addition, it has been shown that the corporate quantitative easing (QE) programme that the Bank of England has implemented over the last years has supported much more those sectors that have a higher contribution to the generation of greenhouse gas emissions rather than those that are less environmentally harmful<sup>3</sup>. Finally, the existing banking system provides a large amount of consumer loans. Many of these loans are used in order to buy consumer goods that are carbon- and energy-intensive. In this way banks enhance our unsustainable way of living.

So, the current financial system is not fit for purpose. How can it be transformed in order to support a Green New Deal? I set out below four broad proposals that could make the UK financial system greener.

## 2— Proposal 1: Developing and supporting green banks

The UK banking is largely oligopolistic. A small number of banks dominate the sector, such as HSBC, Barclays, RBS and Standard Chartered<sup>4</sup>. An implication of that is that too much power has been concentrated in the hands of too few bankers. Although these banks have an incentive to represent themselves as 'sustainable', this is not enough to induce them to have a strong commitment to support massively green projects and reduce drastically the amount of fossil fuel and other carbon-intensive projects that they support.

These banks are too driven by their goal to increase steadily their profits.

There is thus an urgent need to develop and support banks that have explicit 'green' targets. The development of such banks would not only have a substantial contribution to the financing of the low-carbon transition. It would also put more pressure on the big banks to go greener and it would potentially reduce the oligopolistic features of the UK banking system.

For the UK, a first step in this direction would be to radically redefine the role of the Green Investment Bank. This bank was founded in 2012. Despite the fact that it was initially public, it was sold to the Macquarie Group in April 2017. This has significantly reduced its capacity to play a strategic role in supporting the shift to a low-carbon economy in the UK<sup>5</sup>.

The re-development of the Green Investment Bank could draw on the experience of other green investment banks, like Kreditanstalt fuer Wiederaufbau (KfW)<sup>6</sup>. KfW is a public green investment bank in Germany that has played a key role in low-carbon energy financing. KfW is able to provide a large amount of green funding at a low cost not only because it receives public subsidies, but also because the bonds that it issues, which are bought by both domestic and international investors, are guaranteed by the government. KfW also has a commitment to provide lending to small and medium enterprises (SMEs) that are willing to support green energy projects.

But one large Green Investment Bank will not be enough. In order to deal better with the different needs of each UK region, a strong network of regional green banks needs to be developed. The Green Investment Bank could support these banks, for example, by channeling to them part of the funding that it can raise in capital markets, as KfW does in Germany<sup>7</sup>.

At the same time, the UK government should support banks that are socially responsible and have explicit environmental targets. Triodos Bank is such an example. This bank

is based in the Netherlands, but it also operates in the UK. Triodos funds exclusively green projects that are socially responsible<sup>8</sup>. One way for the government to support banks like Triodos would be to provide tax credit incentives to those that invest in the financial products of those banks.

### 3— Proposal 2: Greening the Bank of England's monetary policy

Over the last few years, the Bank of England and other central banks around the globe have implemented QE programmes. Via these programmes they have bought a large amount of government and corporate bonds. By buying these bonds they have reduced their yields, as well as the interest rate of other financial assets. The overall aim has been to stimulate economic activity, bringing inflation closer to the target of 2%<sup>9</sup>.

However, as mentioned above, research has shown that the corporate QE programme implemented by the Bank of England has favoured those sectors that contribute more to the generation of greenhouse gas emissions. Therefore, instead of continuing implementing a QE based on the existing criteria, the Bank of England could alternatively buy only green bonds via a green QE programme<sup>10</sup>. In this way it could lower the cost of funding of those green projects that rely on bond finance.

Research has shown that if a green QE programme was to be implemented around the world, global warming could be reduced<sup>11</sup>. The Bank of England could play a leading role in this area by becoming the first central bank that will implement such a programme. Importantly, a green QE programme should not be temporary in nature, as is the case with the current QE programmes. *It should be a permanent programme with a long-run horizon and it should be considered as a kind of green industrial policy* by the Bank of England based on the number of criteria that reflect credit quality. However, currently these criteria do not take into account the role of climate change.

But monetary policy is not confined to QE. Another very important aspect of

monetary policy is the so-called 'collateral framework'. In order for commercial banks to receive liquidity from the Bank of England, they need to use specific financial assets as collateral<sup>12</sup>. Collaterals are a kind of a guarantee: if banks cannot repay their debt the Bank of England can sell the assets used as a collateral in order to avoid financial losses. The assets that can serve as collateral are determined by the Bank of England based on the number of criteria that reflect credit quality. However, currently these criteria do not take into account the role of climate change<sup>13</sup>.

In addition, the Bank of England decides the value of the 'haircut' that corresponds to each asset. What is the haircut? The haircut is the difference between the value of an asset and the amount of liquidity that a commercial bank can obtain by using this asset as collateral. If, for example, a bond is worth £100 and the haircut is 10%, the amount of liquidity that a bank can get is equal to £90.

How could the collateral framework be aligned with climate change? One way would be to introduce climate-related criteria for the assets that can serve as collateral. For example, loans or securities that are linked with projects that generate a large amount of greenhouse gas emissions could be excluded from the collateral framework. In addition, the Bank of England could include in this framework more assets that are related with projects on energy efficiency and renewables.

Additionally, the Bank of England could adjust haircuts depending on the climate impact of each asset: haircuts on green assets could go down and haircuts on brown assets could go up. By doing so, the demand for green assets by banks could increase and the demand for brown assets could decline. This would benefit the financing of the low-carbon transition.

Interestingly, the Bank of England has recently announced that they intend to disclose the way that they manage risks that have to do with climate change<sup>14</sup>. Although this is a step in the right direction, we are still

very far from the implementation of a green QE or the development of a climate-aligned collateral framework.

### 4— Proposal 3: Greening financial regulation

An important aspect of financial regulation refers to the amount of capital that banks need to hold in order to deal with financial distress. The higher the amount of capital that a bank keeps, for a given level of risk, the safer it is considered to be since capital can be used to absorb losses in the case of loan defaults. However, banks typically avoid holding a large amount of capital since this can reduce the return on investment for their shareholders. This is why financial regulators step in and require that banks hold capital based on the riskiness of their assets.

**There is an urgent need for the Green Investment Bank to become public again and support the green economy much more actively.**

How could capital requirements become greener? There are two ways for this to happen<sup>15</sup>. First, banks could be asked to hold less capital against green loans. This is called the 'green supporting factor'. Such an adjustment of capital requirements could potentially make banks provide more green loans to the economy. However, asking banks to hold less capital could undermine financial stability<sup>16</sup>.

Second, financial regulators could impose higher capital requirements for brown loans. This is the so-called 'brown penalising factor'. Such requirements would reduce the finance that banks provide to high-carbon projects. It could also make them reallocate loans towards green projects. However, an abrupt implementation of the 'brown penalising factor' could reduce economic activity substantially since brown activities and sectors consist a large part of our carbon-based economy.

Both of these forms of green differentiated capital requirements could potentially reduce greenhouse gas emissions and thus global warming. So, despite the fact that they might have some potential adverse side effects that should be carefully analysed, they can be used as tools to promote the low-carbon transition.

However, none of these suggestions can be implemented without having a clear taxonomy on what constitutes a green and a brown asset. Such a taxonomy would also be extremely useful for the implementation of the green monetary policy measures mentioned above. The European Commission has recently worked on the development of a green taxonomy<sup>17</sup>. UK financial regulators could benefit from this. However, policy makers have not yet clearly supported the development of a brown taxonomy, which is equally essential and urgent.

### 5— Proposal 4: Making climate-related financial disclosures mandatory

Climate change is very likely to have an adverse impact on financial stability<sup>18</sup>. First, it can make events like droughts, floods and hurricanes more frequent and more severe. These events can destroy physical capital, such as factories and houses, reducing the ability of households and firms to repay their debt. This in turn could affect the balance sheet of banks, if the risks are uninsured, or the balance sheet of insurance companies, if



the risks are insured. These are the so-called 'physical risks'.

Second, the implementation of climate policies, the change in investors' or consumers' sentiments or new technologies could cause an abrupt reallocation of funds from brown assets to green assets. Such a reallocation could decrease the price of brown stocks and bonds and could cause defaults on brown loans. In that case, the balance sheet of the financial institutions that hold brown assets would be adversely affected. These are the so-called 'transition risks'.

Banks and insurance companies should not be allowed to ignore these risks. They should disclose such risks using widely accepted methodologies. This would allow financial regulators to be aware of the exposure of the financial institutions to climate risks and act upon this. It would also allow investors to be aware of the greenness/brownness of their portfolio and potentially reallocate their investments accordingly.

Some steps in this direction have been made. In 2017 the Task Force on Climate related Financial Disclosures (TCFD) was established. TCFD, which has been actively supported by the Bank of England, intends to develop methodologies that will allow financial companies to consistently disclose climate-related risks. However, their approach is that this should be done on a voluntary basis. This is not enough. The disclosure of climate-related financial risks should be mandatory.

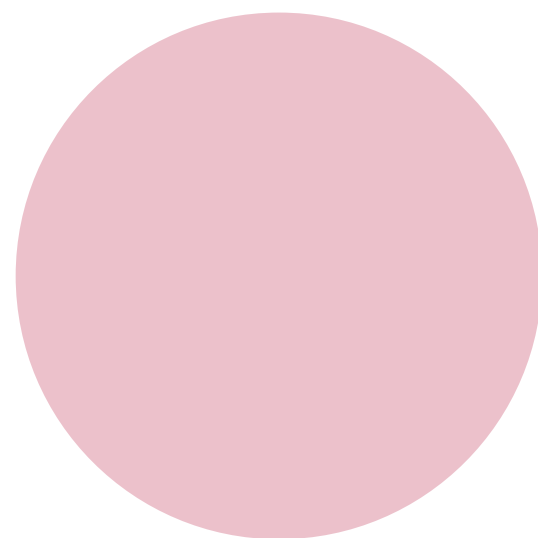
The development of climate stress test methodologies by academics could also contribute to the establishment of mandatory climate-related financial disclosures<sup>19</sup>. Although these methodologies are at an early stage and there are various challenges that need to be addressed<sup>20</sup>, it is expected that they will significantly improve over the next years. Policy makers should be ready to take up the challenge of asking financial companies to implement such methodologies. The Bank of England has started working in this direction, but these efforts need to be intensi-

fied<sup>21</sup>. Moreover, some banks have conducted some kind of environmental stress tests but the majority of them are not assessing the climate risks that they might face<sup>22</sup>.

## 6— Reshaping finance as a key element of a Green New Deal

A Green New Deal will not be sufficiently effective if the financial system does not undergo a radical green transformation. Redirecting credit and funds from brown activities towards green ones will significantly facilitate the transition to a low-carbon economy. It will also accelerate the reduction of greenhouse gas emissions, which is so urgently needed in order to keep global warming close to 2 degrees and prevent a 'Hothouse Earth' future.

But such a transformation is a very challenging task. Implementing the proposals outlined above will require a radical rethinking of the role of the government, the Bank of England and the financial institutions in a world in which environmental breakdown is more likely than ever in human history. It will also require the coordination of many think tanks, academics and different types of stakeholders. We should be ready to take up the challenge.



### Footnotes

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<sup>11</sup>Yannis Dafermos et al, [“Can Green Quantitative Easing Reduce Global Warming?”](#), Foundation for

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<sup>12</sup>Bank of England, [“Sterling Monetary Framework, summary of collateral eligible for the Bank’s operations”](#), 6 February 2019.

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<sup>14</sup>Bank of England, [“Bank of England to disclose assessment of how it manages climate-related financial risk in the 2019/20 annual report”](#), Accessed June 2019.

<sup>15</sup>High Level Expert Group, [“Financing a sustainable European economy. final report 2018 by the High Level Expert Group on sustainable finance”](#), European Commission, 2018.

<sup>16</sup>Frank Van Lerven & Josh Ryan-Collins, [“Adjusting banks’ capital requirements in line with sustainable finance objectives”](#), Briefing Note, New Economics Foundation, February 2018.

<sup>17</sup>European Commission, [“Regulation of the European Parliament and of the Council on the establishment of a framework to facilitate sustainable investment”](#), accessed June 2019.

<sup>18</sup>Matthew Scott et al, [“The Bank of England’s response to climate change”](#), Bank of England Quarterly Bulletin Q2, 98-109, (2017).

<sup>19</sup>Stefano Battiston et al, [“A climate stress-test of the financial system”](#), Nature Climate Change, 7 (4), 283-288 (2017).

<sup>20</sup>Emanuele Campiglio et al, [“Climate change challenges for central banks and financial regulation”](#), Nature Climate Change, 8 (6), 462-468.. (2018).

<sup>21</sup>PwC, [“PRA to include climate risk in stress tests for insurers”](#), accessed June 2019.

<sup>22</sup>Lauren Compere, [“Banking on a low-carbon future: are the world’s largest banks stepping up to the risks and opportunities of climate change?”](#), Impact Report 2018, Boston Common Asset Management, 2018.

