**Are green financial instruments a viable way of making the UK financial sector sustainable?**

Introduction: The Challenge

As the consequences of anthropogenic climate change amass ever more, it becomes increasingly urgent that socioeconomically integral industries find ways of adapting and conforming to sustainability targets. Risks are now myriad not only for climate related disasters, but also for unparalleled financial instability (Lamperti et al. 2019). The extant framework of UK banking exacerbates this with its bias towards short-term brown investments (Campiglio 2016). The goal of this brief is to propose a set of innovations that will encourage the effective transition of the UK financial sector towards sustainable, low-carbon operation, and ensuring continued financial stability in doing so. Precedents have been set for the innovations that are to follow, though they tend to be pioneered by economies smaller than that of the UK as a result of the correlation between developing nations and imminent exposure to climate-related hazards (D’Orazio & Popoyan 2019).

Context

The UK is one of the oldest economies in the world. As a result, its financial institutions are deeply entrenched in their ways suffering from first-mover disadvantages. Particularly following the decline of British manufacturing in the post-colonial period, these institutions specialised to an impressive degree in the area of financial services. All this amounts to a stubborn industry reluctant to change. Though the financial service exports of the UK continue to provide solid gains to the country’s gross domestic product (GDP) - 7% by recent estimates (The Economist 2020) -, the bias towards short-term brown investments have it geared towards fossil fuel extraction and other ecologically detrimental industries which lack long-term viability. This not only risks redundancy as the rest of the world and the UK’s trading partners make the transition to environmental sustainability, but some estimates have forewarned a heightened vulnerability to banking crises related to climate change (Lamperti et al. 2019).

 It will be important to address the “green finance gap”. In contrast to legacy energy providing industries, the renewable energy industry is typically lacking the reserve capital to fund the upfront costs of their endeavours. They are thus much more reliant on external finance in the form of investment from banks and financial institutions (Campiglio 2016).

From a wider lens it becomes clear that the global financial crisis of 2008 had a huge impact on how banks consider investment. New regulations were compiled under the Third Basel Accords in an effort to correct systemic issues in the structure of the global economy to prevent similar threats. Whilst these regulations proved to be effective in mitigating market liquidity risk, critics have argued they exacerbated market preference for short-term investments – which tend towards the unsustainable - at the expense of climate-friendly activities (Gersbach & Rochet 2012). This short-term, shareholder-centred culture is also symptomatic of a creeping culture of financialization, defined by Lapavistas (2014) as “the penetration of the financial system into every nook and cranny of society, including housing, education, health and other areas of life that were previously relatively immune.” The influential tendrils of finance are unlikely to be fully dislodged before any climate-related reckoning. Therefore, this brief seeks compatibility between the financialized culture of UK banking and the urgency of the environmental crisis. It is vital in this case that practical and innovative methods are seized upon to tackle this most pressing of issues.

The Innovation: Making the Case

* Common sustainable finance taxonomy
	+ This innovation will help issuers of currency and loans to navigate the necessary transition into a low-carbon economy by translating environmental and climate change-associated risks into financial and banking syntax. In doing so, nature as a qualitative whole will be more easily effectively calculated.

A common sustainable finance taxonomy refers to the issuance of mutually agreed upon definitions, targets and guidelines that would aid the UK banking associations and financial regulators to transition towards pro-environmental operation (Kurisu 2015). There are examples of this in existing research (Tripathy 2017) and at the supranational scale available to the UK but, so far, the UK itself has been reluctant to adopt this approach (European Commission 2019). From a wider environmental perspective this is deeply unfortunate, but from a development perspective it is largely unsurprising. This taxonomy would help to ensure coordination between currency/loan issuers in their efforts to navigate the necessary transition into a low-carbon economy. Translating nature as a qualitative whole into financial syntax would enable an effective, calculable measurement of the socio-environmental successes and failures of individual financial activities. Tripathy has shown the potential for the simple establishment of working groups comprised of financial and ecological experts in an effort to hybridise the concerns of the respective fields. In utilising interdisciplinary knowledge, the common taxonomy of sustainable finance would aim to marry the efficiencies of finance with the urgent ambition of ecology.

One outstanding benefit of this innovation is that it relies entirely on human coordination and is thus a relatively cheap paradigm shift. There is no need to update or upgrade any technologies, it is simply a shift in perspectives and a reassessment of the trade-offs between the environment and finance. Tripathy (2017) has shown the potential for the simple establishment of working groups comprised of financial and ecological experts in an effort to hybridise the concerns of the respective fields. In utilising interdisciplinary knowledge, the common taxonomy of sustainable finance would aim to marry the efficiencies of finance with the urgent ambition of ecology. Care must be taken that this taxonomy is applied with caution and in line with the other policies recommended here so as to prevent an uncritical influx of funding towards investments that meet the “green” standards, despite them not being underfinanced. This potentially risks creating “green asset bubbles”. Moreover, as seen in the Chinese experience, non-binding guidelines may be insufficient to affect banking practices in any meaningful way; mandatory lending rules may be necessary in this regard (Volz et al 2015).

* Green macro-prudential measures
	+ Measures such as credit ceilings and countercyclical capital buffers will help to insulate the banking sector against climate change-associated risks. Not only will this protect the banking sector, but it will make longer-term green investments more appealing, thus strengthening the green bond market and increasing the cash flow towards tackling climate change.

 What is being proposed here is the introduction of prudential measures that pre-empt the imminent instability of the financial system associated with climate change. Macroprudential measures – policies that seek to stabilize the financial system as a whole (Schoenmaker & Tilburg 2016) - are particularly appealing because they are not novel instruments in the financial sector. Practices such as introducing minimum credit floors and maximum credit ceilings have been used since the 2008 financial crisis to limit banks’ exposures to risk from certain sectors and activities. Similarly, countercyclical capital buffers – a measure used to reinforce banks and financial institutions against the systemic risks with a transitioning credit cycle – were proposed as recently as the Third Basel Accords in 2009.

Two tried and tested such examples are maximum credit ceilings on carbon-intensive activities and minimum credit floors which mandate a portion of a banks’ allocation of credit to green investments. In implementing such measures, the UK financial regulator would incentivise banks to lend to more “green” sectors. This creates a mutually enforcing necessity between the introduction of green macroprudential measures and the innovation noted above. Without clearly defined “green” guidelines these measures could exacerbate the issue of greenwashing (Tripathy 2017), but the combination of green finance guidelines and restricted lending has been implemented in Brazil with some success.

In 2008, in a national economy similarly driven by services, Banco Central do Brasil introduced resolutions around environmental regulation seeking to restrict the extension of credit to firms that operated in sensitive geographic areas, notably the Amazonas region. Concurrently, the Brazilian Banking Association – comprised of commercial, but more significantly five state-owned banks – voluntarily adopted a set of green finance guidelines aimed at incentivising socio-environmentally conscious investment for the sake of nationwide development and ecological preservation (Monzoni et al. 2014).

* Green bond market
	+ The term ‘green bonds’ refers to bonds whose proceeds are used to finance environmentally-friendly projects (Mercer [2015](https://www.tandfonline.com/doi/full/10.1080/20430795.2018.1498617?scroll=top&needAccess=true)), such as renewables, water and energy efficiency, bioenergy, and low carbon transports (Campiglio [2016](https://www.tandfonline.com/doi/full/10.1080/20430795.2018.1498617?scroll=top&needAccess=true)).

Issuing green bonds to establish a green bond market is an effective way, in combination with a suitable sustainable taxonomy and lending restrictions/incentives, of delineating the green financial market from that of traditional bond issuance. Green bonds certified by an independent review in particular have the key guarantee that all of the proceeds will be used to finance appropriate projects. As such, the green bond market is somewhat insulated from the notoriously volatile whims of the modern financial market. By earmarking finance specifically for pro-socioenvironmental investment, this measure is the most direct innovation offered here, whilst the innovations above implore structural and political review. A green bond market, if successful, would ensure a narrowing of the green finance gap. In just a decade, from 2007’s first green bond issuance of USD $1 billion to 2017, the green bond market grew to USD $895 billion (Banga 2019).

Without the change in banking and financial culture accompanying a green taxonomy and macroprudential measures, the green bond market would stagnate. Sustainable investments are widely viewed as longer term, “patient” investments due to the misconception that they carry a less favourable yield to maturity ratio. While this has been evidenced in some cases, it is generally not the case. In fact, the risk/return profile of green bonds has been shown empirically to match those of conventional bonds. However, even such conceptions of risk are remnants of a short-term, shareholder-centric culture that must be shed if green bonds are to be successful as well as effective.

The preceding policy innovation takes a three-pronged approach to improving the sustainability of the UK financial sector. On their own, each innovation would go some way to engendering this green transition. However, it is the author’s belief that, in combination, these mutually reinforcing measures are likely to carry much greater effectiveness. Firstly, the rules of engagement must be established, and this is achieved by compiling a common sustainable financial taxonomy. This includes properly defining terms like “green” and “pro-environmental”. Once established, these definitions, targets and guidelines ensure the accurate application of the subsequent two innovations: green macroprudential instruments and the issuance of green bonds. As argued by Mark Carney (2015), the “green transformation” of the global economy may occur alongside high market volatility and disturbances in capital flows, causing systemic risks for the financial sector which necessarily implies risks for the socioeconomic wellbeing of its stakeholders. It is therefore necessary to make the transition appealing, effective and safe.

Limitations

* Common sustainable finance taxonomy

The key weakness of a green taxonomy specific to the UK is the potential for alignment issues with existing taxonomies applied more widely. As noted, developing and emerging economies are generally pioneering in sustainable finance regulation. Consequently, green financial guidelines in such contexts may be more radical than UK financial institutions are ready to comply with. This risks conflicts in the arena of international trade.

* Green bond market

Developing a market to oversee investments in environmental projects is arguably exacerbating a culture of financialization and risks the commodification of nature. As mentioned above, there is also the risk of uncritical investment in green assets leading to an asset bubble. This can be counteracted by the strict certification of green bonds, independently assessed, though at scale this may be more laborious than financial markets are willing to abide.

Individually, these measures suffer from the same limitation of perhaps not going far enough to tackle the unsustainability of UK finance.

Recommendations

It is vital that this transition to a greener financial sector builds in areas of inclusivity. British industries likely to lose out as a result of a sustainable transition are predominantly employers of the working class and operate in areas outside of London – the UK’s financial hub. Any low-carbon transition needs to be accompanied by supporting employees and businesses with training and opportunities within this sustainable economy. This can be done by democratizing the transition i.e. bringing union leaders and business owners into discussions about the green taxonomy. Seize on the interdisciplinary knowledge and experience of the populace in an attempt to establish a just financial sector that works for the maximum amount of people.

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