Macrofinancial policies for a green and caring economy

Feminist Green New Deal Policy Paper

FEMINIST GREEN NEW DEAL

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UK Feminist Green New Deal Policy Paper

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Executive summary

The transition to a green and caring economy necessitates fundamental changes to how our economies and societies are organised, produced and reproduced. A key component of these changes is the redesign of macroeconomic and financial policies. These policies determine how the public sector invests in physical and social infrastructure, how governments use taxes and subsidies to support or prevent specific types of economic activities, as well as how the financial system provides credit to the real economy. Macrofinancial policies have, therefore, significant implications for gender equality, our well-being and the environmental effects of our economies.

This report sets out our vision for transforming UK macrofinancial policies in line with the transition to a green and caring economy. The main messages and recommendations of the report are as follows:

- Public investment and public sector jobs that support decarbonisation and care should be put at the core of the UK fiscal strategy, with targeted subsidies and taxation playing a supportive role in reducing the environmental footprint of the activities and investments of the private sector. Fiscal policies need to be conducive to the transformation of polluting activities (for example, through re-tooling and a reduction of their carbon intensity), the contraction of sectors that are inconsistent with the Paris Agreement targets (such as fossil fuels) and the expansion of sectors with a low environmental footprint that are conducive to a better quality of life (such as care).
- Low-carbon transport, green social housing, caring activities and the creation of parks and green spaces should be the focus of a public investment strategy that will target both the decarbonisation of our physical infrastructure and the expansion of social infrastructure. The design of public investment projects, such as the construction of social housing units and the development of urban transport systems, should take explicitly into account everyday practice and facilitate caring responsibilities. But they should also be combined with interventions and regulatory initiatives that transform our consumption norms.
- No one should be left behind because of the decarbonisation of our economies. Some workers might become unemployed due to the decline in high-carbon activities. To achieve a just transition for these workers, appropriate reskilling and upskilling are essential.
- The funding and financing of public investment and public sector jobs can rely on a combination of tools: (i) progressive taxation, wealth-related taxes and energy windfall taxes, (ii) the purchase of government bonds by the Bank of England within a new fiscal-monetary policy coordination institutional framework, and (iii) the issuance of government bonds linked specifically to the green and caring economy. A potential increase in public debt should not be viewed as a barrier, in contrast to what has been argued in standard austerity narratives.

- Public banking should be expanded and play a central core in the financing of green and caring activities.
- The decarbonisation of the UK private financial system should include both the operations of the Bank of England and financial regulation and should rely on a ‘carrot and stick’ approach that encourages the financing of green activities and discourages the financing of dirty activities.
- The current financial system suffers from a gender bias and does not support activities that are essential for developing a caring economy. A diversity-based transformation of the UK financial system is, therefore, essential. Gender and diversity criteria should be introduced in the lending practices and operations of public banks, private banks and the Bank of England.

Introduction

We urgently need to achieve a transition to an economy and society in which our environmental footprint is consistent with the boundaries of a finite planet and, at the same time, well-being and care are at the core of how production and reproduction are organised. Developing a green and caring economy requires fundamental changes in the labour market, environmental regulation, our consumption patterns, social security policy and the structure of social reproduction.[1] But it also requires transformative changes in the design and implementation of macroeconomic and financial policies.[2] So far, these policies have exacerbated the environmental crisis and have failed to seriously consider gender equality issues.

Recently, the greening of macroeconomic and financial policies has received growing attention in policy making. Yet, suggestions for decarbonising the macroeconomic and financial system typically fail to consider the central role that care plays in the function of our economies and societies – and how capitalist development has under-valued this role.[3] They also ignore the fact that public care services can be conducive to decarbonisation and that environmental policies can exacerbate gender and intersecting inequalities if they are not designed with an explicit purpose to address such inequalities.

The net zero strategy of the UK government – which intends to make UK fiscal policies greener – fails to consider and address the care crisis and gender inequalities.[4] It also has too much faith in the ability of the private sector to carry out the investments that are necessary for the green transition. Market-based solutions (such as carbon pricing), which are at the core of this strategy, will not by themselves achieve the rapid decarbonisation that we need. They can also have significant distributional implications, since they can increase the cost of energy-related spending, such as heating, cooking and transport, which typically represents a significant proportion of the income of poor people and is linked with activities that, due to gender norms, are primarily performed by women.[5] On the contrary, public investment and the creation of public sector jobs – which are fundamentally important for green transformations and the development of a caring economy – play only a minor role in the plans of the government.

The government has also recently set out a Green Finance Strategy.[6] This strategy relies on a deregulation approach that puts private initiatives at its core and aims at making the City of London the global green finance centre. This strategy risks promoting greenwashing in the financial sector and does not intend to penalise carbon financiers despite their significant

1 Mastini, R., Kallis, G., Hickel, J. (2021). A green new deal without growth?, *Ecological Economics*, 179, 106832; Diski, R. (2022). Sustainable lifestyle changes for a green and caring economy, Women's Budget Group; Howard, M. (2022). Managing risk through security: Social security's contribution to tackling climate change and gender inequality, Women's Budget Group; Johnston, A. and Reis, S. (2022). Labour market changes for a green and caring economy, Women's Budget Group; Onaran, Ö. and Jump, R.C. (2022). A shorter working week as part of a green caring economy, Women's Budget Group.

2 For an analysis of green fiscal policies, see Dafermos, Y. and Nikolaidi, M. (2019). Fiscal policy and ecological sustainability: A post-Keynesian perspective, in Arestis, P., Sawyer, M. (eds.) *Frontiers of Heterodox Macroeconomics*, Palgrave Macmillan, Basingstoke, pp. 277-322. For a description of green monetary and financial policies and the supportive role that they can play in the transition to a low-carbon economy, see Dafermos, Y., Gabor, D, Nikolaidi, M. and van Lerven, F. (2021). Greening the UK financial system - a fit for purpose approach, SUERF Policy Note No. 226, March.

3 Care is an integral part of social reproduction and includes activities, such as education, health care, childcare and social care; see Himmelweit, S. (2017). Changing norms of social reproduction in the age of austerity, Ochanomizu University, Departmental Bulletin Paper, 151, 1-16.

4 HM Government (2021). Net zero strategy: Build back greener, October.

5 Chalifour, N.J. (2010). A feminist perspective on carbon taxes, *Canadian Journal of Women and the Law*, 22 (1), 169-212; Price, R. (2020). Lessons learned from carbon pricing in developing countries, Institute of Development Studies.

6 HM Government (2019). Green finance strategy transforming finance for a greener future, July.

contribution to the environmental crisis.[7] It also completely ignores the gender bias in the provision of financial services.[8]

In this paper, we provide an alternative vision for transforming the UK macrofinancial policies in line with a green and caring economy. According to our vision, public investment and public sector jobs should be put at the core of the UK fiscal strategy, with subsidies and taxation playing a supportive role in reducing the environmental footprint of private sector activities and investment. Green fiscal policies need to be conducive to the green transformation of polluting activities (for example, through re-tooling and a reduction of their carbon intensity), the contraction of sectors that are inconsistent with the Paris Agreement targets (such as fossil fuels) and the expansion of sectors with a low environmental footprint that are conducive to a better quality of life (such as care). This needs to be accompanied by a just transition for workers, with appropriate reskilling and upskilling to ensure no one is left behind.[9]

Our vision also includes a fundamental transformation of the UK financial system. Public banking has a crucial role to play in financing the key activities conducive to a greener and caring economy. At the same time, the Bank of England and the UK financial regulatory authorities should adopt a 'carrot and stick' approach to greening the private financial system such that the financing of green activities is promoted, and the financing of dirty activities is discouraged.[10]

Crucially, a diversity-based transformation of the financial system is also essential. The current financial system suffers from a gender bias and does not support activities that are essential for developing a caring economy. It is, therefore, necessary for diversity and gender equality criteria to be incorporated in the lending practices of public and private banking and in the asset purchases and financing schemes of the Bank of England.

Our analysis does not explicitly address global environmental justice issues. These are, however, particularly important for the UK which has a high responsibility for the environmental crisis due to its cumulative emissions and its colonial past and continued extractive practices. Addressing environmental justice can range from taking initiatives that stop exploitation in the mining of raw materials necessary for the green economy to providing grants to the Global South for investing in climate adaptation, while reducing gender and other inequalities. The UK could also use its diplomatic power to push for more progressive international financial regimes, for example by supporting debt relief, climate reparations and reforming the International Monetary Fund and the World Bank along environmentally just lines.[11] Further detail on the international aspects of a green and caring economy are outside the scope of this report.

The report is organised as follows. The next section analyses the transformation that is required in fiscal policies, focusing on public investment, public sector jobs and subsidies. We then turn to the analysis of monetary and financial policies, which include public banking, the Bank of England's operations and financial regulation.

7 Dafermos, Y., Gabor, D, Nikolaidi, M. and van Lerven, F. (2021). Greening the UK financial system - a fit for purpose approach, SUERF Policy Note No. 226, March for green monetary and financial policies.

8 Hertz, N. (2011). Women and banks: Are female customers facing discrimination?, IPPR, November; Ongena, S. and Popov, A. (2016). Gender bias and credit access, *Journal of Money, Credit and Banking*, 48 (8), 1691-1724.

9 We should also take broader actions that counter misogyny and male privilege in decarbonisation plans. See Cohen, M. and MacGregor, S. (2020). Towards a feminist Green New Deal for the UK: A paper for the WBG Commission on a Gender-equal Economy, Women's Budget Group.

10 Gabor, D., Dafermos, Y., Nikolaidi, M., Rice, P., van Lerven, F., Kerslake, R., Pettifor, A. and Jakobs, M. (2019). Finance and climate change: A progressive green finance strategy for the UK, Report of the independent panel commissioned by Shadow Chancellor of the Exchequer John McDonnell MP.

11 See Brett, M. (2019). Reforming the Bretton Woods institutions to support a Global Green New Deal, CommonWealth.

Fiscal policies

The current green fiscal policy landscape in the UK

According to conventional accounting rules, public investment refers to investment in physical infrastructure. Accordingly, green public investment conventionally includes investment in low-carbon public transport (e.g. electric trains, electric buses and dedicated cycling lanes), green public buildings (e.g. schools, hospitals and social housing) and other green physical infrastructure (parks, green spaces etc.). As part of its 'Ten point plan for a green industrial revolution', the UK government announced a £12 billion government investment for the next decade.[12] This includes public investment in green transport, cycling and walking, wind power, the decarbonisation of buildings, as well as in the more controversial Carbon Capture and Storage (CCS) technologies.

Despite this being a step in the right direction, this plan suffers from several problems. Two of them that are important from our perspective are the following. First, the amount of public investment in physical infrastructure that has been promised falls short of the decarbonisation needs of the UK economy.[13] An implicit assumption in the government's plans is that this small increase in green public investment will be sufficient, along with other initiatives, to stimulate green private investment. Apart from the fact that this seems to be unrealistic, a fundamental limitation in the government's approach is that green public investment is not seen as a core tool for achieving the transition to a green economy. Second, the government fails to recognise that (i) spending on social care and other forms of social infrastructure improves people's future capabilities and, should, therefore be seen as a form of public investment[14] and (ii) social infrastructure services can have a low carbon intensity and can, thus, be conducive to the achievement of decarbonisation targets. As a result, the support of the caring economy is not part of the UK government's green industrial plans.

As far as green jobs are concerned, there is no consensus on how these jobs should be defined.[15] The UK government has committed to creating 2 million green jobs by 2030 to achieve the transition to a low carbon economy.[16] Yet, a key limitation of these plans is that the government has not specified how green jobs will exactly be identified and what specific measures it will use to monitor progress in achieving this target.[17] Furthermore, this target refers to both private and public sector jobs. This suggests that the government has no clear commitment to creating green public sector jobs specifically.

12 See HM Government (2020). The ten point plan for a green industrial revolution: Building back better, supporting green jobs, and accelerating our path to net zero, November and Press release: Prime Minister's ten point plan kickstarts green investment boom, October 2021.

13 The Guardian (2020). Is £12bn enough to get UK on track for net zero carbon emissions?, November.

14 Himmelweit, S. (2018). Care as investment in social infrastructure, Berry, C. (ed) *What We Really Mean When We Talk About Industrial Strategy*, British Academy, pp. 89-94.

15 See Johnston, A. and Reis, S. (2022). Labour market changes for a green and caring economy, Women's Budget Group.

16 See Green Jobs Taskforce (2021). Report to government, industry and the skills sector; Johnston, A. and Reis, S. (2022). Labour market changes for a green and caring economy, Women's Budget Group.

17 House of Commons Environmental Audit Committee (2021). Green jobs third report of session 2021-22, October.

Public investment and public sector jobs for a green and caring economy

If designed properly, public investment and public sector jobs have a strong role to play in improving the well-being of women and achieving environmental targets. It is necessary for green public sector jobs and public investment to improve both (i) physical infrastructure, which needs to be radically decarbonised, and (ii) social infrastructure (caring, health and education), which is low-carbon and needs to be expanded to address the caring crisis.[18] Massive investment in the care, health and education sectors would improve the well-being across our society, thereby improving equality and future capabilities.

We discuss below some examples of a public investment and public sector jobs strategy that would support a green and caring economy. Public transport is particularly important for women since they tend to use it more than men.[19] Expanding and improving public transport can reduce the time that women spend travelling as part of their caring and other responsibilities.[20] Investments that increase free access to low-carbon public transport can reduce the unpaid work of women who do not own a car. It can also reduce their spending. The creation of dedicated cycle lanes might be particularly beneficial for women: although in the UK women use bikes less than men (in contrast to other countries), creating more dedicated lanes can make women feel safer and can encourage them to cycle more.[21]

Investment in green social housing and the creation of parks and green spaces can support caring activities. In the UK, women have a higher need for social housing compared to men because they are poorer, on average.[22] Green social housing can lower energy costs[23] and facilitate caring activities if they are planned and built close to care networks. Moreover, due to their caring responsibilities, women tend to use parks and green spaces more than men. So, the increase in the availability of green spaces might improve women's well-being in particular and support their mental health.[24] Green spaces are also free public places where children can play and socialise.

In the case of public sector jobs, three issues are particularly important. First, women are over-represented in the public sector.[25] Therefore, the creation of more public sector jobs is more likely to benefit them. Second, women are currently under-represented in physical infrastructure jobs and over-represented in social infrastructure jobs.[26] Initiatives that address this imbalance need to be at the core of the public sector job strategy. Third, in the context of a just transition, some of the new public sector jobs need to support those moving out of high-

18 Johnston, A. and Reis, S. (2022). Labour market changes for a green and caring economy, Women's Budget Group; De Henau, J. and Himmelweit, S. (2020). A care-led recovery from Coronavirus, Women's Budget Group.

19 See Räty, R. and Carlsson-Kanyama, A. (2010). Energy consumption by gender in some European countries, *Energy Policy*, 38 (1), 646-649; Gill, R. (2020). Public transport and gender, Women's Budget Group; OECD (2020). Gender and environmental statistics: Exploring available data and developing new evidence, OECD better policies for a better life.

20 A better transport system can also increase women's labour force participation since it might make it more feasible for them to apply for jobs that require commuting.

21 Jelly, K. (2020). Want to make the streets safer for women? Start with cycling, The Guardian, March.

22 See Tunstall, B. (2017). Housing and gender, Women's Budget Group.

23 The UK government has announced a £50 million investment to improve the energy efficiency of social houses. See https://www.gov.uk/government/news/greener-homes-jobs-and-cheaper-bills-on-the-way-as-government-launches-biggest-upgrade-of-nations-buildings-in-a-generation.

24 In deprived areas green spaces can also contribute to less stress (see https://www.hutton.ac.uk/news/lack-green-space-has-bigger-impact-women).

25 See Women's Budget Group (2022). Spring budget 2022, pre-budget briefings: Women and employment and Gomes, P. and Kuehn, Z. (2019). Why do women favour working in the public sector?, Birkbeck Research Blog.

26 Elson, D. (2018). Intersections of gender and class in the distribution of income, *The Japanese Political Economy*, 44 (1-4), 7-24.

carbon sectors by providing reskill and upskill and giving them the opportunity to find jobs in sectors that will expand during the transition to a green and caring economy.[27]

How can green public investment programmes and public sector jobs be designed for their contribution to environmental sustainability to be maximised? First, emphasis should not only be placed on how direct emissions can be reduced through public investment and public sector jobs. It is equally important for circular economy practices (repair, re-manufacture, refill and servicing) to be adopted in the design of these programmes to reduce the overall environmental footprint.[28] Second, in cases in which green public spending leads to an increase in economic activity, some macroeconomic rebound effects might take place: people will see an increase in their income which might lead to more consumption and production and, therefore, to higher emissions and use of materials. The adverse effects of these rebound effects on the environment can be significantly restricted if higher public spending is accompanied by environmental regulation and changes in consumption patterns. Third, specific types of green investment can transform consumption norms. For instance, the expansion of free public transport might reduce people's need to rely on cars.[29] Recognising this transformative role of green investment is key.

The role of subsidies

The UK Government can financially support companies and households that take action to reduce their emissions, for example by investing in renewable energy technologies and energy efficiency. The government can do so through green subsidies that can, for example, take the form of transfers that cover part of firms' or households' green spending, especially for those on low incomes who are least responsible for the climate crisis and least able to insulate themselves from its effects. So far, the amount of green subsidies that have been provided by the UK government is limited (despite the recent increase).[30]

Green subsidies can support jobs linked to green activities. At the same time, they can reduce the cost of investing in renewable energy or energy efficiency. This could reduce energy bills, with positive effects on women's well-being and quality of life. Green subsidies could be also used to target the low-carbon transition of small and medium-sized enterprises (SMEs).

As in the case of public investment and public sector jobs, subsidies might increase economic activity generating macroeconomic rebound effects. Regulation and changes in consumption patterns could accompany the use of green subsidies for these rebound effects to be kept at a minimum.

Under specific conditions, subsidies can be combined with carbon taxes to accelerate the decarbonisation process. However, due to the adverse distributional effects of these taxes described in the introduction, their use should be accompanied by measures that offset the effects on inequality.

27 Reskilling people for the transition to a green economy has its own challenges. For example, people might need a sufficient period to acquire their new skills. So, paid educational leave and incentives are essential. See Cohen, M. and MacGregor, S. (2020). Towards a feminist Green New Deal for the UK: A paper for the WBG Commission on a gender-equal economy, Women's Budget Group.

28 Johnston, A. and Reis, S. (2022). Labour market changes for a green and caring economy, Women's Budget Group.

29 Dafermos, Y., Monserand, A. and Nikolaidi, M. (2022). Green public investment, consumption patterns and the ecological transition: A macroeconomic analysis, SSRN paper.

30 See The Guardian (2021). UK to offer £265m in subsidies for renewable energy developers, September; Mitchell, R. (2021). UK Government offering £265m in renewable energy subsidies, September.

How to fund spending for a green and caring economy

An important question that typically arises in debates about public investment, public sector employment and subsidies is how these can be financed or funded. Taxation is a key tool that can be used for this. First, the progressivity of the tax system needs to increase. A more progressive tax system will not only generate revenues, it will also reduce income and wealth inequality.[31] Second, wealth-related taxes should increase. These include taxes on capital and capital gains, taxes on land ownership and taxes on inheritance. There is a high potential for these taxes to generate significant revenues in the UK and decrease wealth inequality. They can also reduce gender inequality since women tend to have less wealth than men.[32] Third, corporate taxes need to increase for firms to contribute more to government revenues. This includes energy windfall taxes, such as the profit levy on oil and gas companies that was recently introduced by the UK government.[33] Importantly, energy taxes need to be combined with the removal of fossil fuel subsidies which are, ironically, still provided despite the climate emergency.[34] Although the UK government has recently announced that they no longer provide subsidies to fossil fuel companies, OECD data shows that this is not the case if we consider the overall financial support that the government provides to these companies.[35]

However, exclusive reliance on taxation might not be sufficient for funding investment, jobs and subsidies at the necessary scale - the current investment gaps in decarbonisation and the caring economy are unprecedented. As a result, it might be necessary for the UK government to increase its debt to fill in these gaps and achieve the transition to a more sustainable and equitable economy.[36] An increase in public debt should not be considered a problem, as has traditionally been argued in pro-austerity narratives. However, fiscal-monetary policy cooperation is necessary to facilitate debt-financed spending.

Currently, there is no technical constraint on the issuance of debt by the UK government: the government has an account at the Bank of England that can be used to borrow money directly from the Bank.[37] However, there is a rule according to which the UK government should reduce the debt in this account by raising taxes and issuing bonds. In line with Modern Money Theory (MMT) approaches,[38] the government could remove this rule. However, in that case, it would still be important for the government to issue bonds for financial and interest rate stability reasons: (i) in the existing financial system government bonds are considered a safe asset

31 See e.g. Obst, T., Onaran, Ö. and Nikolaidi, M. (2020). The effects of income distribution and fiscal policy on aggregate demand, investment and the budget balance: The case of Europe, *Cambridge Journal of Economics*, 44 (6), 1221-1243.

32 Himmelweit, S. (2020). Taxation and gender, Women's Budget Group, November; Onaran, Ö., Oyvat, C. and Fotopoulou, E. (2019). The effects of gender inequality, wages, wealth concentration and fiscal policy on macroeconomic performance, GPERC Working Paper No. 71.

33 The UK government increased the tax rate on oil and gas sector firms by 25%. This is expected to raise £5 billion in the first 12 months (see HM Treasury (2022). Energy Profits Levy Factsheet - 26 May 2022, June). At the same time, the UK government has provided the opportunity for 'super-deduction' style tax relief if the oil and gas sector companies reinvest their profits in the UK extraction of gas and oil. This clearly undermines the transition to a low-carbon economy (see Women's Budget Group (2022). WBG's response to the Chancellor's cost-of-living support package, May). On the contrary, the government could have imposed some green and gender criteria on how profits should be re-invested in order for companies to reduce their tax payments.

34 NEF (2019). How to pay for the Green New Deal, June.

35 See House of Lords Library (2022). Oil and gas industry: Outside interests, January.

36 Once the transition has been achieved, further issuance of public debt might not be necessary. This would be consistent with an economy in which economic growth is close to zero in such an economy an increase in public debt could lead to a continuous rise in the public debt-to-GDP ratio.

37 See Berkeley, A., Ryan-Collins, J., Tye, R., Voldsgaard, A. and Wilson, N. (2022). The self-financing state: An institutional analysis of government expenditure, revenue collection and debt issuance operations in the United Kingdom, UCL Institute for Innovation and Public Purpose, Working Paper Series No. 2022-08.

38 See e.g. Pantelopoulos, G. and Watts, M. (2021). Voluntary and involuntary constraints on the conduct of macroeconomic policy: An application to the UK, *Journal of Economic Issues*, 55 (1), 225-245, and the references therein.

that households, pension funds and banks invest in; (ii) banks often use government bonds as collateral to borrow from other banks and central banks; and (iii) the selling of government bonds might be necessary for the Bank of England to control interest rates if a corridor system is in place.[39] It would also be important for taxation to remain a key fiscal policy tool since it can achieve redistribution and restrict environmentally harmful activities.

An alternative approach would be for the government to introduce a new institutional framework for the Bank of England that can prevent an increase in the cost of borrowing when the government issues more bonds. This is important because the current framework does not ensure a low cost of borrowing for the government. For example, as a response to the recent inflationary pressures, the Bank of England has already increased its policy rate and might decide to reduce its holdings of government bonds in the coming months. This can certainly increase the interest rate on government bonds.

To address this, one option would be for the Bank of England to use bond yield targeting, as the Bank of Japan has done since 2016.[40] In practice, this would mean that the Bank of England would commit to intervening in the bond market whenever the government bond yields deviate from the target that has been set. An alternative – potentially more feasible option – would be for the Bank to put a cap on the bond yields and intervene only when the bond yields exceed this cap. This would be close to the recently adopted Transmission Mechanism Instrument (TPI) that the ECB introduced to avoid an excessive increase in the spreads of the government bonds of specific euro area countries that are more vulnerable to changes in the attitude of private investors.[41]

Irrespective of the exact option that would be selected, the overall outcome of such a type of fiscal-monetary policy coordination would be the creation of a stable environment for the cost of borrowing of the government. This would be consistent with the large environmental investment gaps and the need to invest in care, health and education.[42]

Instead of issuing any type of debt, the UK government could also issue more green government bonds. In 2021, it issued two green gilts and raised £16 billion in total for green projects.[43] Both green gilts were oversubscribed demonstrating investor interest. The Bank of England can also buy green government bonds to ensure that their demand will be sufficiently high.[44] Crucially, social bonds with an emphasis on the caring economy can also be used by the government to fund part of the necessary investment in social infrastructure.

39 For the way that the corridor system works, see Tymoigne, E. (2016). Government monetary and fiscal operations: Generalising the endogenous money approach, Cambridge Journal of Economics, 40 (5), 1317-1332.

40 See Michell, J. and Toporowski, J. (2019). Can the Bank of England do it? The scope and operations of the Bank of England's monetary policy, Progressive Economic Forum, November and Gabor, D. (2021). Revolution without revolutionaries: Interrogating the return of monetary financing, Finanzwende and Heinrich-Böll-Foundation.

41 See https://www.ecb.europa.eu/press/pr/date/2022/html/ecb.pr220721~973e6e7273.en.html

42 A side adverse effect of bond-yield targeting is that it can inflate the prices of government bonds. This can benefit wealthy households and households around retirement, increasing wealth inequality (Bunn, P., Pugh, A. and Yeates, C. (2018). The distributional impact of monetary policy easing in the UK between 2008 and 2014, Bank of England Staff Working Paper No. 720). However, if bond-yield targeting leads to higher government spending that is targeted at reducing inequality, the overall negative effect on inequality can be offset, at least partially. Moreover, achieving low yields for government bonds can reduce the income of bond holders and can be conducive to the so-called 'euthanasia of the rentier' (see Gabor, D. (2021). Revolution without revolutionaries: Interrogating the return of monetary financing, Finanzwende and Heinrich-Böll-Foundation).

43 See https://www.gov.uk/government/news/uks-first-green-gilt-raises-10-billion-for-green-projects and https://www.gov.uk/government/news/second-uk-green-gilt-raises-further-6-billion-for-green-projects

44 The government needs to make sure that the proceeds from the issuance of green government bonds are actually used to finance green government expenditures, i.e. that greenwashing risks are minimised. The UK government could achieve this by using existing standards (such as the EU Green Bond Standard) or other accountable processes for monitoring and reporting the use of proceeds.

A specific concern that is often raised about the issuance of public debt is that it can lead to inflation and exchange rate depreciation. Let us first focus on inflation. Most of the spending for the green economy will create additional capacity in physical terms (such as electricity grids, solar panels, low-carbon transport). Importantly, this will reduce the dependency of our economies on fossil fuels which has been one of the main drivers of the recent increase in inflation.[45] The spending in social infrastructure will also increase the capacity in social terms, for example by improving people's capabilities. Therefore, even if some of the measures lead to higher demand for goods and services that are necessary for the transition to a green and caring economy, the additional supply that will be created can reduce these inflationary pressures. Inflationary pressures can also be tamed through measures aimed at reducing environmentally destructive consumption.

Exchange rate depreciation might arise, especially in the current global inflationary environment whereby other central banks are raising interest rates. Such depreciation pressures might not be very strong for the UK compared to low-income and middle-income countries whose currencies are not at the top of the currency hierarchy.[46] However, they can be substantial even for strong currencies, like the sterling. The Bank of England can address such depreciation pressures by using its foreign currency reserves and implementing financial regulation that restricts capital flows. But such pressures might not be possible to be fully addressed as long as global private finance remains as powerful as it is nowadays. This more broadly implies that a smooth financing of a green and caring economy might not be feasible without redistributing power away from finance.

Monetary and financial policies

Public banking

Public banks can fund investments at a relatively low cost. First, the fact that their capital is provided by governments means that they do not need to rely on raising capital through private markets – the latter is typically costly since private investors require high returns on the funds that they provide. Second, the direct funding that governments provide to public banks and the fact that the operations of public banks are supported by government guarantees reduces the perceived risks of investing in the bonds issued by these banks and leads credit rating agencies to classify the public bank bonds as high-rated.[47] As a result, these bonds experience a high demand, keeping their interest rates at low levels. Public banks are, therefore, in a strong position to support the low-carbon transition by incorporating environmental criteria in their lending practices.[48] But they can also play a supportive role in providing funding for the caring economy.

Although the UK established a Green Investment Bank in 2012, it was sold off in 2017 restricting its potential for supporting strategic public targets. However, in 2021 the UK government established the UK Infrastructure Bank whose aim is to contribute to the decarbonisation of the

45 Storm, S. (2022). Inflation in the time of Corona and war, INET Working Paper No. 185.

46 Prates, D. (2020). Beyond Modern Money Theory: A Post-Keynesian approach to the currency hierarchy, monetary sovereignty, and policy space, *Review of Keynesian Economics*, 8 (4), 494-511.

47 See Griffith-Jones, S. (2019). The case for a National Investment Bank, Progressive Economic Forum.

48 Marois, T. (2017). How public banks can help finance a green and just energy transformation, Transnational Institute Public Alternatives issue brief, November.

UK economy and promote regional economic growth.[49] Even though this is a potentially useful development, there are currently several limitations. First, the UK Infrastructure Bank has a £22 billion financial capacity over the next five years, which is smaller than the financial capacity of green public banks in other countries.[50] According to the Office for Budget Responsibility (OBR), the UK Infrastructure Bank provides yearly only a third of the annual financing that was provided by the European Investment Bank (EIB) to the UK economy in the pre-Brexit period.[51] Second, the UK Infrastructure Bank has recently announced that it will not support predominantly social infrastructure projects such as schools and health facilities.[52]

If the financing capacity of the UK Infrastructure Bank improves and its mandate change to explicitly include investment in social infrastructure,[53] the bank has the potential to play a key role in supporting the financing of a green and caring economy. For example, the UK Infrastructure Bank could set specific targets for the proportion of lending provided for supporting green and caring activities. Furthermore, diversity and gender criteria could be incorporated into the loan provision process of the bank. For example, lower interest rates could be granted to companies that have addressed gender and racial pay gaps, have introduced diversity criteria in their recruitment process, have flexible working patterns and parental leave practices, and have achieved a sufficiently high representation of minority groups in management roles. At the same time, companies that fall short of achieving gender and diversity targets could be charged higher interest rates or could be excluded from getting financing from the UK Infrastructure Bank. The bank could also commit to disclosing the social co-benefits of its financing.[54]

The incorporation of diversity criteria into the design of public banking – and more broadly in monetary and financial policies – is not of course without challenges. It requires a systematic collection of data on company performance from a gender and diversity perspective and the development of methodologies by public authorities that ensure that this data is used in a way that avoids 'genderwashing' and 'racewashing'.[55] However, the more we postpone the incorporation of gender and diversity criteria into the design of monetary and financial policies, the more difficult it will become to address the challenge of evaluating the performance of companies from an equity and inclusion perspective.

It is important to note that public banking should go beyond the operations of the UK Infrastructure Bank. For example, the creation of a strong network of regional public banks with explicit green and gender targets could provide additional financing geared towards the needs of local communities.[56]

49 HM Treasury (2021). UK Infrastructure Bank policy design, March.

50 The Guardian (2021). New infrastructure bank won't help UK reach net zero, says Labour, March; Financial Times (2021). UK's first infrastructure bank to boost climate goal investment.

51 OBR (2021). Economic and fiscal outlook, March.

52 See HM Treasury (2022). Chancellor's letter to the UK Infrastructure Bank.

53 According to its current mandate, the Infrastructure Bank needs to support the government in boosting infrastructure investment, productivity and growth to reach net zero by 2050 (see HM Treasury (2021). UK Infrastructure Bank, policy design, March.).

54 Szwarc, K., Robins, N. and Muller, S. (2021). The new UK Infrastructure Bank can drive the just transition: Here's how, Commentary, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, April.

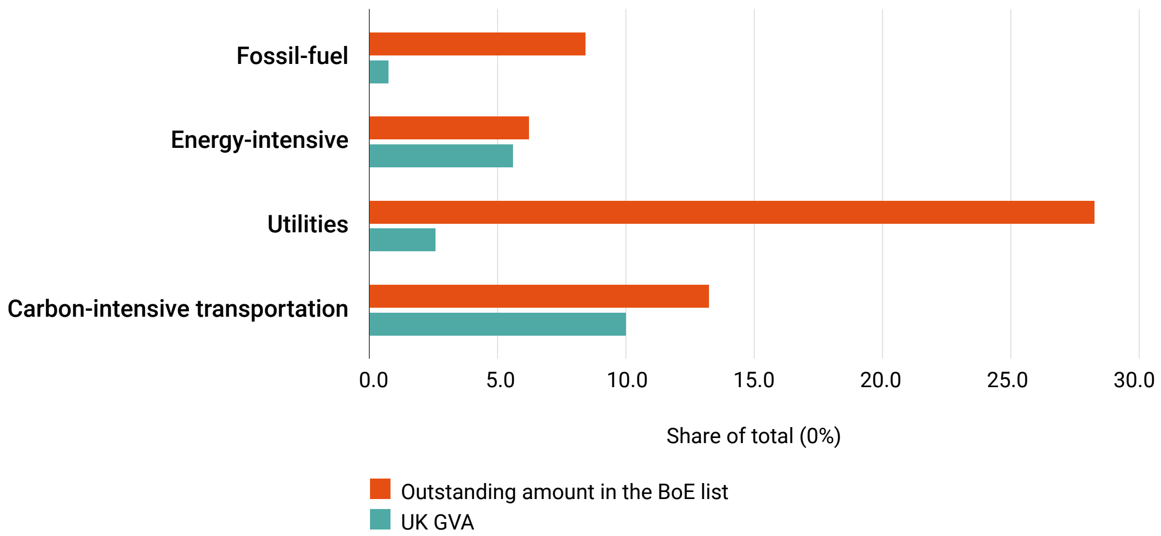
55 Walters, R. (2021). Varieties of gender wash: Towards a framework for critiquing corporate social responsibility in feminist IPE, *Review of International Political Economy*, 1-24.

56 Nikolaidi, M. (2019). Greening the UK financial system, CommonWealth.

Quantitative Easing (QE)

In 2016, the Bank of England launched the Corporate Bond Purchase Scheme (CBPS) through which it has bought a significant amount of bonds issued by UK companies. As Figure 1 shows, this scheme has disproportionately supported carbon-intensive sectors: the representation of these sectors in the CBPS is higher than the contribution of these sectors to the UK gross value added (GVA).[57] The main reason behind this carbon bias is the so-called 'market neutrality' principle that drives the purchases of the Bank of England. This principle suggests that the Bank of England should not 'distort' financial markets. Since carbon-intensive companies tend to be large, have a high presentation in the bond markets and receive favourable credit rating assessments, the use of the market neutrality principle results in an over-representation of carbon-intensive activities in the CBPS. Instead of supporting the transition to a low-carbon economy, the Bank of England has therefore undermined the decarbonisation of the UK economy through its corporate QE programme.

Figure 1: Contribution of carbon-intensive sectors in the CBPS Bank of England (BoE) eligible list and the UK Gross Value Added (GVA)



Source: Dafermos, Y., Gabor, D., Nikolaidi, M. and van Lerven, F. (2020). Decarbonising the Bank of England's pandemic QE: 'Perfectly sensible', New Economics Foundation, August.

For the carbon bias to be addressed, the Bank needs to abandon market neutrality and target, instead, climate neutrality. This would be in line with the update of the Bank's mandate that took place in March 2021.[58] To be consistent with climate neutrality the Bank would need to (i) exclude from its purchases bonds issued by companies that engage in activities that are inconsistent with the Paris Agreement targets; (ii) reduce the purchases linked to other carbon-intensive activities when companies have no clear plans for decarbonisation and (iii) increase the purchases of bonds that support the financing of environmentally friendly

57 See also Matikainen, S., Campiglio, E. and Zenghelis, D. (2017). The climate impact of quantitative easing, Policy Paper, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, No. 36.

58 See https://www.bankofengland.co.uk/-/media/boe/files/letter/2021/march/2021-mpc-remit-letter.pdf

activities.[59] Such a green transformation of the Bank's corporate QE programme would reduce the cost of borrowing for green activities and would increase it for activities that are conducive to the climate crisis. Overall, the incorporation of climate criteria into the Bank's corporate QE programme might support green activities and penalise carbon-intensive activities. This would have beneficial effects on the environment (as long as greenwashing risks are minimised), and by implication, on long-run financial stability – it would reduce the so-called physical risks that the financial system can face due to defaults that might be triggered by climate-related events, such as flooding and hurricanes.[60] Although the Bank has recently incorporated climate criteria into its QE programme,[61] the greening of its asset purchases is not sufficiently ambitious due to its adherence to the market neutrality principle.[62]

However, just targeting climate neutrality in the Bank's QE programme would not go far enough in terms of supporting the transition to a green and caring economy. QE can be designed such that it supports diversity targets. In identifying the corporate bonds that the Bank of England can purchase as part of its QE programme, diversity criteria, such as the ones suggested above for green public banking, could be considered along with environmental ones. For example, the Bank of England could purchase bonds issued by companies that have achieved gender and diversity targets. At the same time, companies that fall short of achieving such targets could see a reduction in the bonds that the Bank purchases or could be excluded from the QE programme. The UK government could update the Bank of England's mandate to include gender equality targets (or could explicitly include gender equality in government's economic strategy[63]) in order to prompt the Bank to consider gender issues in the design of the QE programme.

On a broader note, it should be highlighted that QE programmes have adverse distributional effects. They can inflate the price of financial assets, exacerbating wealth inequality. This is so because poorer households typically hold only a small amount of bonds and stocks compared to richer households.[64] The QE programmes can also have gendered implications since the bonds that are bought by central banks tend to be held predominantly by rich men.[65] Moreover, companies whose bonds are bought by the Bank might use the proceeds from the issuance of these bonds to undertake non-productive investments. One way to (partially) address this would be for the Bank of England to put some conditionalities that would, for example, lead it to stop buying bonds of companies that do not invest their profits sufficiently in the real economy.

However, QE programmes have become an integral part of the way that the modern monetary and financial system works and can be very powerful since they rely on the ability of central banks to create money and support the economy directly. Therefore, when central banks

59 For a detailed proposal on how this can be done, see Dafermos, Y., Gabor, D., Nikolaidi, M. and van Lerven, F. (2022). An environmental mandate, now what? Alternatives for greening the Bank of England's corporate bond purchases, SOAS University of London; University of Greenwich; University of the West of England, January 2022.

60 Dafermos, Y., Nikolaidi, M. and Galanis, G. (2018). Climate change, financial stability and monetary policy, *Ecological Economics*, 152, 219-234.

61 See https://www.bankofengland.co.uk/news/2021/november/boe-publishes-its-approach-to-greening-the-corporate-bond-purchase-scheme

62 See Dafermos, Y., Gabor, D., Nikolaidi, M. and van Lerven, F. (2022). An environmental mandate, now what? Alternatives for greening the Bank of England's corporate bond purchases, SOAS University of London; University of Greenwich; University of the West of England, January 2022.

63 The Bank of England has to support government's economic policy, as part of its mandate.

64 See Advani, A., Bangham, G. and Leslie, J. (2021). The UK's wealth distribution and characteristics of high-wealth households, *Fiscal Studies*, 42 (3-4), 397-430. One partial offsetting effect of the impact of QE on inequality is that it reduces interest rates and therefore the interest income received by asset holders. But still, the wealth inequality effects can very substantial.

65 See Young, B. (2018). The impact of unconventional monetary policy on gendered wealth inequality, *Papeles de Europa*, 31 (2), 175-186.

use them, it is important to make sure that they are designed to support a green and caring economy and their adverse distributional consequences are addressed by other policies, such as progressive income and wealth taxation.

Term Funding Scheme

In 2016, the Bank of England introduced the Term Funding Scheme (TFS).[66] One of the aims of the TFS was to incentivise banks to provide more lending to households and firms. The Bank connected the net lending of banks and building societies to firms and households with the interest rates that they were charged for getting access to long-term liquidity (4 years): the higher the net lending the lower the interest rate (and vice versa).[67]

The TFS ended in 2018. However, due to the Covid-19 crisis in 2020, the Bank of England reintroduced the TFS with additional incentives for small and medium enterprises (SMEs). The TFS for SMEs ended in 2021.[68]

The TFS or TFS for SMEs can be re-introduced to support the green and caring economy.[69] Banks and building societies that increase corporate and housing lending that is inconsistent with the Paris Agreement targets could be penalised by paying higher interest rates when they receive liquidity from the Bank of England. Simultaneously, the Bank of England could charge a lower interest rate to banks that increase lending that support green activities, energy-efficient housing and care.

Financial regulation

Greening financial regulation is increasingly seen as a potential policy for decarbonising the financial system. Capital requirements are a key aspect of financial regulation. Bank capital reflects the amount of finance that banks provide by relying on their own financial resources, such as retained profits or money raised through the stock market. Banks are required to hold a specific amount of capital to cover financial losses in the case their borrowers cannot repay their debt. Holding more capital is, however, costly for banks. This means that an increase in capital requirements for specific loans can discourage the provision of such loans, while a decline in capital requirements can lead to an increase in bank lending.

The amount of capital that banks should hold for each type of loan depends on the risk weight of this loan: the higher the risk weight the higher the required capital. Green differentiated capital requirements could be introduced to account for the environmental impact of loans. Green differentiated capital requirements can take two forms: the green supporting factor and the dirty penalising factor.[70] According to the green supporting factor, the risk weight of green loans should decline to reflect the positive contribution of these loans to the environment, but also the fact that such loans can reduce the long-run systemic risks that economies and financial system face due to the financial implications of climate-related events. On the contrary,

66 Bank of England. (2018). The Term Funding Scheme: Design, operation and impact, BOE Quarterly Bulletin 2018 Q4.

67 There is some evidence suggesting that the interest rates were passed on to loans (e.g. mortgages); see Bank of England. (2018). The Term Funding Scheme: Design, operation and impact, BOE Quarterly Bulletin 2018 Q4.

68 https://www.bankofengland.co.uk/markets/market-notices/2020/term-funding-scheme-market-notice-mar-2020

69 van Lerven et al (2021). Greening finance to build back better, New Economics Foundation.

70 See Dafermos, Y. and Nikolaidi, M. (2021). How can green differentiated capital requirements affect climate risks? A dynamic macrofinancial analysis, *Journal of Financial Stability*, 54, 100871; Berenguer, M., Cardona, M. and Evain, J. (2020). Integrating climate-related risks into banks' capital requirements, Institute for Climate Economics.

under a dirty penalising factor, the weight of loans that support environmentally destructive activities should increase. Although such adjustments in financial regulation would require careful calibration to reduce adverse financial stability side effects, in the short run, it needs to be emphasised that such interventions can be important for long-run financial stability.[71] This is because they direct finance towards activities that support decarbonisation and can, as a result, reduce the exposure of the financial system to the physical risks that stem from climate-related events.

But capital requirements could also be adjusted on the basis of the gender and diversity performance of companies and on whether banks provide financing for the caring economy. Banks could be required to hold more capital against loans given to companies that have not achieved specific gender and diversity targets. Capital requirements could, at the same time, decline for loans provided to firms that support activities that are important for a caring economy or have achieved inclusion targets.[72]

Moving beyond capital requirements, the Bank of England and the UK financial supervision authorities could also guide credit towards specific sectors that should be supported for the transition to a green and caring economy. At the same time, they could impose a ceiling on the amount of lending that banks provide to certain carbon-intensive activities.[73]

Conclusion

The vision for a green and caring economy cannot be achieved without a fundamental transformation of the UK macroeconomic and financial policies. This paper has outlined how these policies can be re-imaged to support a broader set of strategies that aim at simultaneously addressing the environmental and care crises.

We have suggested a policy mix that puts large-scale public investments and the creation of public sector jobs at its core. Low-carbon transport, green social housing, caring activities and the creation of parks and green spaces should be the focus of a public investment strategy that will target both the decarbonisation of our physical infrastructure and the expansion of social infrastructure. Subsidies, taxation and monetary and financial policies should play a supporting role. Public banking should be expanded and contribute to the financing of green and caring activities, while the decarbonisation of the UK private financial system should include both the operations of the Bank of England and financial regulation, relying on a 'carrot and stick' approach that encourages the financing of green activities and discourages the financing of dirty activities. It is also important to achieve a diversity-based transformation of the UK financial system.

The UK government needs to abandon the current market-based approach that relies on private incentives and small-scale green public investments and to adopt, instead, an ambitious policy agenda that serves the urgent needs for achieving rapid decarbonisation and gender equality. The more the government delays doing so the more the environmental and care crises are exaggerated.

71 For example, the green supporting factor might reduce bank capital and might make the banks more financially fragile in the short run.

72 For the role of financial regulation in promoting gender equality, see Elson, D. (2020). Briefing paper for Commission on a Gender Equal Economy, Women's Budget Group.

73 For the importance of credit guidance in addressing the climate crisis see van Levern, F. (2018). The Bank of England and a 1.5°C green transition: Reshaping finance, New Economics Foundation and Ryan-Collins, J. (2019). Beyond voluntary disclosure: Why a 'market-shaping' approach to financial regulation is needed to meet the challenge of climate change, SUERF Policy Note No. 61.

The Feminist Green New Deal is bringing a gendered and intersectional approach/perspective to the Green economy/Green Recovery - ensuring that the voices of women, people of colour and other marginalised groups are heard during environmental and political debates.

Through a programme of nationwide grassroots workshops and policy roundtables a Feminist Green New Deal Manifesto will be created and launched in 2022.

This Project is a collaboration between Wen (Women's Environmental Network) and the Women's Budget Group (WBG).

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