Green Macroeconomics
Time for a New Paradigm

Making macroeconomics fit for a climate-neutral future

The European Union decided to be climate-neutral by 2050 and, hence, become the first climate-neutral continent in the world. Becoming climate-neutral can be considered one of the biggest challenges in our industrial societies. This transition will shape our future tremendously. The invasion of Ukraine further reinforced the necessity to speed up this transition out of geopolitical and moral considerations. Macroeconomic thinking and policies set the incentives for many other policy areas, consumers, firms and other research disciplines. It provides a framework for decisions on which investments will be carried out, which form of energy will be used in the future and how the transition will be financed. We claim it is necessary to make macroeconomics fit for a climate-neutral future. This includes considering climate-related issues in all macroeconomic decisions and discussing the appropriate policy tools to make this transition happen in an efficient and socially fair manner.

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10 May 2022 | Decarbonizing the European Union – who will pay the bill?

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The European Union has decided to become climate-neutral by 2050, which would make it the first climate-neutral continent in the world. However, the member states have different abilities to finance the public investments needed to fund this green transition. The pandemic has even increased these differences. The big question looming over the Union's plans is: who will pay for it, and how?

Ann Pettifor: Public investment increases employment, tax revenues and pays the bill

As Ann Pettifor's message was clear: society can no longer afford investments that do not create employment income. That is because in the end, more jobs create more tax revenue, which repays the public investment and creates prosperity. This means that tax revenues are not initially needed to kickstart financing the green transition, but in fact they can grow from investing in the green transition now. Fiscal rules that are too strict hamper the economy, increase unemployment and contribute to the rise of right-wing parties in Europe. Instead, relaxing fiscal rules now can enable governments to borrow for crucial investments to fight the(climate) crisis, and to create a society that benefits everyone, including future generations.

Zsolt Darvas: How to increase green public investment when fiscal consolidation is needed?

Zsolt Darvas emphasized the dilemma that, on the one hand, the EU's rules call for fiscal consolidation (reducing deficits in government spending) even in times of crisis. On the other hand, more public spending is urgently needed to fight the climate crisis. He presented three options to solve this conflict: First, relaxing the EU fiscal rules (e.g. relax 3 % rule of primal deficit and 60 % rule of debt relative to GDP). However, he added that this is hard to realize because a consensus of every member state is needed to change the European Treaty, which is politically not feasible. The second option is installing a centralized EU-fund for green investment via EU borrowing. And third, to apply a 'Green Golden Rule' exempting green public investment from the EU fiscal rules. He clearly favors the third option.

Philippa Sigl-Glöckner: Changing the second layer of legislation

Philippa Sigl-Glöckner agreed that significant investments are needed, however, she also acknowledged that under current EU legislation EU countries have not much room to maneuver because of already high debt levels. Thus, she proposed three updates to EU fiscal policy rules, which do not require a treaty change but a change of the second layer of legislation and underlying calculation methods. First, excluding interest payments from the 3 % primary deficit rule. Second, update the underlying calculations of what EU country economies can afford and hence increase their ability to take on debt. For example, include the fact that women nowadays are much more involved in the labor market than 50 years ago. Third, public spending conditions are very different for Italy than for Germany. By aligning fiscal and monetary policy between the EU and national level it is possible to reduce the difference in interest rate payments between the member states.

Three insights from the discussion with the audience

- Green investment carries a risk of sector-specific inflation. Nonetheless, fiscal investment is needed.
- Fiscal policy is political! When fiscal rules are too tight, countries cannot provide prosperity in terms of jobs, a pristine environment, and affordable housing. A lack of those might fuel right-wing populism.
- Legislative changes are a political decision. Laws can be broken and changed. Corona bonds were possible during the pandemic.

25 May 2022 | Money Talks: Finance Goes Green – Will it Succeed?

Link: https://www.decarb.world/events/green-finance accessed 15/04/2024

Fighting global warming and strategically restructuring our economic system requires a massive investment of financial capital. There is a huge "green investment gap", and even in the case that enough financial capital is provided, in which form should this be done? In this webinar, we have invited leading experts to discuss how finance can best play its role in driving change and avoiding greenwashing. We will explore risk and asset pricing, time horizons and information, and what barriers to change exist.

Maya Hennerkes: Public financial institutions can pave the way

Maya Hennerkes noted the immediate effects of climate risk on finance and policy, pointing out the financial sector's growing recognition of climate change's impact on portfolios through enhanced risk ratings and environmental disclosures. Yet, assessing the quality of green investments remains a challenge. To address these barriers and enhance transparency, new initiatives and regulations such as the Network for Greening the Financial System and the EU taxonomy are being set up. She also stressed the importance of private investors divesting from non-green firms and investing in sustainable projects, highlighting that regulatory reliance isn't enough.

Dr. Tatjana Puhan: Towards real implementations in private asset management

Tatjana Puhan underlined the urgent need for genuine environmental impact assessments in green finance, urging academia and investors to outpace regulations to avert greenwashing. She discussed the critical role of a competitive market economy, effective legal systems, and strong investor groups in enabling activist investors to promote green corporate governance. She emphasized that the threat of disinvestment could motivate firms to invest in green initiatives and discourage investments in unsustainable enterprises. Nonetheless, she acknowledged that putting a precise value on climate risks is a challenge for financial experts, complicated by uncertainties in climate modeling, the relevance of climate risk to short-term investors, and the practical constraints in implementing academic theories in hedging portfolios.

Prof. Dr. Alex Stomper: Addressing recent problems in green financial innovation

Alex Stomper addressed challenges in green financial innovation, advocating for corporate governance as a tool for investor influence in climate issues, particularly where policies lag. He called for more support for climate advocacy groups to balance the influence of non-green companies and urged expanding discussions to include bridging the investment gap in non-green assets. Stomper also highlighted the importance of not underestimating innovation's role, including carbon removal technologies and repurposing non-green assets.

Tariq Fancy: Governments should push the private sector

In his video message, Mr. Fancy drew parallels to the role of governments in the pandemic. Effective measures should internalize climate externalities, and the pandemic has shown that governments can play a leading role in shaping the market.

Three insights from the discussion with the audience

- We need tighter policy incentives that incentivize negative emission flows to reduce the stock of past emissions that have already accumulated in the atmosphere.
- More investment is needed from public financial institutions to take the risk off new climate finance projects to, which would attract additional private investments.
- There is still not enough money being invested into 'green' firms because of several varied factors including a lack of demand, inefficient regulation, and investment risks.

1 February 2023 | Frankfurt meets Paris: how central bankers can help save the climate

Link: https://www.decarb.world/events/green-monetary accessed 15/04/2024

What are the tools that the ECB aims to use to tackle climate change? With leading experts in the field, we will discuss these questions and explore how the ECB could support green investments despite high inflation.

Prof. Emanuele Campiglio: Central banks' role in addressing climate change

Central banks can assist societies in fulfilling two societal functions to address climate change. The first function is to improve understanding of the socioeconomic implications of a low-carbon transition through quantitative modelling and data collection on climate-related expectations. Central banks should continue to leverage their research capabilities for climate-related studies. The second function is to manage climate-related expectations to avoid disruptions. To achieve this, a credible and time-consistent policy maker should set clear schedules for steadily increasing carbon prices. Central banks can influence expectations, but a dialogue is needed on a suitable framework to harmonize climate efforts with institutional credibility.

Prof. Michael Bauer: Balancing price stability and environmental objectives

The European Central Bank (ECB) is legally obligated to support the EU's environmental objectives based on its secondary mandate. The ECB's significant footprint in financial markets provides European central bankers with substantial leeway to actively support the transition to a low-carbon economy. Three criteria can be used to evaluate monetary policy tools to support this transition: whether the policy aligns with the primary mandate of maintaining price stability, whether it risks endangering the central bank's independence, and whether it has any adverse side effects such as distributional effects, competition effects, or effects on financial stability. The ECB must carefully consider the costs and benefits of monetary policy tools to support the low-carbon economy.

Thekla von Bülow: A comprehensive look on green investment needs

To accomplish the green transformation, European businesses must channel huge investments towards green technologies and the transformation of their operations. A sizeable portion of these investments will need to be made by small and medium-sized enterprises (SMEs) and midcaps who typically fund their projects with bank loans. The recent substantial increase in interest rates has caused an overall slowdown in green investments in Europe. In this environment, the public sector should apply policy instruments that secure revenue flows and hence instill investor confidence in green projects, such as subsidies or insurance schemes. Coordinated efforts between the public sector and the ECB are crucial to support the market-wide transition, with particular attention to SMEs and midcaps' financing challenges.

Three insights from the discussion with the audience

- Inflation's impact on the green transition varies; "fossilflation" might incentivize low-carbon technology adoption, whereas "greenflation" could hinder progress. Price stability, a primary ECB goal, indirectly facilitates the transition by fostering a conducive investment environment necessary for decarbonising.
- The ECB is exploring green investment support, such as green asset purchases, within its current constraints. Expanding its role in greening the sovereign bond portfolio is complex, limited by the statutes of supranational bodies like the European Investment Bank. Institutional reforms could enhance the ECB's capacity to promote green investments.
- To address climate risks without overburdening traditional central banks, creating a new entity, akin to the European Systemic Risk Board, could be beneficial. A "Climate Systemic Risk Board" could be established and tasked to set stable carbon price.

18 January 2024 | Enhancing international climate finance: moving beyond 100bn/year

Link: https://www.decarb.world/events/international-climate-finance accessed 15/04/2024

How should the post-2025 agenda for international climate finance look like? What factors impede the broader adoption of blended finance? How to overcome the barriers that hinder international climate investments in the Global South? How to increase the scale, improve effectiveness of, and simplify access to, climate finance? These questions and more will be explored with leading experts in the field.

Tara Shirvani: Bridging climate finance gaps in emerging markets

Tara Shirvani underscored the disproportionate flow of climate finance towards developed nations, sidelining emerging markets (EM) despite their acute vulnerability to climate risks. She argued for a paradigm shift in how private investors approach climate finance in EMs, emphasizing the need for more innovative financing tools like green bonds and sustainability-linked loans. Shirvani highlighted the efficacy of risk mitigation instruments and blended finance models in attracting private investments and called for a concerted effort among multilateral development banks (MDBs), public institutions, and private investors to collaborate more effectively. She stressed the importance of adapting investment mindsets to the unique challenges of climate finance, particularly in embracing lower expected returns and higher risks for the greater goal of sustainable development.

Andrew Apampa: Overcoming blended finance stagnation

Andrew Apampa provided insights into the stagnant growth of private climate blended finance, attributing it to a lack of strategic coordination, inadequate investor education, and the failure to fully integrate climate risks into financial models. He advocated for the integration of climate and private sector mobilization Key Performance Indicators (KPIs) into the operational frameworks of MDBs and Development Finance Institutions (DFIs). Apampa also proposed the development of common taxonomies to clarify key themes in climate finance, such as adaptation finance, and called for a boost in the supply of catalytic concessional financing to mobilize private investments.

Alexander Vasa: Multilateral development banks' role in climate finance

Alexander Vasa explained the critical role of MDBs in bolstering climate finance, underlining their commitment to driving significant advancements in the field. He discussed the IDB's efforts to enhance the green lending capacity of Public Development Banks (PDBs), develop financial solutions for the public sector, and scale sustainable finance through strategic partnerships. Vasa particularly noted the success of the Green Bond Transparency Platform, which has facilitated the issuance of $42 billion in green bonds across Latin America, thereby increasing transparency and encouraging investor participation.

Three insights from the discussion with the audience

- Incorporating adaptation components within regional taxonomies can aid in understanding adaptation and mobilizing adaptation finance effectively.
- Platforms that align project funding requests from the Global South with the climate financing interests of investors may solve some of the issues that energy transition partnerships face.
- There is an urgent need to boost the supply of catalytic concessional financing to close the climate finance gap and leverage private investments, with a special emphasis on the advantages of local currency financing solutions.

22 February 2024 | Climate resilient development: Can macroeconomics face a climate in crisis?

Link: https://www.decarb.world/events/macro-climate-resilience accessed 15/04/2024

What is the added value of climate sensitive macroeconomic modelling? Where is climate-sensitive macroeconomics at, and where is more work needed? How could macroeconomic modeling tools be made more readily available to developing and emerging economies where impacts are most pronounced but analytical resources are often limited? These questions and more will be explored with leading experts in the field.

Sebastian Homm, the event's moderator, set the stage by discussing the necessity of modeling long-term pathways that are both climate resilient and mitigate emissions simultaneously, rather than treating them as separate entities.

Ulrich Volz highlighted the macro-critical nature of climate change, emphasizing the need for macroeconomic analysis to incorporate climate variables. He pointed out the already observable impacts of climate change on significant macroeconomic variables such as output, employment, and inflation, noting the rising costs of financing due to climate-induced risks. Volz criticized the IMF's DIGNAD model for its exclusion of the financial sector, advocating for a model that captures the significant feedback loops between the financial sector and the real economy. He stressed the importance of including climate change in macro models despite existing uncertainties, particularly in adaptation measures.

Iryna Payosova addressed the growing demand for support in climate adaptation measures worldwide. She outlined the challenges in climate impact modeling, including the integration of various data sources, the selection of climate scenarios, and the resolution of global circulation model forecasts. Payosova highlighted the complexities of modeling spillover and interaction effects between different sectors such as water, energy, food, healthcare, forests, and coastal zones. The integration of nuanced topographical data that is often not captured in conventional GCM forecasts poses additional challenges, requiring modelers to synthesize disparate data and models to overcome these limitations. Payosova shared insights from WRI's application of the NCA/NCE approach in Ethiopia, which showcases the comparative benefits of a net-zero emissions scenario against a business-as-usual scenario, highlighting both the economic gains and the creation of green jobs while acknowledging distributional impacts.

Florent McIsaac discussed the ambitious goal of covering the entire portfolio of World Bank client countries with climate-resilient strategies within five years. He elaborated on the challenges of selecting appropriate climate scenarios and integrating their results into macro models. McIsaac addressed the intricacies of aiding countries in transitioning away from fossil fuels and the necessity of diverting resources towards promising new technologies. He also highlighted the potential co-benefits of climate resilience investments in developing countries, suggesting that such investments can crowd in additional investments and enhance productivity.

Christop Schult shared experiences in attempting to create a model for Vietnam to quantify the impacts of climate change. He underscored the difficulties in quantification and the necessity of interdisciplinary collaboration in model creation. Schult emphasized that a country's level of economic development significantly influences its exposure to climate change, with more developed economies inherently possessing greater resilience.