

NGFS - Green Finance Research - Key references

The NGFS has been collecting academic references on climate finance from its members. This bibliography is made publicly available for information purposes. It does not pretend to be fully comprehensive and there will be other studies not cited that add to the evidence on climate finance research. It gathers research material across all possible formats, from peer-reviewed academic papers to technical reports. It will be regularly updated and complemented, and any reference may be modified without notice. The publication of these references is not to be considered an endorsement and the opinions expressed may not reflect the view of the NGFS or that of any of its members.

References

- Acemoglu, D., Aghion, P., Bursztyn, L., and Hémous, D. (2012). The environment and directed technical change. *American economic review*, 102(1):131–66.
- Acevedo, S., Mrkaic, M., Novta, N., Pugacheva, E., and Topalova, P. (2020). The effects of weather shocks on economic activity: What are the channels of impact? *Journal of Macroeconomics*, 65:103207.
- Adão, B., Narajabad, B., and Temzelides, T. (2021). Scrapping, Renewable Technology Adoption, and Growth. Working Paper w202111, Banco de Portugal.
- Aghion, P., Dechezleprêtre, A., Hémous, D., Martin, R., and Van Reenen, J. (2016). Carbon taxes, path dependency, and directed technical change: Evidence from the auto industry. *Journal of Political Economy*, 124(1):1–51.
- Aguilar, A. and Vicarelli, M. (2011). El nino and Mexican children: Medium-term effects of early-life weather shocks on cognitive and health outcomes. Cambridge, United States: Harvard University, Department of Economics.
- Alcaraz, C. and Villalvazo, S. (2017). The effect of natural gas shortages on the mexican economy. *Energy Economics*, 66:147–153.
- Alessi, L., Battiston, S., Melo, A., and Roncoroni, A. (2019). The EU sustainability taxonomy: A financial impact assessment. Technical report, Joint Research Centre, European Commission.
- Alestra, C., Cette, G., Chouard, V., and Lecat, R. (2020). Long-term growth impact of climate change and policies: the Advanced Climate Change Long-term (ACCL) scenario building model. Working papers 759, Banque de France.
- Allen, T., Dees, S., Boissinot, J., Graciano, C. M. C., Chouard, V., Clerc, L., de Gaye, A., Devulder, A., Diot, S., Lisack, N., and Pegoraro, F. (2020). Climate-Related Scenarios for Financial Stability Assessment: An Application to France. Working papers 774, Banque de France.
- Alonso, A. and Marqués, J. M. (2019). Financial innovation for a sustainable economy. Occasional Papers 1916, Banco de España.

- Altunbas, Y., Gambacorta, L., Reghezza, A., and Velliscig, G. (2021). Does gender diversity in the workplace mitigate climate change? BIS Working Papers 977, Bank for International Settlements.
- André, L., Grept, A., Laut, N., Plantier, G., Sapey-Triomphe, Z., and Weber, P.-F. (2022). Climate Risk Measurement of Assets Eligible as Collateral for Refinancing Operations - Focus on Asset Backed Securities (ABS). Working papers 858, Banque de France.
- Ang, G. and Copelando, H. (2018). Integrating climate change-related factors in institutional investment. OECD, Round Table on Sustainable Development.
- Annicchiarico, B. and Di Dio, F. (2017). Ghg emissions control and monetary policy. *Environmental and Resource Economics*, 67(4):823–851.
- Anthoff, D. and Tol, R. S. (2010). On international equity weights and national decision making on climate change. *Journal of Environmental Economics and Management*, 60(1):14–20.
- Aramonte, S. and Zabai, A. (2021). Sustainable finance: Trends, valuations and exposures. BIS Quaterly Review September, Bank for International Settlements.
- Auffhammer, M. (2018). Quantifying economic damages from climate change. *Journal of Economic Perspectives*, 32(4):33–52.
- Barbera, A. J. and McConnell, V. D. (1990). The impact of environmental regulations on industry productivity: Direct and indirect effects. *Journal of environmental economics and management*, 18(1):50–65.
- Batten, S. (2018). Climate change and the macro-economy: A critical review. Working Paper 706, Bank of England.
- Batten, S., Sowerbutts, R., and Tanaka, M. (2016). Let’s talk about the weather: The impact of climate change on central banks. Working Paper 603, Bank of England.
- Battiston, S., Mandel, A., Monasterolo, I., Schütze, F., and Visentin, G. (2017). A climate stress-test of the financial system. *Nature Climate Change*, 7(4):283–288.
- Baudino, P. and Svoronos, J.-P. (2021). Stress-testing banks for climate change: A comparison of practices. FSI Insights 34, Bank for International Settlements.
- BCBS (2021a). Climate-related financial risksâmeasurement methodologies. Bcbs papers, Bank for International Settlements.
- BCBS (2021b). Climate-related risk drivers and their transmission channels. Bcbs papers, Bank for International Settlements.
- Benson, C. and Clay, E. J. (2004). *Understanding the economic and financial impacts of natural disasters*. Number 4 in Disaster Risk Management Series. World Bank Publications.
- Berman, E. and Bui, L. T. (2001). Environmental regulation and productivity: Evidence from oil refineries. *Review of Economics and Statistics*, 83(3):498–510.
- Bernardini, E., Di Giampaolo, J., Faiella, I., and Poli, R. (2021a). The impact of carbon risk on stock returns: Evidence from the european electric utilities. *Journal of Sustainable Finance & Investment*, 11(1):1–26.

- Bernardini, E., Faiella, I., Mistretta, A., Natoli, F., and Lavecchia, L. (2021b). Banche centrali, rischi climatici e finanza sostenibile [central banks, climate risks and sustainable finance]. Occasional Paper 608, Bank of Italy.
- BIS (2021). Project genesis: Prototype digital platforms for green bond tokenisation. <https://www.bis.org/publ/othp43.htm>.
- Boffo, R., Marshall, C., and Patalano, R. (2020). Esg investing: Environmental pillar scoring and reporting. Technical report, OECD Publishing, Paris.
- Boffo, R. and Patalano, R. (2020). ESG investing: Practices, progress and challenges. Technical report, OECD Publishing, Paris.
- Boitreaud, S., Emery, T., Gonzales, L., Gurhy, B., Larrain, F., and Paladines, C. (2021). Paving the path: Lessons from chile’s experiences as a sovereign issuer for sustainable finance action. Technical report, World Bank Group, Washington, DC.
- Boitreaud, S., Gratcheva, E. M., Gurhy, B., Paladines, C., and Skarnulis, A. (2020). Riding the wave: Navigating the esg landscape for sovereign debt managers. Technical report, World Bank Group, Washington, DC.
- Bolton, P., Despres, M., Da Silva, L. A. P., Samama, F., Svartzman, R., et al. (2020). *The green swan*. BIS Books.
- Bonen, A., Loungani, M. P., Semmler, W., and Koch, S. (2016). Investing to mitigate and adapt to climate change: A framework model. Working Paper 164, International Monetary Fund.
- Bovari, E., Giraud, G., and McIsaac, F. (2018). Coping with collapse: A stock-flow consistent monetary macrodynamics of global warming. *Ecological Economics*, 147:383–398.
- Bowen, A., Cochrane, S., and Fankhauser, S. (2012). Climate change, adaptation and economic growth. *Climatic change*, 113(2):95–106.
- Bowen, A. and Dietz, S. (2016). The effects of climate change on financial stability, with particular reference to sweden. Technical report, Grantham Research Institute on Climate Change and the Environment.
- Bozzola, M., Massetti, E., Mendelsohn, R., and Capitanio, F. (2018). A ricardian analysis of the impact of climate change on italian agriculture. *European Review of Agricultural Economics*, 45(1):57–79.
- Brandstedt, E. (2018). Why are we waiting? the logic, urgency, and promise of tackling climate change. *Ethics, Policy & Environment*, 21(3):405–408.
- Bretschger, L. and Vinogradova, A. (2019). Best policy response to environmental shocks: Applying a stochastic framework. *Journal of Environmental Economics and Management*, 97:23–41.
- Brey, B. and Hertweck, M. S. (2019). Agricultural productivity shocks and poverty in india: The short-and long-term effects of monsoon rainfall. Working Paper 19, Deutsche Bundesbank.
- Bukowski, M., Kowal, P., et al. (2010). Large scale, multi-sector dsge model as a climate policy assessment tool-macroeconomic mitigation options (memo) model for poland. Working Paper 03, Instytut Badan Strukturalnych.

- Burke, M., Hsiang, S. M., and Miguel, E. (2015). Global non-linear effect of temperature on economic production. *Nature*, 527(7577):235–239.
- Cahen-Fourot, L., Campiglio, E., Godin, A., Kemp-Benedict, E., and Trsek, S. (2021). Capital stranding cascades: The impact of decarbonisation on productive asset utilisation. *Energy Economics*, 103:105581.
- Caldecott, B. (2017). Introduction to special issue: Stranded assets and the environment. *Journal of Sustainable Finance & Investment*, 7(1):1–13.
- Calel, R. and Dechezleprêtre, A. (2016). Environmental policy and directed technological change: Evidence from the european carbon market. *Review of economics and statistics*, 98(1):173–191.
- Campiglio, E., Dafermos, Y., Monnin, P., Ryan-Collins, J., Schotten, G., and Tanaka, M. (2018). Climate change challenges for central banks and financial regulators. *Nature Climate Change*, 8(6):462–468.
- Carattini, S. and Sen, S. (2019). Carbon taxes and stranded assets: Evidence from washington state. Working Paper 1910, Grantham Research Institute on Climate Change and the Environment.
- Carbone, S., Giuzio, M., Kapadia, S., Kramer, J. S., Nyholm, K., and Vozian, K. (2021). The low-carbon transition, climate commitments and firm credit risk. Working Paper Series 2631, European Central Bank.
- Carney, M. (2015). Breaking the tragedy of the horizon—climate change and financial stability. Speech given at Lloyd’s of London.
- Carney, M. (2016). Resolving the climate paradox. Arthur Burns Memorial Lecture, Berlin.
- Cavalcanti, T., Hasna, Z., and Santos, C. (2021). Climate Change Mitigation Policies: Aggregate and Distributional Effects. Working Papers EPRG2104, Energy Policy Research Group, Cambridge Judge Business School, University of Cambridge.
- Cavallo, E., Galiani, S., Noy, I., and Pantano, J. (2013). Catastrophic natural disasters and economic growth. *Review of Economics and Statistics*, 95(5):1549–1561.
- Chen, D. B., van der Beek, J., and Cloud, J. (2019). Hypothesis for a risk cost of carbon: Revising the externalities and ethics of climate change. In *Understanding Risks and Uncertainties in Energy and Climate Policy*, pages 183–222. Springer.
- Ciscar, J. C., Feyen, L., Ibarreta, D., and Soria, A. (2018). Climate impacts in europe: Final report of the jrc peseta iii project. Working Paper 29427, Joint Research Centre, Scientific and technical research series.
- Cleary, P., Harding, W., McDaniels, J., Svoronos, J.-P., and Yong, J. (2019). Turning up the heat: Climate risk assessment in the insurance sector. FSI Insights 20, Bank for International Settlements.
- Coelho, R. and Restoy, F. (2022). The regulatory response to climate risks: Some challenges. FSI Briefs 16, Bank for International Settlements.

- Cohen, G., Jalles, J. T., Loungani, M. P., and Marto, R. (2017). *Emissions and growth: Trends and cycles in a globalized world*. International Monetary Fund.
- Dafermos, Y., Nikolaidi, M., and Galanis, G. (2017). A stock-flow-fund ecological macroeconomic model. *Ecological Economics*, 131:191–207.
- Dafermos, Y., Nikolaidi, M., and Galanis, G. (2018). Climate change, financial stability and monetary policy. *Ecological Economics*, 152:219–234.
- De Bandt, O., Jacolin, L., and Lemaire, T. (2021). Climate Change in Developing Countries: Global Warming Effects, Transmission Channels and Adaptation Policies. Working papers 822, Banque de France.
- De Perthuis, C. (2011). Carbon markets regulation: The case for a CO2 central bank. Technical report, Université Paris-Dauphine.
- Dees, S. (2020). Assessing the Role of Institutions in Limiting the Environmental Externalities of Economic Growth. Working papers 768, Banque de France.
- Dell, M., Jones, B. F., and Olken, B. A. (2014). What do we learn from the weather? the new climate-economy literature. *Journal of Economic Literature*, 52(3):740–98.
- Devulder, A. and Lisack, N. (2020). Carbon Tax in a Production Network: Propagation and Sectoral Incidence. Working papers 760, Banque de France.
- Dicou, D., van Ewijk, S., Kakes, J., Regelink, M., and Schotten, G. (2016). Time for Transition - an exploratory study of the transition to a carbon-neutral economy. DNB Occasional Studies 1402, Netherlands Central Bank.
- Dietz, S., Bowen, A., Dixon, C., and Gradwell, P. (2016). Climate value at risk of global financial assets. *Nature Climate Change*, 6(7):676–679.
- Dietz, S. and Stern, N. (2015). Endogenous growth, convexity of damage and climate risk: How nordhaus’ framework supports deep cuts in carbon emissions. *The Economic Journal*, 125(583):574–620.
- Diffenbaugh, N. S. and Burke, M. (2019). Global warming has increased global economic inequality. *Proceedings of the National Academy of Sciences*, 116(20):9808–9813.
- Dijk, J., van den End, J. W., Luijendijk, R., Schotten, G., and Bisschop, S. S. (2021). Financing the transition: Seizing opportunities for a green recovery. DNB Occasional Studies 1902, Netherlands Central Bank.
- Dikau, S. and Volz, U. (2018). Central banking, climate change, and green finance. Working Paper 867, Asian Development Bank.
- Direction Générale du Trésor (2017). Evaluating climate change risks in the banking sector. Working Paper 173, Directorate General of the Treasury (with support from the Banque de France and the ACPR).
- Doda, B. (2014). Evidence on business cycles and co2 emissions. *Journal of Macroeconomics*, 40:214–227.

- Donadelli, M., Jüppner, M., Riedel, M., and Schlag, C. (2017). Temperature shocks and welfare costs. *Journal of Economic Dynamics and Control*, 82:331–355.
- D’Orazio, P. and Popoyan, L. (2019). Fostering green investments and tackling climate-related financial risks: Which role for macroprudential policies? *Ecological Economics*, 160:25–37.
- Dunz, N., Monasterolo, I., and Raberto, M. (2018). Donât forget climate sentiments: Real and financial marketsâ reactions to climate risks.
- EASAC (2019). The imperative of climate action to protect human health in europe. EASAC European Academiesâ Science Advisory Council Halle, Germany.
- Economides, G., Papandreou, A., Sartzetakis, E., and Xepapadeas, A. (2018). *The economics of climate change*. Bank of Greece.
- Ehlers, T., Gao, D., and Packer, F. (2021a). A taxonomy of sustainable finance taxonomies. BIS Papers 118, Bank for International Settlements.
- Ehlers, T., Mojon, B., and Packer, F. (2020). Green bonds and carbon emissions: Exploring the case for a rating system at the firm level. BIS Quaterly Review September, Bank for International Settlements.
- Ehlers, T. and Packer, F. (2017). Green bond finance and certification. BIS Quaterly Review September, Bank for International Settlements.
- Ehlers, T., Packer, F., and de Greiff, K. (2021b). The pricing of carbon risk in syndicated loans: Which risks are priced and why? *Journal of Banking & Finance*, page 106180.
- Engle, R. F., Giglio, S., Kelly, B., Lee, H., and Stroebel, J. (2020). Hedging climate change news. *The Review of Financial Studies*, 33(3):1184–1216.
- Estrada, A. and Santabárbara, D. (2021). Recycling carbon tax revenues in Spain. Environmental and economic assessment of selected green reforms. Working Papers 2119, Banco de España.
- Faiella, I. and Natoli, F. (2018). Natural catastrophes and bank lending: The case of flood risk in italy. Working Paper 457, Bank of Italy Occasional Paper.
- Fankhauser, S. and Tol, R. S. (2005). On climate change and economic growth. *Resource and Energy Economics*, 27(1):1–17.
- Farid, M., Keen, M., Papaioannou, M., Parry, I., Pattillo, C., Ter-Martirosyan, A., et al. (2016). After paris: Fiscal, macroeconomic, and financial implications of climate change. *IMF Staff Discussion Note*, 16(1).
- Farmer, J. D., Hepburn, C., Mealy, P., and Teytelboym, A. (2015). A third wave in the economics of climate change. *Environmental and Resource Economics*, 62(2):329–357.
- Fender, I., McMorrow, M., Sahakyan, V., and Zulaica, O. (2019a). Green bonds: Features and trends. BIS Quaterly Review September, Bank for International Settlements.
- Fender, I., McMorrow, M., Sahakyan, V., and Zulaica, O. (2019b). Green bonds: The reserve management perspective. BIS Quaterly Review September, Bank for International Settlements.

- Fender, I., McMorrow, M., Sahakyan, V., and Zulaica, O. (2020). Reserve management and sustainability: The case for green bonds? BIS Working Papers 849, Bank for International Settlements.
- Fernández-Amador, O., Francois, J. F., Oberdabernig, D. A., and Tomberger, P. (2017). Carbon dioxide emissions and economic growth: An assessment based on production and consumption emission inventories. *Ecological economics*, 135:269–279.
- Ferrari, M. and Pagliari, M. S. (2021). No country is an island. International cooperation and climate change. Working papers 815, Banque de France.
- Four Twenty Seven (2017). Measuring physical climate risk in equity portfolios. Technical report, Deutsche Asset Management Global Research Institute.
- Galindo, L. M. and Samaniego, J. (2010). The economics of climate change in Latin America and the Caribbean: stylized facts. *Revista CEPAL*.
- Gallic, E. and Vermandel, G. (2019). Weather Shocks. AMSE Working Papers 1915, Aix-Marseille School of Economics, France.
- Giglio, S., Maggiori, M., Rao, K., Stroebel, J., and Weber, A. (2021). Climate change and long-run discount rates: Evidence from real estate. *The Review of Financial Studies*, 34(8):3527–3571.
- Gillingham, K. and Stock, J. H. (2018). The cost of reducing greenhouse gas emissions. *Journal of Economic Perspectives*, 32(4):53–72.
- Gimeno, R. and Gonzalez, C. I. (2022). Impact of environmental factors on credit risk of commercial banks. Technical report, Banco de España. To appear.
- Gonzalez, C. I. and Nunez, S. (2021). Markets, financial institutions and central banks in the face of climate change: Challenges and opportunities. Occasional Papers 2126, Banco de España.
- Görngen, M., Jacob, A., Nerlinger, M., Riordan, R., Rohleder, M., and Wilkens, M. (2020). Carbon risk. Working paper, University of Augsburg.
- Gourio, F. (2012). Disaster risk and business cycles. *American Economic Review*, 102(6):2734–66.
- Gramlich, D. (2018). Sustainability stress testing the financial system: Challenges and approaches. In *Designing a Sustainable Financial System*, pages 173–197. Springer.
- Gratcheva, E. M., Emery, T., and Wang, D. (2020). Demystifying Sovereign ESG. World Bank Publications - Reports 35586, World Bank Group, Washington, DC.
- Gratcheva, E. M., Gurhy, B., Emery, T., Wang, D., Oganess, L., Linzie, J. K., Harvey, L., Marney, K., Murray, J., and Rink, R. (2021). *A New Dawn: Rethinking Sovereign ESG*. World Bank Group, Washington, DC.
- Gray, W. B. and Shadbegian, R. J. (1998). Environmental regulation, investment timing, and technology choice. *The Journal of Industrial Economics*, 46(2):235–256.

- Gros, D., Lane, P. R., Langfield, S., Matikainen, S., Pagano, M., Schoenmaker, D., and Suarez, J. (2016). *Too late, too sudden: Transition to a low-carbon economy and systemic risk*. Number 6. Reports of the ESRB Advisory Scientific Committee.
- Guerrero, S. (2012). Do Agricultural Contracts Affect Grain Prices? Evidence from Mexico. Working Papers 2012-15, Banco de México.
- Guerrero Escobar, S., Juárez Torres, M., and López Cabrera, J. (2014). Corn production, cultivated area and price responses to climate change in Mexico. Technical report, Report to the Latin American and Caribbean Environmental Economics Program (LACEEP).
- Hartley, P., Medlock, Kenneth B., I., Temzelides, T., and Zhang, X. (2014). Energy Sector Innovation and Growth. Working Papers 14-009, Rice University, Department of Economics.
- Hassler, J., Krusell, P., and Olovsson, C. (2018). The consequences of uncertainty: Climate sensitivity and economic sensitivity to the climate. *Annual Review of Economics*, 10:189–205.
- Hebbink, G., Berkvens, L., Bun, M., van Kerkhoff, H., Koistinen, J., Schotten, G., Stokman, A., et al. (2018). The price of transition: An analysis of the economic implications of carbon taxing. Working Paper 1608, Netherlands Central Bank.
- Henriet, F., Maggiar, N., and Schubert, K. (2014). A stylized applied energy-economy model for France. *The Energy Journal*, 35(4).
- Ho, K. and Wong, A. (2021). Effect of climate-related risk on the pricing of bank loans: Evidence from syndicated loan markets in Asia Pacific. Working paper 06/2021, Hong Kong Monetary Authority.
- Houser, T., Hsiang, S., Kopp, R., Larsen, K., Delgado, M., Jina, A., Mastrandrea, M., Mohan, S., Muir-Wood, R., Rasmussen, D., et al. (2015). *Economic risks of climate change: An American prospectus*. Columbia University Press.
- Hsiang, S., Kopp, R., Jina, A., Rising, J., Delgado, M., Mohan, S., Rasmussen, D., Muir-Wood, R., Wilson, P., Oppenheimer, M., et al. (2017). Estimating economic damage from climate change in the United States. *Science*, 356(6345):1362–1369.
- Hsiang, S. and Kopp, R. E. (2018). An economist’s guide to climate change science. *Journal of Economic Perspectives*, 32(4):3–32.
- Hsiang, S. M. and Jina, A. S. (2014). The Causal Effect of Environmental Catastrophe on Long-Run Economic Growth: Evidence From 6,700 Cyclones. NBER Working Papers 20352, National Bureau of Economic Research.
- ILO (2019). Working on a warmer planet: The impact of heat stress on labour productivity and decent work. ILO Geneva, Switzerland.
- Initiative, C. T. (2018). Mind the gap: The \$1.6 trillion energy transition risk. Technical report, Carbon Tracker Initiative.
- IRENA (2017). *Perspectives for the energy transition investment needs for a low-carbon energy system*. International Renewable Energy Agency, Abu Dhabi.
- IRENA (2019). *Global energy transformation: a roadmap to 2050*. International Renewable Energy Agency, Abu Dhabi.

- Isoré, M. (2018). Changes in Natural Disaster Risk: Macroeconomic Responses in Selected Latin American Countries. *Economies*, 6(1):1–12.
- Isoré, M. and Szczerbowicz, U. (2017). Disaster risk and preference shifts in a new keynesian model. *Journal of Economic Dynamics and Control*, 79:97–125.
- Jachnik, R. and Dobrinevski, A. (2021). Measuring the alignment of real economy investments with climate mitigation objectives: The united kingdom’s buildings sector. OECD Environment Working Papers 172, OECD Publishing, Paris.
- Jaffe, A. B., Newell, R. G., and Stavins, R. N. (2003). Technological change and the environment. In *Handbook of environmental economics*, volume 1, pages 461–516. Elsevier.
- Janssen, A., Dijk, J., and Duijm, P. (2021). Misleading footprints inflation and exchange rate effects in relative carbon disclosure metrics. DNB Occasional Studies 1901, Netherlands Central Bank.
- Johnson, D. (2008). Australia’s low pollution future: The economics of climate change mitigation. Technical report, Department of the Treasury (Australia).
- Jondeau, E., Mojon, B., and Monnet, C. (2021a). Greening (runnable) brown assets with a liquidity backstop. BIS Working Papers 929, Bank for International Settlements.
- Jondeau, E., Mojon, B., and Pereira da Silva, L. A. (2021b). Building benchmarks portfolios with decreasing carbon footprints. *Swiss Finance Institute Research Paper*, (21-91).
- Juarez-Torres, M. and Sanchez-Aragon, L. (2012). Effectiveness of weather derivatives as a cross-hedging instrument against climate change: The cases of reservoir water allocation management in guanajuato, mexico and lambayeque, peru. Working Paper 328, Inter-American Development Bank.
- Juárez-Torres, M., Sánchez-Aragón, L., and Vedenov, D. (2017). Weather derivatives and water management in developing countries: An application for an irrigation district in central mexico. *Journal of Agricultural and Resource Economics*, pages 146–163.
- Kahn, M. E., Mohaddes, K., Ng, R. N., Pesaran, M. H., Raissi, M., and Yang, J.-C. (2021). Long-term macroeconomic effects of climate change: A cross-country analysis. *Energy Economics*, 104:105624.
- Kapfhammer, F., Larsen, V. H., and Thorsrud, L. A. (2020). Climate risk and commodity currencies. Working Paper 2020/18, Norges Bank.
- Kelly, S., Yeo, J. Z., Coburn, A., Copic, J., Crawford-Brown, D., Foley, A., Nedum, E., Ralph, D., Saidi, F., and Reynolds, J. (2015). Unhedgeable climate risk how climate change sentiment impacts investment. Working paper, University of Cambridge.
- Khan, H., Metaxoglou, K., Knittel, C. R., and Papineau, M. (2019). Carbon emissions and business cycles. *Journal of Macroeconomics*, 60:1–19.
- Kohlscheen, E., Moessner, R., and Takáts, E. (2021). Growth, coal and carbon emissions: Economic overheating and climate change. BIS Working Papers 937, Bank for International Settlements.

- Krogstrup, S. and Oman, W. (2019). Macroeconomic and Financial Policies for Climate Change Mitigation: A Review of the Literature. IMF Working Papers 2019/185, International Monetary Fund.
- Lamperti, F., Bosetti, V., Roventini, A., and Tavoni, M. (2019). The public costs of climate-induced financial instability. *Nature Climate Change*, 9(11):829–833.
- Lane, P. R. (2019). Climate Change and the Irish Financial System. Economic Letters 1/EL/19, Central Bank of Ireland.
- Lau, P., Sze, A., Wan, W., and Wong, A. (2022). The economics of the greenium: How much is the world willing to pay to save the earth? *Environmental and Resource Economics*, pages 1–30.
- Le Quéré, C., Korsbakken, J. I., Wilson, C., Tosun, J., Andrew, R., Andres, R. J., Canadell, J. G., Jordan, A., Peters, G. P., and van Vuuren, D. P. (2019). Drivers of declining co₂ emissions in 18 developed economies. *Nature Climate Change*, 9(3):213–217.
- Letta, M. and Tol, R. S. (2019). Weather, climate and total factor productivity. *Environmental and Resource Economics*, 73(1):283–305.
- Levi, M., Kjellstrom, T., and Baldasseroni, A. (2018). Impact of climate change on occupational health and productivity: A systematic literature review focusing on workplace heat. *La Medicina del Lavoro*, 109:163 – 179.
- Macaire, C. and Naef, A. (2021). Greening monetary policy: evidence from the peopleâs bank of china. *Climate Policy*, pages 1–12.
- Manson, S. M. (2006). Catastrophe Modeling: A New Approach to Managing Risk, edited by Patricia Grossi and Howard Kunreuther. *Journal of Regional Science*, 46(4):794–796.
- Marqués, J. M. and Gonzalez, L. R. (2018). The risk of climate change in financial markets and institutions: international challenges, measures and initiatives. *Revista de Estabilidad Financiera*, (MAY).
- Martínez-Cruz, A. L., Juárez-Torres, M., and Guerrero, S. (2017). Assessing impacts from climate change on local social-ecological systems in contexts where information is lacking: An expert elicitation in the bolivian altiplano. *Ecological Economics*, 137:70–82.
- Matikainen, S., Campiglio, E., and Zenghelis, D. (2017). The climate impact of quantitative easing. Working paper 36, Policy Paper, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science.
- McKibbin, W., Morris, A., Panton, A. J., and Wilcoxon, P. J. (2017). Climate change and monetary policy: Dealing with disruption. CAMA Working Papers 2017-77, Centre for Applied Macroeconomic Analysis, Crawford School of Public Policy, The Australian National University.
- Mercure, J.-F., Pollitt, H., Edwards, N. R., Holden, P. B., Chewpreecha, U., Salas, P., Lam, A., Knobloch, F., and Vinuales, J. E. (2018a). Environmental impact assessment for climate change policy with the simulation-based integrated assessment model e3me-fft-genie. *Energy Strategy Reviews*, 20:195–208.

- Mercure, J.-F., Pollitt, H., Viñuales, J. E., Edwards, N. R., Holden, P. B., Chewpreecha, U., Salas, P., Sognnaes, I., Lam, A., and Knobloch, F. (2018b). Macroeconomic impact of stranded fossil fuel assets. *Nature Climate Change*, 8(7):588–593.
- Mésonnier, J.-S. (2019). Banks’ climate commitments and credit to brown industries: new evidence for France. Working papers 743, Banque de France.
- Mésonnier, J.-S. and Nguyen, B. (2021). Showing off cleaner hands: mandatory climate-related disclosure by financial institutions and the financing of fossil energy. Working papers 800, Banque de France.
- Meza-Pale, P. and Yunez-Naude, A. (2015). The effect of rainfall variation on agricultural households: Evidence from Mexico. 2015 Conference, August 9-14, 2015, Milan, Italy 212457, International Association of Agricultural Economists.
- Moles, P. F. (2020). Climate and environmental risks and opportunities in Mexico’s financial system. from diagnosis to action. Technical report, Banco de México.
- Monasterolo, I. and Battiston, S. (2019). A climate risk assessment of sovereign bonds’ portfolio. Working paper, University of Zurich, FINEXUS Center and WU Vienna University of Economics and Business.
- Monasterolo, I. and Raberto, M. (2017). Is there a role for central banks in the low-carbon transition? a stock-flow consistent modelling approach. Technical report, WU Vienna University of Economics and Business.
- Monasterolo, I. and Raberto, M. (2018). The EIRIN flow-of-funds behavioural model of green fiscal policies and green sovereign bonds. *Ecological Economics*, 144:228–243.
- Monasterolo, I., Zheng, J. I., and Battiston, S. (2018). Climate transition risk and development finance: A carbon risk assessment of China’s overseas energy portfolios. *China & World Economy*, 26(6):116–142.
- Monnin, P. (2018). Central banks and the transition to a low-carbon economy. Working paper 1, Council On Economic Policies, Discussion Note.
- Morana, C. and Sbrana, G. (2019). Climate change implications for the catastrophe bonds market: An empirical analysis. *Economic Modelling*, 81:274–294.
- Moreno, A. I. and Caminero, T. (2020). Application of text mining to the analysis of climate-related disclosures. Working Papers 2035, Banco de España.
- Nieto, M. (2022). Whatever it Takes to Reach Net Zero Emissions Around 2050 and Limit Global Warming to 1.5°C: The Cases of United States, China, European Union and Japan. BAFFI CAREFIN Working Papers 22170, Centre for Applied Research on International Markets Banking Finance and Regulation, Università Bocconi, Milano, Italy.
- Nieto, M. J. (2019). Banks, climate risk and financial stability. *Journal of Financial Regulation and Compliance*.
- Nordhaus, W. (2018). Projections and uncertainties about climate change in an era of minimal climate policies. *American Economic Journal: Economic Policy*, 10(3):333–60.

- Nordhaus, W. D. and Moffat, A. (2017). A Survey of Global Impacts of Climate Change: Replication, Survey Methods, and a Statistical Analysis. NBER Working Papers 23646, National Bureau of Economic Research.
- Nordic Public Sector Issuers (2019). Position paper on green bonds impact reporting. Technical report.
- Noy, I. (2009). The macroeconomic consequences of disasters. *Journal of Development economics*, 88(2):221–231.
- Ochuodho, T. O. and Lantz, V. A. (2015). Economic impacts of climate change on agricultural crops in Canada by 2051: A global multi-regional CGE model analysis. *Environmental Economics*, 6(1):113–125.
- OECD. (2020). *OECD Business and Finance Outlook 2020 Sustainable and Resilient Finance*. OECD Publishing, Paris.
- Ongena, S., Delis, M., and de Greiff, K. (2018). Being stranded on the carbon bubble? climate policy risk and the pricing of bank loans. Working Paper 12928, Centre for Economic Policy Research, London.
- Oustry, A., Erkan, B., Svartzman, R., and Weber, P.-F. (2020). Climate-related Risks and Central Banks’s Collateral Policy: a Methodological Experiment. Working papers 790, Banque de France.
- Pablo, M. and Antonio, Y. (2015). The effect of rainfall variation on agricultural households: Evidence from Mexico. In *International Conference of Agricultural Economists*, number 1.
- Pindyck, R. S. (2013). Climate change policy: What do the models tell us? *Journal of Economic Literature*, 51(3):860–72.
- Popp, D. (2006). International innovation and diffusion of air pollution control technologies: The effects of NOX and SO2 regulation in the US, Japan, and Germany. *Journal of Environmental Economics and Management*, 51(1):46–71.
- PRA (2015). The impact of climate change on the UK insurance sector. Technical report, Prudential Regulation Authority (UK).
- Reid, J., Bernhardt, A., Sowden, S., and Lockridge, K. (2021). Mercer: Investing in a time of climate change—the sequel. In *World Scientific Encyclopedia of Climate Change: Case Studies of Climate Risk, Action, and Opportunity Volume 1*, pages 51–56. World Scientific.
- Rezai, A. and Stiglitz, J. (2016). Ecological Macroeconomics: Introduction and Review. *Ecological Economic Papers* 9, WU Vienna University of Economics and Business.
- Ricke, K., Drouot, L., Caldeira, K., and Tavoni, M. (2018). Country-level social cost of carbon. *Nature Climate Change*, 8(10):895–900.
- Rishanty, A., Setiastuti, S. U., and Purwanto, N. M. A. (2021). The Growth Agenda And Financing Green Projects: An Environmental DSGE Approach. Working Papers WP/02/2021, Bank of Indonesia.

- Rishanty, A. and Suryahadi, A. (2020). Circular Economy And Productivity In A Large Developing Country: Empirical Evidence From Indonesia. Working Papers WP/10/2020, Bank of Indonesia.
- Rivera, G. L., Reynès, F., Cortes, I. I., Bellocq, F.-X., and Grazi, F. (2016). Towards a low carbon growth in mexico: Is a double dividend possible? a dynamic general equilibrium assessment. *Energy Policy*, 96:314–327.
- Roncoroni, A., Battiston, S., Escobar-Farfán, L. O., and Martinez-Jaramillo, S. (2021). Climate risk and financial stability in the network of banks and investment funds. *Journal of Financial Stability*, 54:100870.
- Rozenberg, J., Vogt-Schilb, A., and Hallegatte, S. (2014). Transition to clean capital, irreversible investment and stranded assets. *Econometric Modeling: Agriculture*.
- Rubashkina, Y., Galeotti, M., and Verdolini, E. (2015). Environmental regulation and competitiveness: Empirical evidence on the porter hypothesis from european manufacturing sectors. *Energy Policy*, 83:288–300.
- Scatigna, M., Xia, D., Zabai, A., and Zulaica, O. (2021). Achievements and challenges in esg markets. BIS Quaterly Review December, Bank for International Settlements.
- Schmieder, C., Tissot, B., Esham, N., Kling, L., Yang, H., et al. (2021). Sustainable finance data for central banks. IFC Report 14, Bank for International Settlements – IFC.
- Schoenmaker, D. (2021). Greening monetary policy. *Climate Policy*, 21(4):581–592.
- Schoenmaker, D. and Van Tilburg, R. (2016). What role for financial supervisors in addressing environmental risks? *Comparative Economic Studies*, 58(3):317–334.
- Scott, M., van Huizen, J., and Jung, C. (2017). The bank of england’s response to climate change. Quarterly Bulletin 2017 Q2, Bank of England Quarterly Bulletin.
- Serrano-Puente, D. (2021). Are we moving towards an energy-efficient low-carbon economy? An input-output LMDI decomposition of CO2 emissions for Spain and the EU28. Working Papers 2104, Banco de España.
- Sheng, Y. and Xu, X. (2019). The productivity impact of climate change: Evidence from australia’s millennium drought. *Economic Modelling*, 76:182–191.
- Skidmore, M. and Toya, H. (2002). Do natural disasters promote long-run growth? *Economic inquiry*, 40(4):664–687.
- Slevin, D., Hoerter, S., Humphreys, N., Viñes Fiestas, H., Lovisolo, S., Wilmotte, J., Latini, P., Fettes, N., Kidney, S., Dixon-Decleve, S., et al. (2020). Taxonomy: Final report of the technical expert group on sustainable finance. Technical report, Brussels: European Commission.
- Smulders, S., Toman, M., and Withagen, C. (2014). Growth theory and âgreen growthâ. *Oxford review of economic policy*, 30(3):423–446.
- Stenek, V., Amado, J. C., and Connell, R. (2010). *Climate risk and financial institutions: Challenges and opportunities*. International Finance Corporation.

- Stenek, V., Amado, J. C., and Connell, R. (2011). Climate risk and financial institutions: Challenges and opportunities. Technical report, World Bank Group, Washington, DC.
- Stern, N. (2013). The structure of economic modeling of the potential impacts of climate change: Grafting gross underestimation of risk onto already narrow science models. *Journal of Economic Literature*, 51(3):838–59.
- Streletskiy, D. A., Suter, L. J., Shiklomanov, N. I., Porfiriev, B. N., and Eliseev, D. O. (2019). Assessment of climate change impacts on buildings, structures and infrastructure in the russian regions on permafrost. *Environmental Research Letters*, 14(2):025003.
- Sugino, M., Arimura, T. H., and Morgenstern, R. D. (2013). The effects of alternative carbon mitigation policies on japanese industries. *Energy Policy*, 62:1254–1267.
- Svartzman, R., Espagne, E., Gauthey, J., Hadji-Lazaro, P., Salin, M., Allen, T., Berger, J., Calas, J., Godin, A., and Vallier, A. (2021). A "Silent Spring" for the Financial System? Exploring Biodiversity-Related Financial Risks in France. Working papers 826, Banque de France.
- Tandon, A. (2021). Transition finance: Investigating the state of play: A stocktake of emerging approaches and financial instruments. OECD Environment Working Papers 179, OECD Publishing, Paris.
- Tol, R. S. (2009). The economic effects of climate change. *Journal of economic perspectives*, 23(2):29–51.
- Tong, D., Zhang, Q., Zheng, Y., Caldeira, K., Shearer, C., Hong, C., Qin, Y., and Davis, S. J. (2019). Committed emissions from existing energy infrastructure jeopardize 1.5 c climate target. *Nature*, 572(7769):373–377.
- Toumi, R. and Restell, L. (2014). Catastrophe modelling and climate change. *Climate Signals*.
- Van der Ploeg, F. (2014). Abrupt positive feedback and the social cost of carbon. *European Economic Review*, 67:28–41.
- Vandyck, T., Weitzel, M., Wojtowicz, K., Rey Los Santos, L., Maftai, A., and Riscado, S. (2021). Climate policy design, competitiveness and income distribution: A macro-micro assessment for 11 EU countries. *Energy Economics*, 103(C).
- Verdolini, E. and Galeotti, M. (2011). At home and abroad: An empirical analysis of innovation and diffusion in energy technologies. *Journal of environmental economics and management*, 61(2):119–134.
- Vermeulen, R., Schets, E., Lohuis, M., Kölbl, B., Jansen, D.-J., and Heeringa, W. (2021). The heat is on: A framework for measuring financial stress under disruptive energy transition scenarios. *Ecological Economics*, 190:107205.
- Waldhoff, S., Anthoff, D., Rose, S., and Tol, R. S. (2014). The marginal damage costs of different greenhouse gases: An application of fund. *Economics*, 8(1).
- Weber, O. and Kholodova, O. (2017). Climate change and the canadian financial sector. Working paper 134, Centre for International Governance Innovation.

- Wei, D., Brugués, A., Rose, A., Carlos, A., García, R., and Martínez, F. (2017). Climate change and the economy in baja california: Assessment of macroeconomic impacts of the state's climate action plan. *Ecological Economics*, 131:373–388.
- Weyzig, F., Kuepper, B., Van Gelder, J. W., and Van Tilburg, R. (2014). The price of doing too little too late: The impact of the carbon bubble on the eu financial system. *Green New Deal Series*, 11.
- Wright, A. and Borda, P. (2016). Macroeconomic Fluctuations Under Natural Disaster Shocks in Central America and the Caribbean. IDB Publications (Working Papers) 8039, Inter-American Development Bank.
- Yin, H., Ma, S., Yang, X., and Qiu, M. (2016). Impact of environmental factors on credit risk of commercial banks. Technical report, Industrial and Commercial Bank of China.
- Zachmann, G., Fredriksson, G., and Claeys, G. (2018). The distributional effects of climate policies. Working Paper 28, Bruegel. Blueprint Series.