

***“The pricing and term structure of environmental risk in syndicated loans”***

**Discussion of de Greiff, Ehlers, Packer (2018)**

***Bundesbank/CEP Conference on Scaling up green finance: the role of central banks***

***Berlin, 8-9 November 2018***

**Jean-Stéphane Mésonnier**

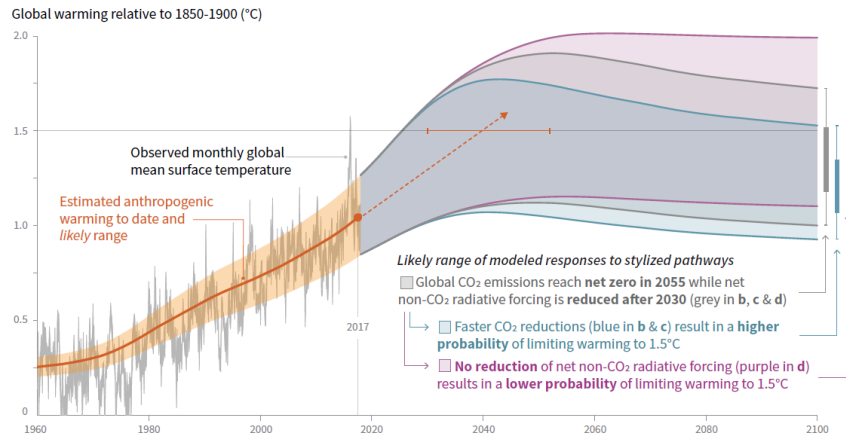
Banque de France

*Disclaimer: Opinions expressed are the author's own and do not necessarily reflect the views of the Banque de France or the Eurosystem.*

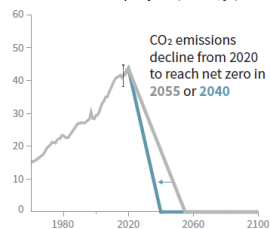
# Scaling up green finance now

## Cumulative emissions of CO<sub>2</sub> and future non-CO<sub>2</sub> radiative forcing determine the probability of limiting warming to 1.5°C

a) Observed global temperature change and modeled responses to stylized anthropogenic emission and forcing pathways



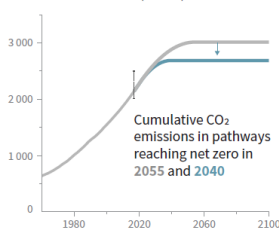
b) Stylized net global CO<sub>2</sub> emission pathways Billion tonnes CO<sub>2</sub> per year (GtCO<sub>2</sub>/yr)



Faster immediate CO<sub>2</sub> emission reductions limit cumulative CO<sub>2</sub> emissions shown in panel (c).

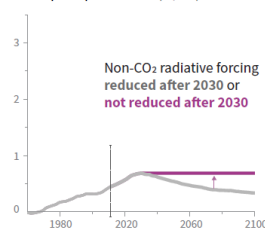
Source: IPCC Special Report on Global Warming of 1.5°C

c) Cumulative net CO<sub>2</sub> emissions Billion tonnes CO<sub>2</sub> (GtCO<sub>2</sub>)



Maximum temperature rise is determined by cumulative net CO<sub>2</sub> emissions and net non-CO<sub>2</sub> radiative forcing due to methane, nitrous oxide, aerosols and other anthropogenic forcing agents.

d) Non-CO<sub>2</sub> radiative forcing pathways Watts per square metre (W/m<sup>2</sup>)



- Objective of +1,5°C global warming out of reach unless drastic cut in global emissions = 0 in 2050
- Financing needs for orderly transition are huge: invest \$90 trns in clean infrastructure before 2030 (NCE, 2016) = 4,5 years of US GDP
- What banks can do:
  - Rebalance their portfolios out of brown industries: cf. greening commitments
  - Price climate-related risk properly => climate risk premium (transition/physical)

## *This paper*

- Polluting firms stand at risk of higher losses/lower performance when (if) climate policies seriously tackle climate change threat and curb emissions
- Do bank loans to carbon-intensive firms accordingly command a higher loan rate (=climate policy/risk premium)? Hypothesis: climate (transition) risk awareness risen by Paris Accord in 2015.
- Use syndicated loan data (DealScan) + firm-specific info on GHG intensity of sales (TruCost) + additional info on Environmental policy stringency and Banks' environmental commitments
- Regress spread of loan (margin) on firm's carbon-intensity interacted with post-2015 dummy + controls
- Climate risk premium identified post Paris Accord
- Complementary tests point to pricing of (short-term) transition, not physical risk

## Comments

- Important issue, neat empirical exercise
- Findings aligned with companion paper by Delis et al. (2018)
- Nevertheless, the authors could:
  - Enrich dataset and improve statistical description of data
  - Test more restrictive specifications
  - Better highlight economic significance
  - Develop more policy implications of negative finding related to “green” banks

## Comments: data

- Better explain merge of datasets: frequency of final sample of loans? (yearly? ) who is “the” lender in case of a syndicate? (leader?)
- More descriptive statistics required (cf. Table II = loan-level only)
  - Firm-level (some 1,150): notably, # of loans per firm
  - Bank-level: how many banks? Breakdown by region? Other measures of green banks?
- Explain loss of data:
  - ~30,000 loan obs in Table II, but only ~4,600 obs used in regression on Table III.
- Additional firm-level controls required:
  - Firm: profitability, tangible assets, market-to-book, size, leverage = all available from Compustat

## ***Comments: regression specification***

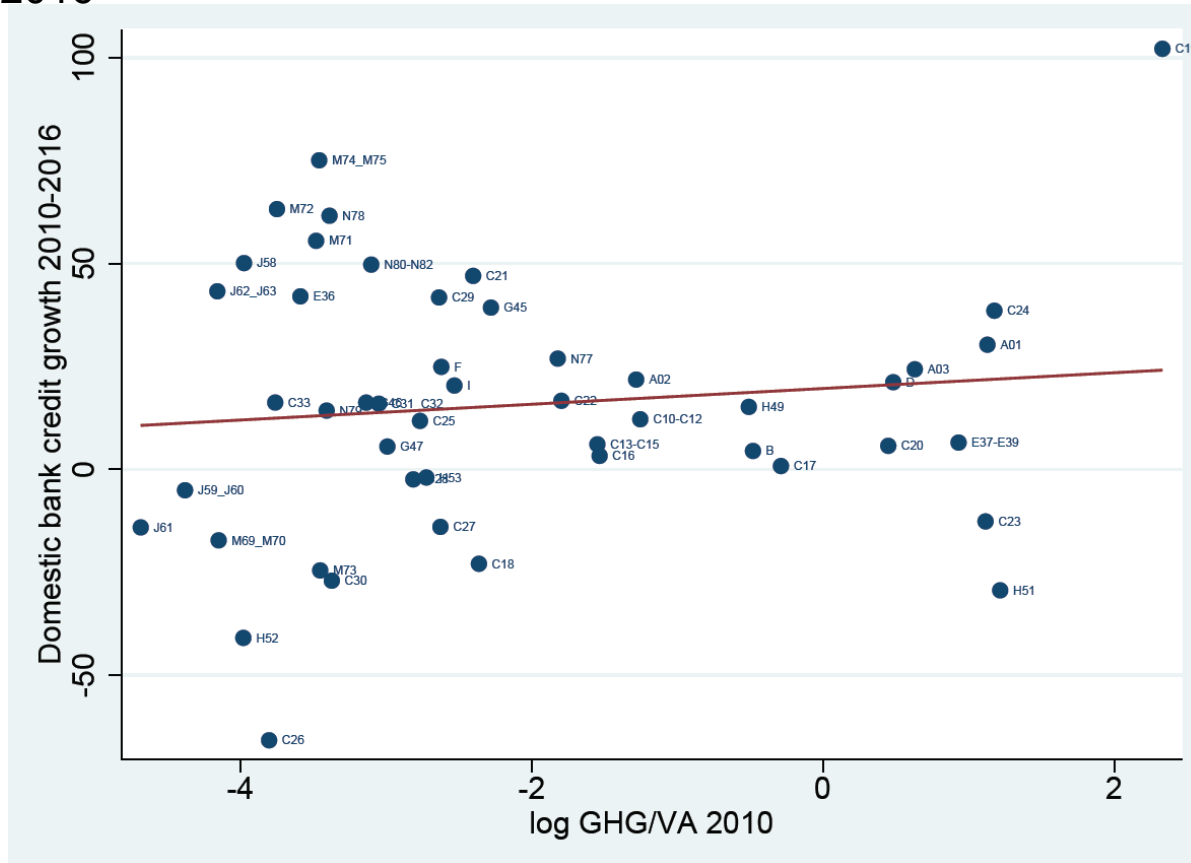
- Controlling for bank-level shocks:
  - Bank\*time fixed effects
  - Alternatively, Bank FE + time-varying bank controls: capitalization, dependence on wholesale funding, exposure to Lehman (Chodorow-Reich, 2014), exposure to GIIPS sovereign...
- Controlling for bank-firm relationship:
  - Previously lead or participant in syndicated loan to same firm?
  - Does stronger relationship alleviate climate-related concerns?
- Investigate interaction of Paris Accord and country's climate policy stringency (cf. table IV)
  - Is Paris Accord more credible where stricter rules apply?

## Comments: results

- Role of maturity:
  - Maturity choice endogenous to loan conditions and firm characteristics => instrument when focus on maturity\*CI ?
- Discussion of estimates:
  - Economic significance of estimated coefficient: comparing firms at p25-p75 of CI
  - How does it compare with findings in Delis et al. (2018) (stranded asset premium of some 20bp)
- Green banks do not seem to adjust their pricing to more CI firms
  - Are green statements of banks mere greenwashing?
  - Test for other measures: e.g. CDP scores

## Greener banks, no greener credit: complementary insights

No clear pattern of bank credit rebalancing out of brown sectors in France over 2010-2016



Source: Mésonnier, Zerbib (2018)



## *Policy implications*

- Banks' self interest may be enough for them to price in transition risk, at least partly
  - But credible climate policies required
  - Unlikely to be enough for banks to reshuffle massively credit across sectors
- Unless investors' pressure gains momentum, banks' green commitments may remain mere greenwashing
- Calls for public authorities to step in if green finance to be scaled up
  - Increase green funding by public development banks, with access to CB funding
  - Align MP (collateral haircuts/eligibility) and prudential (brown penalizing capital weights) frameworks w/ low-carbon objective?