

CLIMATE STRESS TESTS, BANK LENDING, AND THE TRANSITION TO THE CARBON-NEUTRAL ECONOMY

Authors: L. Fuchs; H. Nguyen; T. Nguyen; K. Schaeck

Discussant: Tristan Jourde (Banque de France)

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SUMMARY OF THE PAPER

- What is the effect of climate stress tests on bank lending and borrowers' environmental profile?
- Triple difference-in-difference exercise using the 2020-2021 French climate stress tests as a quasi-natural experiment.
- Treated banks increase their loans to polluting companies, but also the interest rate.
- Polluting borrowers of treated banks take additional environmental measures in the short term.



STRENGTH OF THE PAPER

- Very timely & relevant topic:
 - Can climate stress tests help reduce FI exposure to climate risks?
 - Can climate stress tests help finance the transition to the low-carbon economy?
- Limited literature on the effects of climate regulation on firms and FI.
- Well-designed and executed econometric framework
- Interesting results for both banks and borrowers that contribute to a key debate:
 - Should banks divest from polluting companies OR become more involved in supporting the transition?



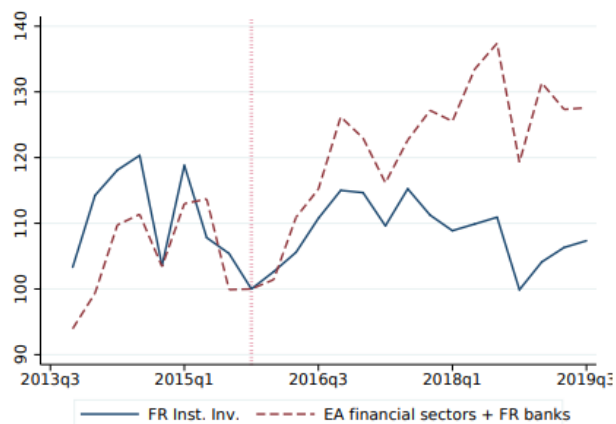
ENVIRONMENTAL RISK MEASURE

- Use of Reprisk: an environmental controversies metric for firms
- More volatile than carbon intensity measures:
 - A potential issue for the diff-in-diff framework?
 - More volatility -> related to short-term transition risk?
- Not in line with the French climate stress-test that is based on 55 sector activities & carbon price scenarios.
- Consider using an extractive industry dummy / climate policy-relevant sectors (Batiston et al., 2017) / carbon emission intensity as a robustness test?

RESULTS (I)

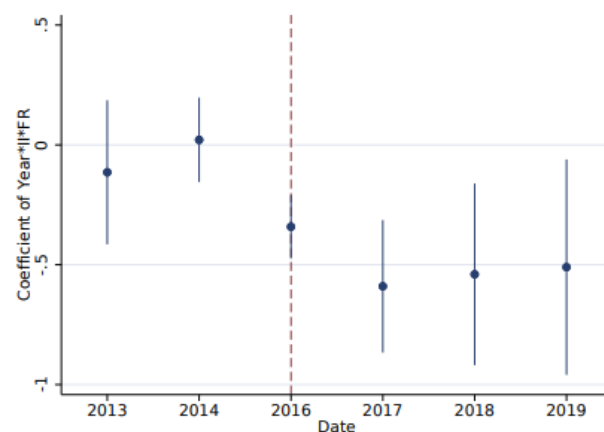
- Some results are not intuitive
- Visualization (e.g., Mésonnier and Nguyen, 2021):
 - Cumulative loans (What does the positive coefficient means?)
 - Dynamic specification for each year

FIGURE 5. Cumulated holdings of fossil energy securities, treated vs control financial institutions (2015Q4=100)



Note. This figure compares amounts of fossil energy securities held by “treated” institutions (French ICPF and AM firms) with amounts held by “control” institutions (French banks and all types of financial institutions in all other euro area countries). Both time series are scaled at 100 in December 2015 (vertical dotted line), just before the French disclosure regulation is enacted. Holdings are expressed at market value.

FIGURE 6. Estimated impact of the 2015 French regulation on climate-related disclosure: dynamic specification

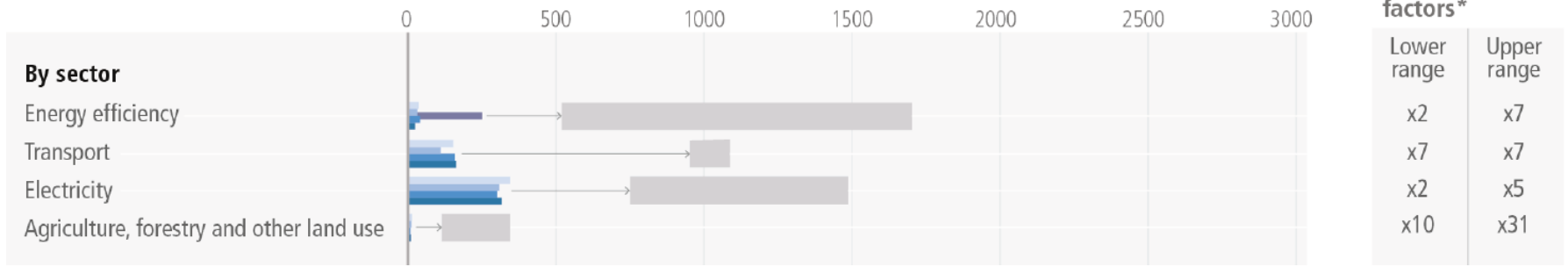


Note. This figure shows the estimated coefficients of the triple interaction terms $Year \times InstInv \times FR$ in a dynamic version of equation (1). 2015 is taken as a reference year and hence omitted. The vertical dotted line in 2016 corresponds to the year when the new climate-related disclosure regulation was enacted in France.

- IPCC figures:

Higher mitigation investment flows required for all sectors and regions to limit global warming

Actual yearly flows compared to average annual needs in billions USD (2015) per year



Source : Synthesis report of the IPCC sixth assessment report (ar6)



IS THE EFFECT SPECIFIC TO SYNDICATED LOANS?

- The results are based on a database of syndicated loans. What about other loans/securities?
- A potential trade-off: more loans, less securities?
- Risk trade-off: Securities are more risky in the short run (marked to market) AND in the long run in case of default.
- An influence trade-off: a long-term relationship through loans could create more opportunities for engagement.



IS THE EFFECT SPECIFIC TO FRANCE?

- The paper compares « treated » French banks with « non-treated » European banks.

ÉCONOMIE - ÉNERGIES FOSSILES

Les banques françaises, premières financeuses européennes des énergies fossiles en 2020

Entre 2016 et 2020, les financements des entreprises actives dans le pétrole et le gaz apportés par BNP Paribas, Société générale, Crédit agricole, Natixis et Crédit mutuel ont augmenté de 19 % par an en moyenne, dénoncent six ONG dans un rapport.

Par Véronique Chocron et Audrey Garric

Publié le 24 mars 2021 à 14h11, modifié le 25 mars 2021 à 06h46 ·  Lecture 5 min.

- **Additional control for the country effect:**
 - In Equation 1, consider running separate regressions for French banks & other banks.
 - Falsification tests are very useful; run a battery of these tests, especially for the random stress test date.
 - Can you run the diff-in-diff for treated and non-treated french banks?



OTHER COMMENTS

- More details on the syndicated loans would be helpful:
 - Can banks revise the volume/spread after the loan granting?
 - What do syndicated loans represent in terms of total assets/loans of banks?
- Regressions:
 - Possibility to include loan fixed-effects in regressions?
 - Other types of clustering in regressions (not only banks)
 - The frequency of Reprisk is quaterly but the final database is at annual frequency?



CONCLUSION

- Very interesting and thought-provoking article.
- Significant contribution to the literature on climate regulation.
- Main suggestions:
 - Robustness test with another environmental variable
 - More visualization tools
 - Enrich the analysis with other type of loans/securities?