

***“Being stranded on the Carbon Bubble? Climate policy risk and the cost of loans”***

**Discussion of Delis, de Greiff, Ongena (2017)**

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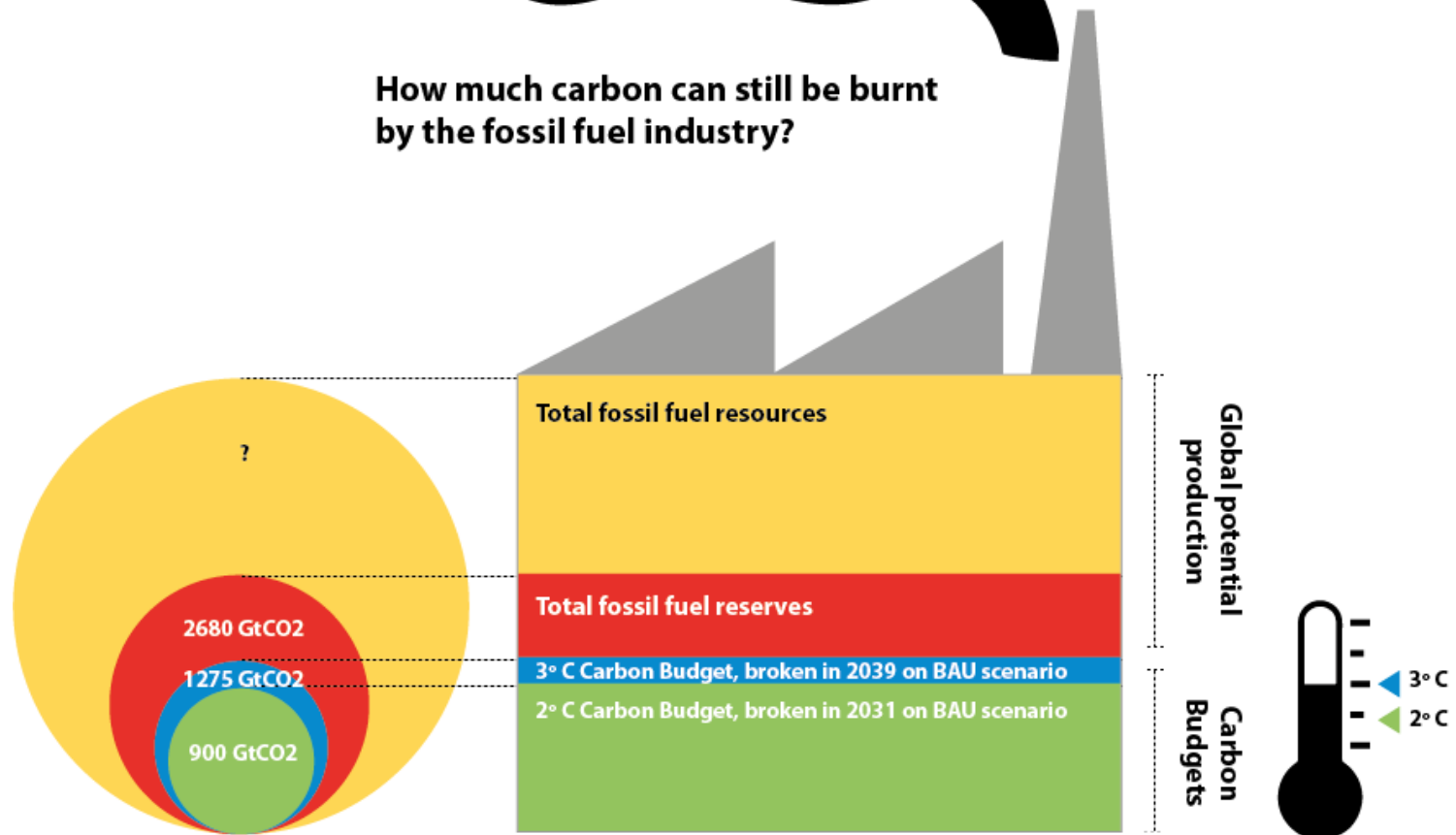
## *This paper*

- Unburnable fossil fuel reserves may become stranded when (if) climate policies seriously tackle climate change threat and curb emissions
- Do bank loans to firms heavily invested in fossil fuel (FF) reserves accordingly command a higher loan rate (=climate policy premium)? If not: “carbon bubble” (term coined in 2011)
- Use syndicated loan DB (DealScan) + firm BS info (Compustat) + hand-collected info on firms’ FF reserves (annual reports)
- Regress spread of loan on FF dummy, FF-related exposure to heightened climate policies, latter interacted with post-2011 + controls
- No climate policy premium for FF firms over whole period 1996-2014[2007/2016] => carbon bubble
- Premium arises after 2012: hints at nascent market discipline (+23bp tbc average spread of 230bp)

# The issue of stranded assets

## THE UNBURNABLE CARBON CONCEPT

How much carbon can still be burnt by the fossil fuel industry?



## Comments

- Important issue (warning required), little evidence so far, neat empirical exercise, findings suggest late wake-up of financial institutions in face of ticking climate bomb
- Difficult to comment on a paper selling *negative* results ! 😊
- Nevertheless, the authors could:
  - Improve statistical description of data
  - Better highlight economic significance
  - Conclude with possible policy recommendations

## ***Comments: data description***

- Who are FF firms?
  - List them, country where headquartered, type of business (oil, gas, coal)? How do they compare with others? Test of balanced covariates across firm groupings?
  - Loan DB coverage of various industrial sectors through time? Any attrition of FF firms in loan database over last two decades? = is some credit rationing at play?
- Climate policy indicators
  - How do they relate to each others? Plot time series of cross-country (rank) correlations
  - Mix of policy constraints and outcomes => prefer less noisy measures? E.g., OECD's Environmental Policy Stringency index (EPS). Cf. for instance Albrizio, Kozluk, Zipperer (2014)

## Comments: results and discussion

- Some minor technical issues:
  - Climate policy exposure ( $ft$ ): omitted in tables due to collinearity with FF dummy ( $f$ )?
  - Clustered SD: triple dimension ambitious, but beware that lowest dimension binds here (small # of years or banks here) => correction possibly not effective
- Discussion of results:
  - Better highlight economic consequences of findings: compute estimate of subsidy (in dollars) received by FF firms due to absence of climate premium before 2012. Impact on net income?
  - Is a 20bp premium fair enough?
- Policy implications: Climate policies not credible enough? Banks lacking incentives? Should carbon-intensive assets be penalized by bank regulation (e.g., higher capital weights)?