Stranded in the ICE: Bank Lending and the Transition to Electric Vehicles

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Durham-Bristol Banking Policy Forum

October 2024

Banks and transition into green economy

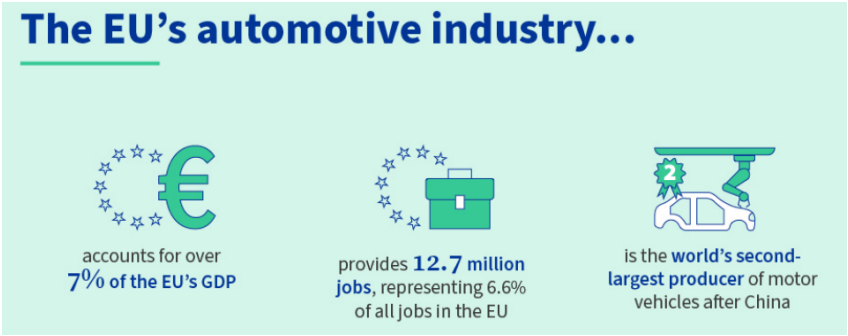
Two crucial questions

1. How should we make our economy greener?
2. What would the role that banks play as we make our economy greener?

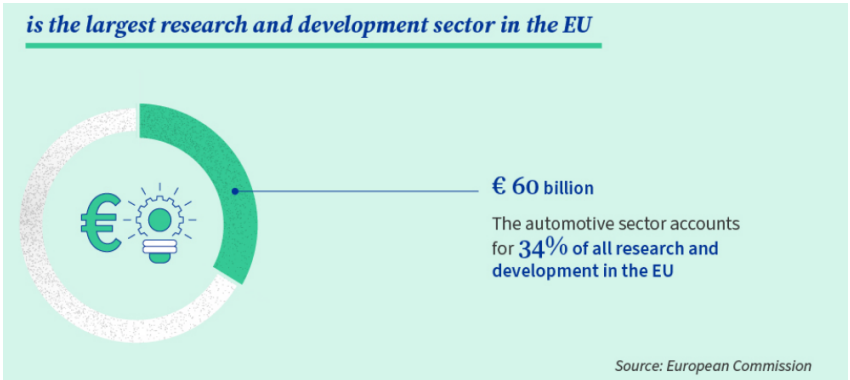
This paper

- Fit for 55: proposals aiming at reducing net GHG emissions in EU at least 55% by 2030.
- By 2035, a 100% of new vehicles must be zero-emission
- Bank-firm credit, firm balance sheet, export data
- ICE exporters have lower credit amounts and tighter loan terms. The effect is stronger if the bank is committed to green lending.

This policy change is relevant for the EU



Especially for R&D!



Wide Implications

Excellent setting!

→ The paper offers an interpretation wider than what ICE-ban suggests!

→ It can provide new insights for the broad questions!

1. How should we make our economy greener?
   - Do we want the brown firms to exit?
   - Do we want the brown firms to transition into green?
   - How should we support green firms? Existing green firms and the new ones?
     → In a frictionless world, these shouldn't matter. Yet, there are frictions.
   - Currently, the paper considers the brown (ICE) firms that exist before the shock
     → Have ICE&EV firms changed their investments and R&D?
     → Have ICE firms started to export non-ICE-related products?
     → Do you observe new firms entering into EV-related production?

Wide Implications

2. What would the role that banks play as we make our economy greener?
   - Would they fund the investments necessary to make the transition possible?
   - Would they be cautious and hinder the transition?

- You have ICE firms that have non-ICE-related production.
  → I'd focus on these firms to assess whether they increase their investment and whether banks increase their loan supply to them. Committed banks should help them! If not, what is the underlying friction?
- What about loan outcomes of EV firms? This shock may increase their loan demand.
  → How do banks react to that? Do the increase in loan supply to EV firms cover for the decline in supply to ICE firms? Do they charge higher rates? Do higher rates lower the pace of the transition?

Loan outcomes

- The current writing leans toward a loan supply story
  → Compare committed vs non-committed banks within a borrower
- Committed banks: Using borrower×time FEs may not control for loan demand in this setting
  → The main assumption is that the borrower's loan demand is homogenous across its lenders
  → However, this assumption is less likely to be satisfied here
  → ICE firms may particularly lower their demand to the committed banks, anticipating lower loan supply

Minor Comments

- Considering ICE-EV firms are identified by their exports, would selling products to Fiat be a problem? Is there a way to assess firms that produce only to the domestic buyers?
- This policy change somewhat coincides with the supply shortage in the EV production, suggesting an underestimation.
- You can consider past lending by the banks to run additional bank-level heterogeneity tests
- Can you check whether ICE firms shift their exports to non-EU areas?
- The sample period may be too short for loan defaults. But, a follow-up analysis would be very beneficial for the policymakers.