Financial Shocks and Productivity

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Finance and Productivity

- Productivity growth should be related to the efficiency with which the financial system performs the evaluation, monitoring, certification, communication and distribution functions, and the legal and regulatory framework assuring performance (Rajan and Zingales, 1998).
  - What is the effect of regulatory policies and crisis intervention on the incentives of banks to perform these functions?
- Generally, more finance is better (King and Levine, 1998)
  - However, there may be decreasing returns to the scale of the financial system (Pagano and Pica, 2012; Cecchetti and Kharroubi, 2012)

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My focus

- What are the effects of financial disruptions on firm productivity?
  - Role of resolution mechanisms
  - Public guarantees
  - Labor market frictions
- Policy implications

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Credit market disruptions: short run

- We know a lot about the effects of credit market disruptions on firms **in the short run**
  - Adverse effects on investment (Almeida et al., 2011), employment (Chodorow-Reich, 2014), sales (Acharya et al., 2016), profits (Chava and Purnanandam, 2011), overall firm activity (Cingano et al., 2016).
- But what about the effect of credit disruptions on firm productivity **in the long run?**
  - Are there persistent effects at all?
  - What would be the mechanism of how financial disruptions affect the long-run productivity path?
  - Does the „type" of government intervention matter (i.e. bail-outs, forebearance etc.)

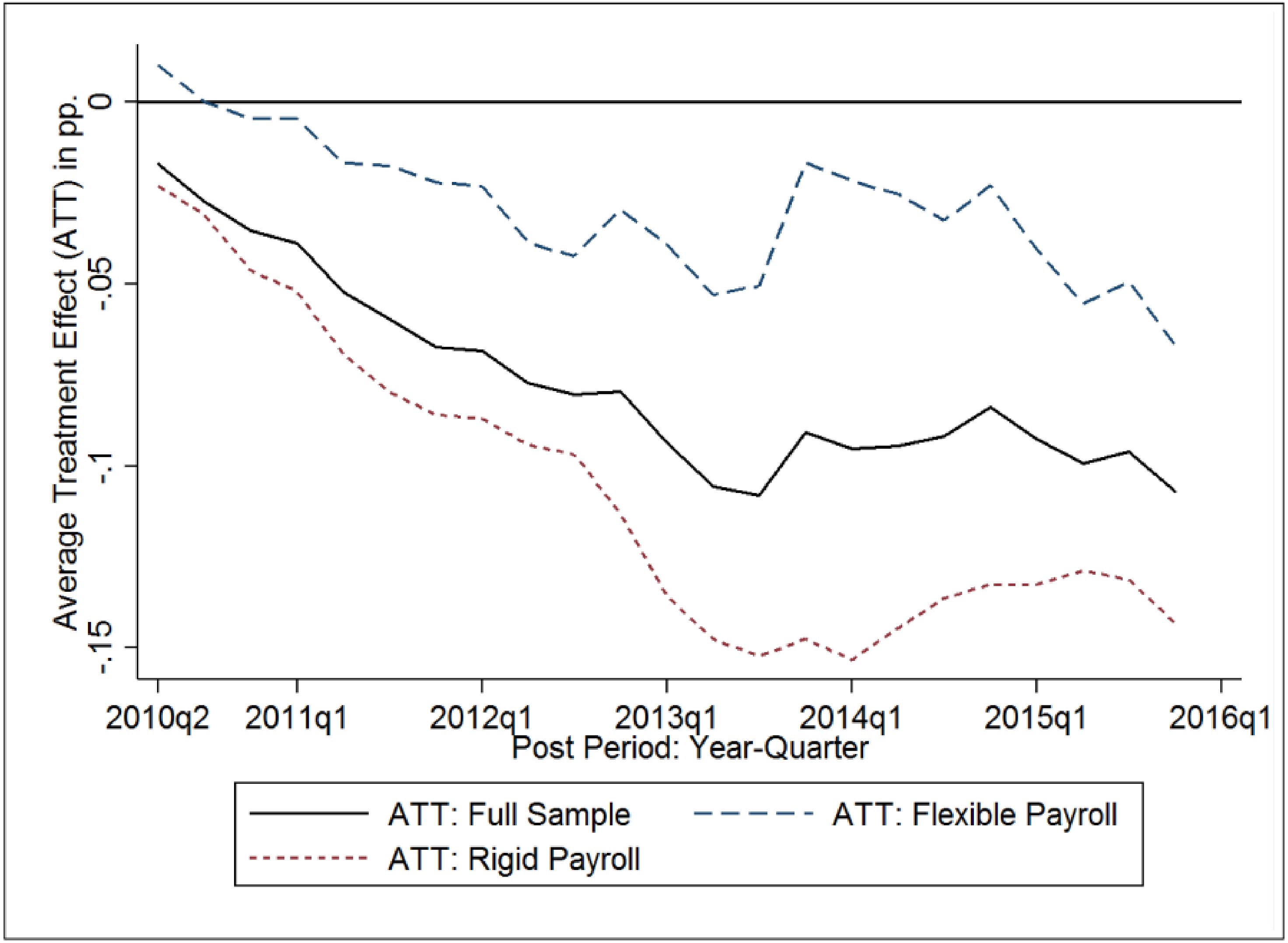

Figure 9. Average Treatment Effect on the Treated (ATT) on PPE Asset Growth Over Time. Full sample vs. Rigid Payroll vs. Flexible Payroll

Source: Wix (2017)

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Credit market disruptions: long run effects

- The long-run effect of credit market disruptions on capital depend on labor market regulation and wage flexibility
- The speed with which countries emerge from credit market disruptions depends upon labor market rigidities
- Downward wage inflexibility may be partially to blame for the sluggish European recovery after the financial crisis (among other things…)

Cleansing effect of financial crises

- How do financial disruptions affect long term productivity?
  - Recessions are times of low opportunity cost of time and resources and hence, are times of more productivity-enhancing reallocations (Foster, Grim, and Haltiwanger, 2016)
  - Recessions may slow down productivity growth by intensifying credit frictions. One important aspect of such credit frictions is the case of legacy assets in the banking sector (e.g. Caballero, Hoshi and Kashyap, 2008).
- Does it matter how the authorities deal with the credit disruption?
  - Is there a trade-off between the short run and the long run effects of financial crises?

Cleansing effect of financial crises

- Marginal banks (close to the minimum capital requirement) are hesitant to realize losses
- Instead of realizing losses, they evergreen the firms that are unproductive and unprofitable, in the hope that these firms recover at some point in the future.
- The unproductive firms stay in the market, depress productivity
- This distorts competition: given that loans to such firms are essentially a subsidy to an inefficient firm, new more efficient firms have a harder time entering the market or increasing market share. This channel further reduces productivity.
- A financial crisis "cleans" the economy of inefficient banks and firms (Caballero et al., 2008, Gropp et al., 2017)

Cleansing effect of financial crises

- Gropp, Rocholl and Saadi (2017) compare U.S. MSAs where forbearance was high (banks were, given their quality, less likely to be closed) to those MSA where forbearance was low.
- Higher regulatory forbearance to close banks during the crisis is associated with **larger output losses during the crisis**
- But: Higher regulatory forbearance is associated **negatively with post-crisis output and productivity growth**
  - Tough policy during the crisis yields higher job creation rates, higher wages, higher patent growth, higher new entry of firms 6 years later
- Suggests that a tough stance in a crisis may have benefits later

Policy implications

- Should we consider **long run implications** for productivity when **designing crisis intervention tools**?
  - Banking union
  - Deposit insurance
  - Regulation and supervision
- The political economy is negative here: **short run loss for a long term gain**
  - Tie policy makers hands? Time inconsistency problem in financial crisis: in the short run it is always better to bail out
- Gropp, Güttler and Saadi (2017) show that bail out expectations per se may reduce allocative efficiency outside of a crisis.
  - In efficient firms are more likely to obtain credit when bail-out expectations of banks are high

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Some thoughts on policy implications

- **Labor market regulation**
  - Flexible labor markets aide the efficient allocation of resources and, hence, foster productivity
  - In addition: May have an effect on the ability of the economy to **withstand adverse financial shocks**
  - In particular: wage rigidity reduces the chances of firms to emerge quickly from a financial crisis
  - **Trade off between short run effects on productivity and long run effects**
- What should we do to foster **equity funding and start ups**?
  - More or less government involvement?
  - Pension system reform?
  - Insurance regulation?