Discussion: "Can bank supervisors kill zombie lending?"

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Zombies: why are they important?

- Not mentioned in the literature prior to Japan's crisis (early 1990s)
- The opposite effect makes the backbone of the literature
  - fire sales, premature liquidations etc.
- H1: there is a structural break
  - candidate causes: QE, BIS regulations
- H2: we missed the effect beforehand
  - the "standard model" of financial crisis is miss-specified
  - we failed to identify an important friction

Bonfim et. al. tend towards H2

- There is "a dark side of evergreening"
  - zombies need to be "killed"
  - focus: how can central banks do it
- What about H1?
  - zombies are unintended consequence of BIS and QE
  - within the standard model of financial crisis
  - BIS regulations and QE might need to be modifies
  - blind "killing" may not be the best way to accelerate restructuring
    - perhaps even have bad consequences of its own

Some background

- Portugal: 2005-2015
  - banking relationships
    - term loans and credit lines
  - observed at quarterly frequency
- 22% of loans are to insolvent borrowers
  - before/after 2009? by value (82% of sample is micro firms)?
- Banks: ROA is 7%, capital ratio: 12%
  - returns: with/write-offs? BIS requirements: binding?

Dependent variable: "new loans"

- "New loan=1 if the firm obtains additional credit from the same lender; = 0 otherwise."
- Sample mean: 21%
- Example:
  - a €100 debt of a zombie with a liquidation value of zero is rolled over at 2%
    - is it really a new loan
    - or just deferred liquidation
    - by itself, with no real loss to the economy
    - a €2 fictitious asset is created, to be canceled
- A better metrics of a genuine zombie lending should be used
  - a reallocation of capital from a viable company to a dead one

Terminating a relationship (i)

- Suppose €100 of debt is terminated
  - at that point, losses need to be accounted for
  - bank's capital falls by is €$100 \times (1 -$ recovey rate$_t$)
  - if the BIS constraint is binding, say at 12% an amount

$$€100 \times (1 - \text{recovey rate}_t)\frac{1}{0.12}$$

    of "good debt" will have to be called back

- What is the recovery rate, following termination, in this sample?

Terminating a relationship (ii)

- Dynamic considerations: when to terminate?
  - cost of rolling-over insolvent debt
    - interest rate (shut down by QE)
    - depreciation, cost of keeping the the company alive
  - benefits of rolling over insolvent debt
    - fire-sale prices may recover
  - *Hypothesis: with zero interest rates and non-cyclical BIS ratios (i.e. the world post 1990)*
    - *short-term zombie "lending" (i.e. gradual termination) might be second-best profit maximizing*
    - *a way to introduce pro-cyclicality to bank capital*

Evidence: Table 4

weak-bank x Zombie firm	0.013
weak bank	0.007
Zombie firm	-0.061

- Zombie firms are 6.1% less likely to be "renewed" (per quarter!) than other firms
  - (remember: sample mean renewal rate is only 21%)
  - consistent with "my hypothesis," particularly if
    - the above factors operate in the "right way"
    - plus: seniority, security, quality of collateral, prospect of recovery
- In weak banks the "not renew" is lower, only 4.8%
  - because they have a larger backlog to clear

Evidence against "my hypothesis"

- Table 6: in accommodation and food services
  - where no inspection was carried out
  - no evidence of lower renewal rate for zombies is found
- Even so: how do the regulators induce banks to terminate relationships
  - is it by forcing them to write down losses
    - following which, Zombie lending no longer makes sense
    - in line with "my hypothesis"

The "big" policy question

- One way or another, the regulators must have a way to terminate banking relationships
- If so, is the policy objective achieved?
  - that is, is capital redirected from zombies to growth companies
- "My hypothesis" implies that following termination of zombie relationships
  - credit to "good borrowers" can actually fall
  - can that prediction be rejected?

Concluding remark (i)

- Fundamental question
  - is there a "zombie problem"
    - an additional friction that theory failed to account for
  - or just unintended consequences of central-bank policies
- Worse: central banks have inconsistent policy objectives
  - on the one hand: slow down fire sales
  - on the other hand: high speed restructuring and reallocation of credit

Concluding remark (ii)

- This is a very interesting data set and a very important question
  - that goes to the core of the financial-stability analysis
- An obvious extension: experiment with other events
  - e.g. the effect of Draghi's "whatever it takes" on the speed of restructuring

More technical points

- There are millions of loans, but only a few banks; how informative is cross-bank variability (particularly in Table 3)?
  - how come "clustering" is not mentioned?
- There must be a more careful treatment of term loans and credit lines
  - a quarter when a term loan is not up for renewal is irrelevan for "new credit"
  - Table A1 repeats excludes credit lines; how come N stays the same?