Breaking the Shackles: Zombie Firms,Weak Banks and Depressed Restructuring in Europe

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Discussion by Enrique Moral-Benito

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The Paper Very Briefly

The authors highlight four results:

- **Finding # 1**: Attachment between zombie firms and weak banks...
- **Finding # 2**: ... weaker in countries with better insolvency regimes.
- **Finding # 3**: Zombie firms hamper the growth of productive firms...
- **Finding # 4**: ... due to credit unavailability.

Comment # 0: What is really new?

- **Concern**: Some results are already discussed elsewhere.
- The role of zombie firms in capital misallocation — Adalet McGowan et al 2017c.
- The importance of insolvency regimes for misallocation — Adalet McGowan et al 2017b.
- In my opinion, the key novelty is that the present paper brings banks into the scene.
- **Suggestion**: Focus the paper's contribution around the role of banks.

Comment # 1: Interpretation of Finding # 1

Regression # 1

- **Concern**: The negative correlation between zombie firms and banks' health may be telling us a different history.
- In addition of being endogenous to firm health...
- ... I think bank health can be interpreted as a proxy of credit supply.
- If so, a positive credit supply reduces the probability of being a zombie firm.
- This is not a genuine bad firm - bad bank attachment.
- **Suggestion**: Control for debt/credit increases at the firm level.

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- **Suggestion**: Control for debt/credit increases at the firm level.
- **Concern**: It may also be a bad proxy for large (diversified) firms.
- **Suggestion**: Check only single bank firms.

Comment # 2: Country heterogeneity in Finding # 2

Regression # 2

- **Concern**: Pooling all country samples conceal crucial country heterogeneity. Different countries in different exercises is misleading.
- My interpretation of finding # 2 is that the extent of zombie attachment is country-specific.
- Indeed, I tend to think that all effects estimated in the paper may well be country-specific.
- Reporting average effects across countries may mask important (and informative) heterogeneity.
- Also, according to estimates in col (1) Table 5 and Figure 2, there are many countries for which there is no attachment $(\alpha_1 + \alpha_2 \times INSOL_c = 0)$!
- **Suggestion**: Show country-by-country regressions in all exercises.

Comment # 3: Interpretation of Finding # 3

Regression # 3

- **Concern**: Is Finding # 3 evidence of misallocation?
- I can think of alternative interpretations of finding # 3.
- In sectors with higher credit supply (bank health) large/productive firms invest more.
- In sectors with higher capital deepening (zombie capital) small/unproductive firms invest more due to convergence.
- **Suggestion 1**: Use standard misallocation measures (OP, HK) and relate them to country-sector-year bank health and zombie capital.
- **Suggestion 2**: Use increase in firm capital shares rather than capital growth per se.

Comment # 4: Endogeneity in Finding # 4

Regression # 4

- **Concern**: Self-reported measures of credit constraints may be endogenous to firm health.
- My impression is that this regression cannot be interpreted as a channel explaining misallocation.
- The association between zombie capital and credit availability may be the result of very different mechanisms.
- **Suggestion**: Analogous to Finding # 3, include banks health and TFP interactions in this regression.

Regression # 1

$$\begin{aligned} zombie_{isc,t} &= \alpha_0 + \alpha_1 BankHealth_{isc,t-2} \\ &+ X_{isc,t-2}\Theta + \gamma_{sc,t} + \epsilon_{isc,t} \end{aligned}$$

Finding # 1:

$$\alpha_1 < 0$$

Regression # 2

$$
\begin{aligned}
zombie_{isc,t} &= \alpha_0 + \alpha_1 BankHealth_{isc,t-2} \\
&+ \alpha_2 BankHealth_{isc,t-2} \times INSOL_c \\
&+ X_{isc,t-2}\Theta + \gamma_{sc,t} + \epsilon_{isc,t}
\end{aligned}
$$

Finding # 2:

$$
\begin{aligned}
\alpha_1 &< 0 \\
\alpha_2 &> 0
\end{aligned}
$$

Regression # 3

$$
\begin{aligned}
\Delta \ln K_{isc,t} &= \beta_0 + \beta_1 MFP_{isc,t-1} \\
&+ \beta_2 MFP_{isc,t-1} \times BankHealth_{sc,t-1} \\
&+ \beta_3 MFP_{isc,t-1} \times ZombieCapital_{sc,t-1} \\
&+ X_{isc,t-2}\Theta + \gamma_{sc,t} + \epsilon_{isc,t}
\end{aligned}
$$

Finding # 3:

$$
\begin{aligned}
\beta_1 &> 0 \\
\beta_2 &> 0 \\
\beta_3 &< 0
\end{aligned}
$$

Regression # 4

$$\begin{aligned} CreditAvailability_{isc,t} &= \delta_0 + \delta_1 ZombieCapital_{sc,t-1} \\ &+ X_{isc,t-2}\Theta + \gamma_{sc,t} + \epsilon_{isc,t} \end{aligned}$$

Finding # 4:

$$\delta_1 < 0$$