The Origins of Italian NPLs

by Paolo Angelini, Marcello Bofondi, and Luigi Zingales

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[Views reflected are my own]

Summary & Research Question

- Why did NPLs grow so much in Italy?
  - Was the increase simply caused by the macroeconomic downturn?
  - Are there problems specific to Italy (and especially Italy‘s banks)?
- The paper tracks *the flow of NPLs* over time and across banks
- Compares current Italian crisis to
  - Previous Italian crises
  - Current crisis in other countries
- Decomposes banks‘ NPLs into
  - Exogenous component
  - Risk Attitude
  - Bank Residual (and in turn relates this to bank characteristics)

Results – Aggregate Evidence

- Adjusting for the severity of the crisis, the flow of NPLs is not significantly different from that of previous crises in Italy, especially compared to the 1992 – 1997 crisis

- Comparing Italy to other countries that suffered a significant drop in real GDP or nominal house prices in the same crisis period, the NPLs of Italy are significantly higher compared to other countries

Results – Micro Evidence

- Ex-ante lending policy:

  - Of the outstanding loans in 2007, 28% were to ``sound“ borrowers (annual default rate of 5.6%) → banks would not have been able to have a default rate lower than this

  - 29% of loans were classified as risky (annual default rate 19.4%)

  - The paper/presentation is right to focus more on the 2008-10 window, after which outcomes are highly endogenous to bank and policy choices

Results – Micro Evidence

- Determinants of ex-post defaults
  - Decompose defaults into three components:

$$\sum_{a,z} w_{b,a,z} Def_{b,a,z} - Def_{\bullet,\bullet,\bullet} \equiv \sum_{a,z} \underbrace{w_{b,a,z}[Def_{\bullet,a,\bullet} - Def_{\bullet,\bullet,\bullet}]}_{\text{“Exogenous”}} + \sum_{a,z} \underbrace{w_{b,a,z}[Def_{\bullet,a,z} - Def_{\bullet,a,\bullet}]}_{\text{“Risk Attitude”}} + \sum_{a,z} \underbrace{w_{b,a,z}[Def_{b,a,z} - Def_{\bullet,a,z}]}_{\text{“Bank Residual”}}$$

  - Variation in exogenous (component 1) and risk taking (component 2) have little explanatory power
  - Most variation from ``bank residual“ component; suggests less defaults for:
    - Better capitalized banks
    - Banks with higher ROE
    - Banks without sanctions by the Bank of Italy
    - Banks where management is not refereed to judicial authority for prosecution

I.``Bad luck component“

- Is the ``exogenous“ component really something banks have no control over?
- For small banks, regional (and thereby potentially sectoral) exposure is fixed
- Larger banks have more discretion over their lending choices, especially with respect to the sector and geographical area
- **Suggestion:** Run the analysis separately for banks that only operate in small geographical area vs banks that operate nationally or at least in multiple regions
- For larger banks, assumption of ``exogeneity“ probably less plausible?

II. NPLs caused by zombie lending?

- A loan has to be recognized as non-performing – what are the rules?
- Even a loan‘s missing of payment is in bank‘s control – extend loan?

January 8, 2013 7:29 pm

Companies: The rise of the zombie

November 25, 2015 1:38 pm

Free Lunch: Europe slowly dezombifies its banks

- Source: Financial Times

- Increasing evidence of zombie lending in Europe (similar to Japan in the 1990s)

Rollovers: Kicking the can down the road!

- How are rollovers treated (e.g., amendment to interest rate, extension of maturity)? Are they considered as new loans?
- When do you measure quality for a loan that is rolled over? At the time the loan was granted or at the time it was rolled over?
- A new loan to a firm whose loan is maturing, even if the two are not connected, may really be related transactions within the relationship
- If a bank simply grants the loan and takes no further action, default of ex-ante high quality borrowers can be considered ``bad luck“
- However, borrower quality might have deteriorated from time of loan granting until potential rollover decision
- If bank takes active decision to roll over loan, ex-post default is not due to ``bad luck“ – postpone default temporarily, clustering them in due course
    - Default rates in 2011-13 seem rather low (16%), and jump massively in 2014-16 (34%).

Is there evidence of zombie lending?

- As argued by Caballero, Hoshi, Kashyap (2008) and Giannetti and Simonov (2013), significant evergreening (``zombie lending“) took place in the Japanese crisis in the 90‘s as loans were rolled over at very favorable interest rates

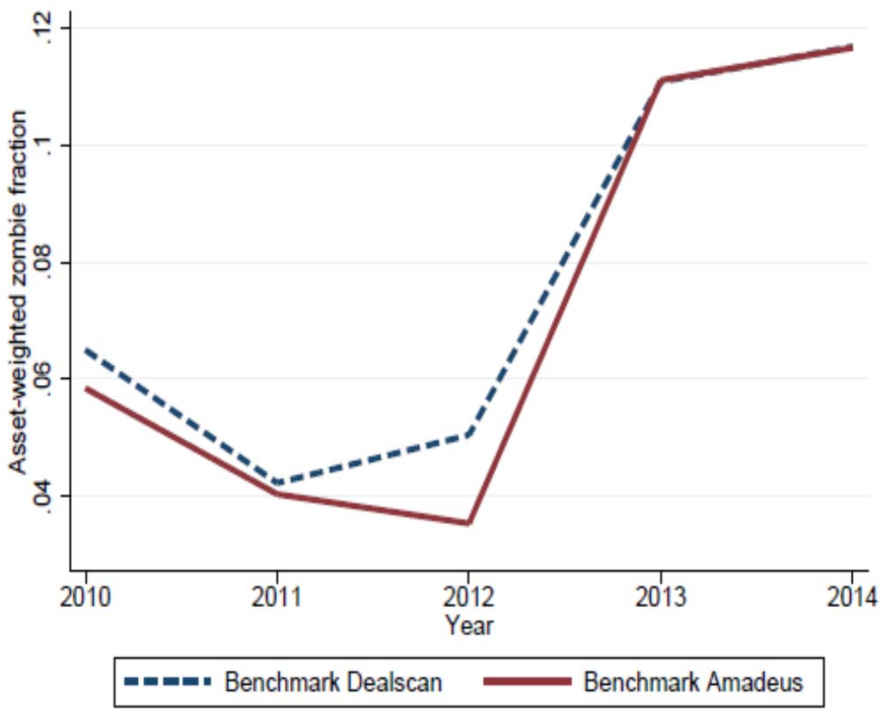
- My research in Acharya, Eisert, Eufinger, Hirsch (2017) suggests that this happened in Italy too, especially post OMT announcement

- It seems useful to think of Origins of the Italian NPLs, but the more interesting question is whether ``lost decade“ was avoidable

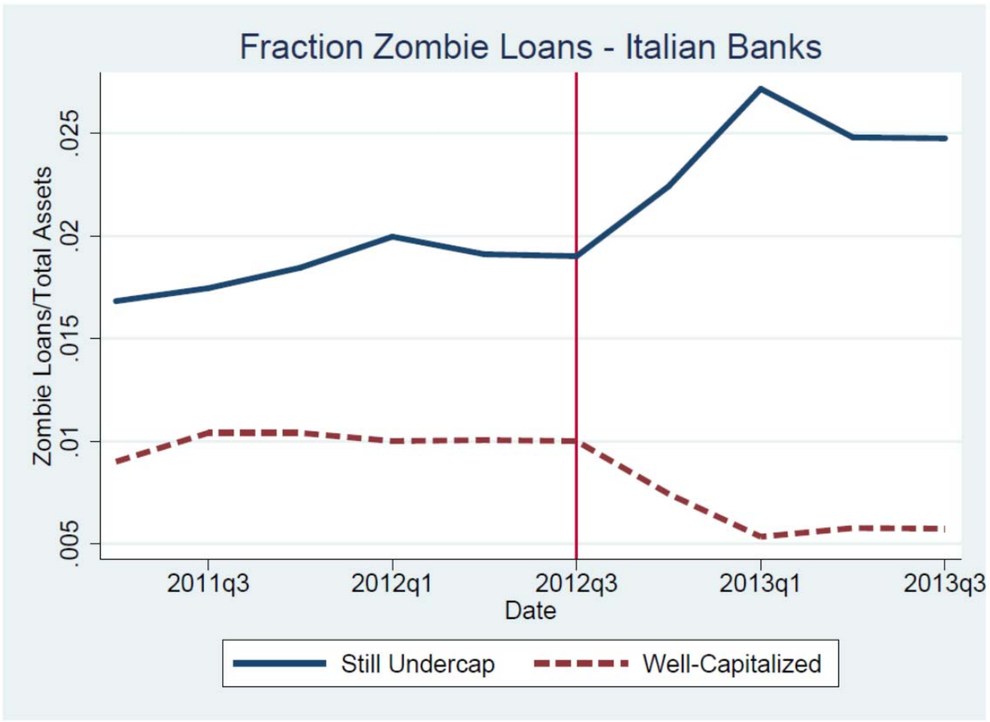
Zombie Firms - Example: Feltrinelli

- Feltrinelli is a private Italian publishing company and operates bookstores throughout Italy
- Came under severe stress during the sovereign crisis
- La Repubblica wrote in 2013: "Feltrinelli announces solidarity contracts for 1,370 employees, for a period of one year. [...] this will allow to save up to 216,000 working hours. 2012 was a particularly difficult year [...] The company has recorded a contraction of net sales by 11% over the last two years. And 2013 is going to be just as critical."
- Receives a new loan from UniCredit and Intesa Sanpaolo after OMT, when its interest coverage ratio was -1.1
- The interest rate on its debt for 2015 was 1.3%, the corresponding benchmark rate was 1.4%
- The interest rate on its debt at time of pre OMT loan was 4.7% when benchmark rate was 2.0%

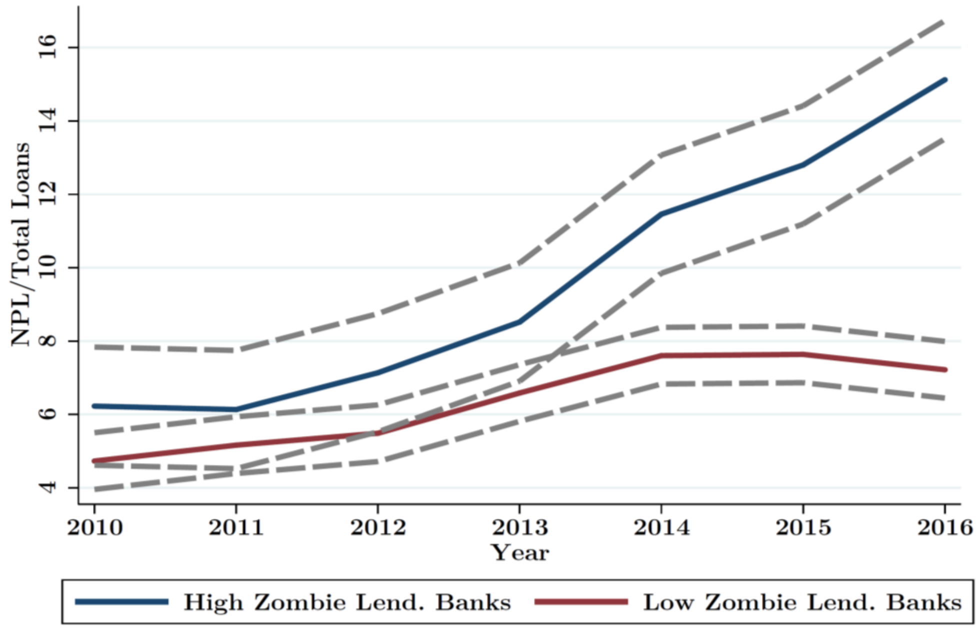
Zombie lending picked up after OMT



Source: Acharya, Eisert, Eufinger, Hirsch (2017)



NPL evolution and bank health



- Source: Acharya, Eisert, Eufinger, Hirsch (2017)
- European banks that engaged in zombie lending (**mainly weakly-captalized banks**) in the syndicated loan market following the ECB‘s unconventional monetary policy have significantly higher shares of NPLs

Zombie lending hurts the economy

"The concern is that these companies - which spend so much of their cash servicing interest payments that they are unable to invest in new equipment or future growth areas - could be at least partly to blame for the weak recovery in Europe, hogging resources that could go to more productive areas"
(Financial Times: Companies: The Rise of the Zombie, January 8th, 2013)

Panel A: Investment				
Industry	Avg. Investment (% of Capital)	ΔFraction Zombie	Investment Loss (% of Capital)	Investment Years lost
Construction	9.58%	17.00pp	23.8%	2.5
Manufacturing	12.3%	5.40pp	7.6%	0.6
Trade	10.6%	12.29pp	17.2%	1.6
Service	12.5%	13.62pp	19.1%	1.5
Other	8.9%	3.82pp	5.4%	0.6

III. Sectoral concentration – an explanation for NPLs?

- Is sectoral concentration of bank lending increasing?
- Do banks grant more loans to struggling industries during the crisis compared to before?
  - Does it depend on their ex-ante share of loans in that industry?
  - Does it depend on bank quality?
- Giannetti and Saidi (2017) provide evidence that lenders with a large share of loans outstanding in an industry are more likely to provide liquidity to industries in distress
- Lenders' decisions to provide liquidity are affected by the extent to which they internalize any spillover effects of negative shocks
- Are loans granted primarily to new or existing borrowers?

Conclusion

- What is extraordinary is how long the bank NPLs have taken to be recognized and resolved – the timing of NPL recognition is a dynamic active choice of banks and regulators
- NPLs in absolute are less important than NPLs relative to economic (not regulatory) capital
- Minor suggestions:
  - Compare Z-score to Default rate mapping in this decade to 90‘s
  - Compare ever-greening in this decade to 90‘s (explains the prediction gap?)
- Italy might benefit from an **<u>efficient bankruptcy code</u>** – is that in works? Authors should help the country design one!