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# WHY CLOSING FAILED BANKS HELPS THE REAL ECONOMY

# 1. HOW DISTORTED INCENTIVES AROUND BANK INSOLVENCY HARM THE REAL ECONOMY

It is widely agreed that banks play a growth-enhancing role for the real economy. However, distorted incentives around bank insolvency may corrupt banks' credit allocation and monitoring – ultimately leading to suboptimal real economic performance. Theoretical research and empirical evidence provides some examples:

- Individual moral hazard ex ante (i.e. before insolvency): Since their failure has strong negative externalities, banks anticipate bailout. This can lead to excessive risk or complexity taking, unsound balance sheet blow-up, or insufficient screening and monitoring of the lending business, resulting in suboptimal credit allocation.<sup>1</sup>
- Individual moral hazard ex post (i.e. close to insolvency): Severely undercapitalized institutions can be seen as an option that creates value in volatility. Hence, incentives grow to further substitute risk for economic soundness or even to 'gamble for resurrection'. Distressed banks might also discontinue effective credit monitoring and roll over non-performing loans ('evergreening'), or even channel funds to related firms at favourable terms.<sup>2</sup>

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<sup>&</sup>lt;sup>1</sup> Compare, e.g., Beltratti and Stulz (2009); Dell'Ariccia and Marquez (2006); DeYoung et al. (2013); Fortin et al. (2010).

<sup>&</sup>lt;sup>2</sup> Compare, e.g., Caballero et al. (2008); Igan and Tamirisa (2008); La Porta et al. (2003); Peek and Rosengren (2005).

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Collective moral hazard: The time-inconsistency of bank closure decisions can lead to incentives for banks to herd into the same asset classes in an effort to be 'too-many-too-fail', effectively increasing systemic risk and distorting efficient credit allocation. Also, banks might collude to delay the recognition of bad loans and disclose them simultaneously to avoid individual blame.<sup>3</sup>

The outcomes of such distorted incentives are suboptimal credit allocation and monitoring – which is felt in the real economy: Not the projects and firms that need (and deserve) credit most on grounds of economic viability and profitability, but those that have particular risk- or asset-profiles are now favored by incentive-corrupted financial intermediaries.

## 2. WHY BANK FAILURE REGULATION FAILS

What is the usual regulatory answer to bank failure? All too often, bailout policies that aim at sustaining the financial intermediary more or less in its current form are the tool of choice. However, these bailout policies have been shown to amplify moral hazard and incentive distortions, consequently contributing to the suboptimal outcomes outlined before (Black and Hazelwood, 2012; Dam and Koetter, 2012; Dell'Ariccia et al., 2008; Giannetti and Simonov, 2011; Honohan and Klingebiel, 2003). This can be attributed to decision problems or incentive distortions gripping the regulators themselves: Even if regulators wanted to maximize welfare by counteracting distorted incentives, a commitment problem prevents them from doing so, as they have to trade-off preserving short-run financial stability (advocating for bailout) and preventing long-run moral hazard and distorted credit allocation (advocating for closure). On the other hand, in a political economy understanding regulators might also maximize their own utility functions, e.g. obscuring their own ineptitude, extracting rents from colluding with the industry, or forbearing closure decisions due to political reasons (Acharya and Yorulmazer, 2007, 2008; Brown and Dinc, 2005; DeYoung et al., 2013; Imai, 2009; Kane, 1990; Mailath and Mester, 1994).

## **3. HOW SCHUMPETER CAN BE APPLIED TO FAILED BANKS**

Unlike the unimodal practice might suggest, other policy options are available in the toolkit of banking regulation, such as insolvency resolution regimes characterized by the end of existence of the financial intermediary as a separate legal entity, including equity wipeout and ousting of the management. These

<sup>&</sup>lt;sup>3</sup> Compare, e.g., Acharya (2009); Acharya and Yorulmazer (2007); Brown and Dinç (2011); Kasa and Spiegel (2008); Rajan (1994); Stever and Wilcox (2007).

regimes particularly focus on purchase and assumption or closure and liquidation of failed banks.

Contrary to bailout policies, these insolvency resolution regimes can be thought of as a process of purgation, or 'catharsis', which realigns distorted incentives surrounding bank failure. Resolving failed banks in a rules-based and prompt way cleans out existing moral hazard and improves the functioning of the banking system, e.g. efficient credit allocation and effective monitoring. Ultimately, this should have positive effects on real economic performance. Put differently, this is another manifestation of Schumpeter's concept of creative destruction: Insolvency and resolution regimes promote an efficient reallocation of resources and thus function as a cleansing effect to financial intermediation that ultimately improves real economic performance. We could call this a form of catharsis in the banking system.

Translating the Schumpeterian idea into applicable policy recommendations yields strict closure and liquidation policies that offer little room for regulatory discretion if intended to be effective (Kane, 2002). This concept materializes in tools such as a non-discretionary positive capital closure rule that stipulates prompt legal closure as soon as an institution undershoots a (positive) threshold capital ratio. Can the application of such a rule get the catharsis mechanism to work and improve outcomes in the real economy?

# 4. HOW STRICTER BANK INSOLVENCY RESOLUTION BENEFITS THE REAL ECONOMY (AND HOW WE CAN TRACE IT)

To cut it short: Yes, we find a stronger application of strict resolution regimes to ultimately improve real economic performance. However, the empirical test needs to overcome two main challenges. First, there is a measurement problem: How to measure the strength of resolution policy? Second, there is an identification problem: While we can easily detect a correlation between the characteristics of the financial system and growth, establishing a causal link is somewhat harder due to the endogenous relationship between the two.

Regarding measurement, we propose the 'catharsis indicator', defined as the ratio of total failed bank assets that have been resolved by closure policies and total bank assets that should have been resolved had a positive capital closure rule been in place. A more detailed discussion of the indicator and its shortcomings is presented in Korte (2013), but it follows a clear intuition: The catharsis indicator essentially captures the idea of how strictly the positive capital closure rule is applied. Figure 1 displays the average logged growth rate of nearly 2 million real firm-year observations over quartiles of the non-zero catharsis indicator computed for more than 30 European countries over 7 years. The message is intriguing:

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Firms experienced higher growth rates in countries and years in which bank resolution followed the hypothetical capital closure rule more closely.



Figure 1. Average revenue growth by catharsis indicator quartile

Admittedly, this should not be interpreted as causal inference due to multiple sources of endogeneity – taking us to the second challenge: How to deal with the identification problem? In addition to controlling for covariates and fixed effects, and to using insolvency legislations as instrumental variables, we exploit an identifying assumption initially proposed by Rajan and Zingales (1998): Firms that are more dependent on bank financing (due to technological/industry characteristics) should experience stronger growth when the resolution regime for insolvent banks is stronger. Indeed, we find a positive and significant effect of the interaction between the catharsis indicator and firms' bank dependence. Evaluating the economic significance of these results, we find a difference of roughly 0.3–0.6% in the growth rate between a relatively bank dependent firm as compared to a firm with low bank dependence, if located in a country with a relatively strict application of the closure rule rather than in a country without cartharsis rules.

Now, what is the transmission channel between strict insolvency resolution regimes and real growth? In fact, we find a disproportionately positive catharsis effect on higher quality firms as those are the beneficiaries of uncorrupted credit allocation decisions. This 'smoking gun' provided by the firm quality channel should not come as a surprise: It would have been Schumpeter's prediction.

## 5. WHAT REGULATORS SHOULD TAKE AWAY

Our results strongly advocate putting bank insolvency and resolution regimes center stage in discussions towards reforming bank regulation. In the European context, this calls for particular emphasis on the common resolution framework and the Single Resolution Mechanism as a vital part of the European Banking Union. Setting up incentive compatible bank insolvency regimes that facilitate the catharsis effect should be a focus of researchers' endeavours and regulators' travails.

## Abstract

It is widely agreed that banks play a growth-enhancing role for the real economy. However, distorted incentives around bank insolvency may corrupt banks' credit allocation and monitoring – ultimately leading to suboptimal real economic performance. The outcomes of such distorted incentives are suboptimal credit allocation and monitoring – which is felt in the real economy: Not the projects and firms that need (and deserve) credit most on grounds of economic viability and profitability, but those that have particular risk- or asset-profiles are now favored by incentive-corrupted financial intermediaries. The results strongly advocate putting bank insolvency and resolution regimes center stage in discussions towards reforming bank regulation. In the European context, this calls for particular emphasis on the common resolution framework and the Single Resolution Mechanism as a vital part of the European Banking Union.

Key words: Bank insolvency, bank resolution, growth

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