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Bankruptcy law and bank financing[☆]

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ABSTRACT

Exploiting the timing of the 2005–2006 Italian bankruptcy law reforms, we disentangle the effects of reorganization and liquidation in bankruptcy on bank financing and firm investment. A 2005 reform introduces reorganization procedures facilitating loan renegotiation. The 2006 reform subsequently strengthens creditor rights in liquidation. The first reform increases interest rates and reduces investment. The second reform reduces interest rates and spurs investment. Our results highlight the importance of identifying the distinct effects of liquidation and reorganization, as these procedures differently address the tension in bankruptcy law between the continuation of viable businesses and the preservation of repayment incentives.

1. Introduction

Bankruptcy procedures, an important determinant in the development of capital markets, attempt to balance the rights of creditors and debtors (Djankov, Hart, McLiesh, and Shleifer, 2008). A large theoretical literature has studied the relative merits of the two primary bankruptcy procedures: reorganization and firm liquidation. These procedures need to ensure that viable businesses continue, while preserving borrower repayment incentives. Yet, these objectives are often in conflict (Hart, 1995). Therefore, the analysis of the consequences of bankruptcy law for firm financing and investment requires empirical evidence.

The empirical literature in corporate finance has examined how reforms to bankruptcy codes affect firm outcomes.[1] These studies have looked at reforms that either change only the enforcement of bankruptcy rules or alter

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[1] See, for example, Araújo, Ferreira, and Funchal (2012); Assunção, Benmelech, and Silva (2013); Hackbarth, Haselmann, and Schoenherr (2015); Scott and Smith (1986); Vig (2013), and Cerqueiro, Ongena, and Roszbach (forthcoming).

simultaneously both reorganization and liquidation. A prominent example is the US bankruptcy code of 1978, which introduced provisions related to liquidation (Chapter 7) and renegotiation (Chapter 11) at the same time.[2] However, liquidation and reorganization address the conflicting objectives of bankruptcy in different ways. Thus, to understand the workings of bankruptcy law, we need to isolate the effects of each procedure.

This paper disentangles the impacts of reorganization and liquidation on firm credit conditions and investment using data from the 2005–2006 Italian bankruptcy reform law for small and medium-size enterprises (SMEs).

The Italian reform consisted of two distinct and consecutive laws. The first, inspired by US Chapter 11, introduced legal outlets that made the renegotiation of credit contracts easier. Subsequently, the second law significantly speeded up firms' liquidation procedures. This staggered timing allows us to test the distinct effect of reorganization and liquidation on bank financing conditions and firm investment.

The reforms were prompted by the Parmalat scandal, one of the largest corporate scandals in Europe, and, thus, were not driven by trends in SME performance. The 2005 reform of reorganization procedures amends Italy's 1942 bankruptcy system, removing stringent creditor reimbursement requirements that had limited in-court restructuring agreements. The reform also limits claw-back provisions, which had previously allowed judges to nullify out-of-court agreements. After this first reform, in-court reorganization procedures increases from about 2% of total bankruptcy procedures before 2005 to over 10% in 2009. Moreover, the total value of restructured credit in the economy, both in and out of court, increases from 0.5 billion euros before 2005 to one billion euros in 2007.

One year later, in 2006, the legislature reforms Italy's liquidation procedure. Prior to this second reform, liquidation was a poor instrument for protecting creditor interests and preserving the value of the firm's assets. Poor trustee incentives to speed up the process combined with a lack of creditor coordination made liquidations a lengthy affair. The reform strengthens creditors' ability to monitor the trustee as well as improves creditor coordination. Subsequently, the share of liquidation procedures that lasted longer than 24 months decreases from approximately 95% before 2005 to less than 60% after 2005.

We examine the impact of these reforms on financial contracts and investment using a theoretical framework in the spirit of Hart and Moore (1998), whereby a cash-constrained firm needs bank financing to carry out an investment project. The firm deals with multiple creditors. Its cash flows are stochastic and only partially verifiable. In such a context, Gennaioli and Rossi (2013) show that the optimal allocation of control rights results in two classes of debt. One class is concentrated on a leading creditor, or bank, that has exclusive control over the liquidation versus reorganization decision. The other class is dispersed among creditors without control rights. The design of the bank funding contract depends on whether parties renegotiate the liquidation threat, because renegotiation induces the entrepreneur to default strategically.

Based on this framework, we make the following empirical predictions. First, a reform of the reorganization procedures that strengthens borrower rights to renegotiate outstanding financial contracts increases the cost of bank financing and reduces investment. Second, a reform of the liquidation procedures that strengthens creditor rights reduces the cost of bank financing and spurs investment. We also make predictions related to the likelihood of firm exposure to the bankruptcy reforms. First, credit conditions to firms that are more likely to be in distress are more responsive to the design of insolvency proceedings. Second, reforms have a stronger effect in efficient bankruptcy courts. By increasing a firm's verifiable value, more efficient courts facilitate renegotiation of financial contracts.

To empirically test the effects of the reforms on firms' credit conditions and investment, we use a unique loan-level data set collected by the Italian central bank (the banking sector supervisory authority). This data set contains detailed quarterly information on each newly issued loan and credit line, including interest rate, amount, maturity, and collateral. Our sample contains information on 226,422 loan contracts and 100,000 credit lines issued by 94 banks to a total of 35,041 distinct small and medium-size manufacturing firms. We also have access to information on these firms' balance sheets and investment. Importantly, because SMEs in Italy do not have access to public equity or bond markets, bank financing accounts for around 60% of their assets. We therefore capture a significant component of the cost of external capital borne by these firms.

Our main empirical strategy employs a difference-in-differences (DID) framework. We exploit the policy changes by combining them with cross-sectional differences in firms' credit risk. Following the theoretical insights developed above, we compare the credit conditions applied to firms that are perceived to be at low risk of default with those of firms deemed more likely to default. To construct our exposure groups, we rely on information from the external credit rating system for SMEs that is used for risk assessment purposes by all major Italian financial intermediaries.

We find that interest rates on bank financing increase by an average of 12 basis points after the 2005 reorganization reform. This results in an increase of 3%, or 190 million euros per year, in the value of scheduled interest payments from SMEs to banks. The increase in the cost of bank financing leads to tighter credit constraints and reduced investment rates by an average of 2.5%. Taken together, these results suggest that the reorganization reform exacerbates opportunistic behavior among entrepreneurs. The subsequent increase in the cost of bank financing implies that potentially viable projects do not receive funding.

The liquidation reform produces a decrease in the cost of bank financing, which results in a decrease of 2%, or 130 million euros per year, in total interest payments for SMEs in the manufacturing sector. The reform also eases firms' access to credit, leading to 3.2 percentage points decrease, on average, in the likelihood that they report being

[2] Other countries have recently reformed liquidation and reorganization at the same time, including Spain in 2004 and France and Brazil in 2005.