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Lending Relationships and the Collateral Channel

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Swings in collateral prices can generate booms and busts in corporate investment (Chaney, Sraer, and Thesmar, 2012; Bahaj, Foulis, and Pinter, 2017). This *collateral channel* is consistent with theories where collateral mitigates contracting frictions and thus increases firms' borrowing capacity in a procyclical way (Bernanke and Gertler, 1989; Kiyotaki and Moore, 1997).

However, collateral is only one of several potential determinants of credit frictions over the cycle. An extensive corporate finance literature shows that agency problems can be mitigated by intense firm-bank lending relationships. And influential macroeconomic theories stress that credit cycles arise from the *interaction* between fluctuations in collateral values and information issues (Holmstrom and Tirole, 1997).

This paper seeks to reconcile these literatures. Our key question is: do strong lending relationships between banks and corporates and their executives amplify or moderate the link between collateral and investment?

In addition to informing policies aiming to curb credit cycles, this question is motivated by conflicting theoretical clues. Strong lending relationships could mitigate the collateral channel if relationships act as a substitute for collateral - for instance because they both help to overcome informational asymmetries in lending contracts. But strong relationships could accelerate the collateral channel if relationships and collateral are complements - for instance if private information helps lenders to monitor collateral or extract rents from borrowers. Our results provide clear support for the first hypothesis: the longer lending relationships between banks and both corporates and their executives, the slower the ”accelerator” whereby shocks to the value of corporate collateral affect corporate investment dynamics.

To show this, we construct a novel database of UK firms for the 2002-2013 period, which covers the banking relationships of firms, as well as those of their board members and executives.

Our key results are the following. Consistent with Chaney, Sraer, and Thesmar (2012) and Bahaj, Foulis, and Pinter (2017), we find that increasing collateral values are associated with higher corporate investment: a £1 increase in the value of corporate collateral increases investment by around £0.04. But we find that this effect is significantly reduced for firms with longer banking relationships. A firm with a 75th percentile relationship length (15.4 years) increases investment by around 50% less than a firm with a 25th percentile relationship length (4.2 years) when collateral values increase. Overall, this finding is consistent with the notion that lending relationships dampen the effect of collateral value on borrowing constraints, as predicted by models where collateral and private information are substitutes (Holmstrom and Tirole, 1997).