before contracting. Total (market wide) borrowing is limited since the lenders cannot increase the interest rate to ensure that markets clear. They face a lemons problem as in Akerlof (1970): Increasing the interest rate would worsen the pool of creditors who apply for a loan such that lenders would lose money. Hence, they ration overall lending and charge a lower interest rate. More specifically, in Stiglitz and Weiss (1981) borrowers have more information about the payoff volatility of their project. Due to limited liability, lenders lose from lending to applicants with high volatility projects and win from the ones with low volatility. As they increase the interest rate the low volatility borrowers stop applying and the pool of applicants worsens. Stiglitz and Weiss (1981) restrict the contracting space to debt contracts and assume that volatility is not contractable.

Hart and Moore (1994) opened the door for models with incomplete contracts. When payments in certain states of the world are not exactly specified, debtors and financiers will try to renegotiate their obligations in the future to their favor. Anticipating such future behavior makes certain payoff realizations non-pledgable. In other words, ex-ante funding is often limited and as a consequence a "skin the game constraint" has to be imposed. The limited pledgability goes beyond the market-wide phenomenon in Stiglitz and Weiss (1981) as it also restricts one-on-one contract arrangements. One way out of limited pedgability is to change the ex-post bargaining outcome by collateralizing the initial contract. The literature that uses collateral/margin/haircut constraints typically relies on the incomplete contracting approach as its microfoundation. Similarly, the literature on limited enforcement of contracts falls in this category. Papers like Bulow and Rogoff (1989), Kehoe and Levine (1993), Alvarez and Jermann (2000), Cooley, Marimon, and Quadrini (2004) among others come to mind.

Empirically, there is convincing evidence on the existence and pervasiveness of financial constraints. The empirical macro literature on credit channels distinguishes between a bank lending channel and a balance sheet channel depending on whether the financial friction is primarily on the side of the financial intermediary or on the side of the borrowing firm or household. Bernanke (1983) studied the lending channel using data from the great depression. Slovin, Sushka, and Polonchek (1993) find that borrowers whose main banking relationship was with infamous Continental Illinois that failed in 1984 earned negative abnormal returns before the (unexpected) government bailout and turned positive on the day before and on the announcement date of the bailout. Peek and Rosengren (1997) document that declines in the Japanese stock market lead to reductions in the US-lending-market share of US branches of Japanese banks, with these