This paper explores the dynamic relationship between firm debt and real outcomes using data from 24 European economies over the period of 2000-2016. Based on macro data, it shows that a rise in debt to firms is associated with an increase in employment growth in the short-term, but employment growth declines in the medium-term. This pattern remains similar, even when the changes in credit to households are accounted for. Next, using data from a large sample of firms from ORBIS, it shows that firm leverage builds predict similar boom-bust cycles in employment growth. Firms with a larger increase in leverage experience a boost in employment growth in the short-term, followed by a decline in employment growth in the medium-term. Relatedly, the volatility of employment growth increases in the aftermath of firm leverage buildups. Finally, this paper provides suggestive evidence on the role of a financial channel in the relationship between firm leverage builds and employment growth. The results show that a rise in firm leverage is associated with heightened pressures in firm balance sheet. Consistently, boom-bust growth cycles in the aftermath of firm leverage buildups are not limited to employment growth, but are also pronounced for investment. Moreover, the medium-term decline in firm employment growth as predicted by leverage builds becomes larger if aggregate financial conditions tighten. The findings are in favor of “lean against the wind” approach in policy making.

Methodology

Panel regressions with fixed effects, 3-year sliding windows in line with Mian et al. (2017) and Gouroud and Mueller (2021) for periods, p = 0, 1, …, 5:

• Macro-level where c: country, t: year, β: fixed effects
\[ \Delta \log(\text{Employment})_{c,t+p} = \alpha + \beta \log(\text{credit})_{c,t} + \eta_{c,t} + \epsilon_{c,t} \]

• Firm-level where j: firm, c: country, i: 4-digit industry, t: year, fixed effects
\[ \Delta \log(\text{Employment})_{j,c,t+p} = \alpha + \beta \log(\text{leverage})_{j,c,t} + \eta_{j,c,t} + \epsilon_{j,c,t} \]

Stylized Facts

Figure 1: Aggregate credit and employment dynamics

Employment growth differential in the indicated 3-year periods across country-year observations with high versus low increase in outstanding credit to firms (as share of GDP) between t-3 and t.

Figure 2: Firm leverage buildups, employment growth and investment

Employment growth (investment rate) differential in the indicated 3-year periods across firm-year observations with high versus low increase in leverage between t-3 and t.

Conclusions and Implications

• Leverage builds predict a boost in firm employment growth in the short-term, but employment growth declines in the medium-term.

• The results point to the role of financial constraints channel, i.e., the dynamics of debt service ratio and investment following firm leverage buildups, and the role of aggregate financial conditions.

The findings are in favor of proactive policy measures to “lean against the wind” of incipient credit booms” (Greenwood et al. 2022).

References


