
Financial accelerator effects in UK business cycles

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The depth and persistence of the UK recession of the early 1990s came as a surprise to many forecasters, particularly the prolonged weakness of corporate investment growth. Views on the causes of sluggish investment growth in this period vary. However, a number of subsequent analyses have suggested a potential role for financial factors, noting the coincidence of weak corporate investment with a marked financial retrenchment by the sector.

The non-financial corporate sector was far more dependent on external borrowing entering the 1990s recession than at the start of the previous downturn in the early 1980s: the financial deficit was around 4% of GDP in 1989 compared with a surplus of about 1% of GDP in 1979. The unexpected deterioration in economic prospects in the late 1980s may have led to a sharp downward revision to companies' desired levels of capital and debt. Marked rises in survey measures of demand uncertainty at this time suggest that demand-side factors were probably important determinants of weaker investment and borrowing. It is also possible that poor corporate financial health may have led to a general rise in lenders' perceptions of the expected risks of lending, reducing the supply of finance. Evidence for this is less clear. In the early 1990s the proportion of respondents to the CBI Industrial Trends survey citing the cost of finance as a constraint on investment increased and corporate bond yields rose relative to default risk-free rates on government debt. These movements were more pronounced than in the early 1980s recession when corporate financial conditions were (arguably) more favourable. It may be that these shifts simply reflected a substantial shift in the riskiness of corporate lending in the early 1990s. However, it is also consistent with a tightening in the terms of finance for borrowers of equivalent risk. This supply-side influence might have added to the demand-side factors weakening corporate investment at this time.

This paper does not attempt to settle this debate, but instead uses a theoretical model to consider the potential for corporate financial conditions and investment to interact. Many macroeconomic models assume perfect capital markets with the implication that financing decisions have no impact on real economic behaviour. In reality of course capital markets are not perfect and in recent years economists have developed models to show that in practice the way that companies fund their investment is likely to affect finance costs and investment activity. For example 'balance sheet models' suggest that companies will often prefer to use internal funds (such as retained profits) rather than external borrowing to finance investment. In other words, external borrowing is more costly than internal finance, with the difference termed 'the external finance premium'. This premium may arise because external lenders cannot perfectly observe and/or control the risks involved in supplying funds to borrowers and

require compensation for expected losses. Borrowers using internal funds do not face this problem. These models also suggest that the risks to lending may rise as companies' own stake in investment finance falls relative to that of external lenders. As a result, the external finance premium may well vary with borrowers' financial health. The resulting interaction between corporate financial positions and borrowing costs can lead to amplification and propagation of shocks, termed 'financial accelerator effects' in the academic literature.

The paper considers the potential role of corporate financial health in recent recessions using a macroeconomic model explicitly designed to allow for these sorts of real-financial interactions. The financial accelerator model developed by Bernanke, Gertler and Gilchrist (1999) introduces a wedge between the cost of internal funds and external finance that responds endogenously to borrower financial health, measured by the share of investment that can be self-financed. When firms can finance most of their investment using retained internal funds, borrowing costs are relatively low. But when firms rely heavily on external finance, borrowing costs rise. The model is calibrated broadly to match UK financial conditions prevailing at the start of recent recessions, and is simulated with and without its financial accelerator mechanism. The simulations highlight the potential episodic nature of financial effects. In particular, the model indicates that financial factors are unlikely to have had much incremental impact on real activity in the early 1980s recession when corporate external borrowing was relatively low. By contrast, the model suggests that the heavy dependence of the corporate sector on external borrowing at the start of the 1990s recession might have been a contributory factor to persistent weakness of investment growth over this period.

These results are at best indicative and certainly do not suggest that financial accelerator effects were the single, or even the most important, determinant of corporate investment behaviour in the early 1990s recession. The relatively simple theoretical modelling framework adopted excludes several potentially important features of reality and can only offer a very stylised representation of the actual experience of the UK corporate sector in recent recessions. However the exercise does illustrate the potential use of balance sheet models as an analytical tool for examining relationships between financial and real factors in the transmission mechanism, interactions absent in many standard macroeconomic models. Further work could usefully explore the robustness of the results by considering alternative calibrations of the specific model employed and/or different theoretical specifications of real-financial interactions. But perhaps the most important development would be an extension to the household sector, where financial factors may if anything play a more pervasive role in determining spending behaviour.