Comment to "Corporate Investment, Asymmetric Information and Agency Costs in the UK"

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Recent studies of business investment (Fazzari, Hubbard, Petersen, 1988), as well as much earlier work (e.g., Tinbergen, 1939; Klein, 1951), have established that investment spending and cash flow are strongly positively correlated. Professors Goergen and Renneboog set for themselves the ambitious task of uncovering the meaning of this fundamental correlation. One interpretation is that it reflects the finance constraints due to asymmetric information between the firm and providers of external finance. An increase in cash flow relaxes finance constraints, thus allowing the firm to undertake more investment. An equally compelling alternative is that managers have a substantial amount of discretion, and undertake actions, such as investment in projects with relatively poor returns, that favor their interests over those of the owners. In this case, additional cash flow leads to additional investment, but for a reason much different than when the firm faces finance constraints. In terms of the labels used by Kathuria and Mueller (1995), we need to test the asymmetric information hypothesis (AIH) versus the managerial discretion hypothesis (MDH). The differences underlying the fundamental correlation are clearly important for understanding firm behaviour.

This paper contains three important innovations. First, it joins a small but growing literature that examines both the AIH and MDH hypothesis together. These problems have analyzed in two extensive but largely independent empirical literatures. For example, the recent comprehensive surveys of finance constraints (Hubbard, 1998) and corporate governance (Shleifer, Vishny, 1997) make little mention of the work cited in the other survey. Of the 101 references in the former study and 237 references in the latter, only seven are common to both. This tiny overlap is surprising since both derive from the same basic problem, the uneven distribution of information between firm and participants in external capital markets.

Second, the paper uses several detailed measures of ownership concentration. Unlike data from financial statements, this information can not be obtained from computer-accessible files. Rather, one needs to do the careful and painstaking work of reading through annual reports and collecting the information in a form suitable to address the questions at hand.

Third, the paper employs a systems GMM estimator. This econometric technique estimates the equation of interest in levels with the instrumental variables differenced and with the equation of interest in differences with the instruments in levels. While the estimator is fairly new (Blundell, Bond, 1998), it seems to overcome some problems with the traditional GMM estimator.

Given the impressive data and powerful econometric technique, this paper is well-positioned to generate important insights into the relations between the AIH and MDH hypotheses and the fundamental correlation. An Euler equation is chosen as the estimating equation. Although I am persuaded about the importance of the research question, I am not fully persuaded about the appropriateness of the choice of the Euler equation.

Let me digress for a moment. Virtually all investment models estimated in the literature derive from the same basic framework (Chirinko, 1993). Optimizing behaviour by a firm facing constraints from market conditions and the production, adjustment cost, and capital accumulation technologies leads to the following investment relation.

$$(I_t/K_t) = \Phi\Delta_t + e_t ,$$

where (I_t/K_t) is the investment/capital ratio, Φ is a parameter inversely related to the steepness of the adjustment cost function, e_t is an error term, and Λ_t is a shadow price. This latter term is key, and sums the current and all future marginal products (appropriately discounted) accruing to an incremental unit of capital. Importantly for the econometrician, Δ_t is unobservable. The solution to this unobservability problem defines several of the popular investment equations. Financial market data offer one solution, and lead to the Brainard-Tobin's Q investment model. If the above equation is transformed appropriately, then we obtain the Euler equation used in this paper. Such a transformed equation is not a decision rule for investment per se, but rather a period-by-period arbitrage condition that must hold if the firm is optimizing.

The paper discusses some of the shortcomings of alternative models. While specification problems surely exist, models must be evaluated in relative terms. The Euler equation has done well in delivering reasonable estimates of Φ. But it has encountered difficulties in terms of parameter instability (Oliner, Rudebusch, Sichel, 1995) and sensitivity to normalization (West, Wilcox, 1994). The results presented in the paper would be more persuasive if additional arguments were presented supporting why the Euler equation is the appropriate investment model in this context.

Using the Euler equation creates two other difficulties. First, the Euler equation represents an arbitrage relation

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that affects the timing of investment between periods t and t+1. If a firm is affected by finance constraints or agency problems during the entire sample, this timing relation will be unaffected, and an Euler equation will be unable to assess the AIH and MDH hypotheses.

A second concern is that the cash flow variable in the Euler equation is difficult to interpret as a signal of finance constraints or agency problems. In the Euler equation presented here, cash flow represents the marginal product of capital. That the full sample results find a negative coefficient on cash flow lagged one period is not as troubling as noted in the paper: a high marginal product in t–1 moves investment towards this period and away from investment in period t, which is the dependent variable in the estimated Euler equation. In the original Bond and Meghir (1994) paper, finance constraints are captured by a non-zero coefficient on the gearing variable. The impact of agency problems on an Euler investment model has not been worked-out to the best of this reader's knowledge.

These concerns aside, when the coefficients are allowed to depend on financing needs and ownership variables, several interesting results emerge (section 4). It would be useful to quantify the extent to which the constraints captured by these non-zero coefficients impact firms and to evaluate the relative importance of the AIH and MDH hypotheses. The number of interesting results to be extracted from this dataset are far from exhausted, and I hope that the authors exploit this potential in future work.

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