The New EBDC Dataset: An Innovative Combination of Survey and Financial Statement Data

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With the objective of opening new fields of economic research and supporting empirical scientific projects, at the beginning of 2008, the Economics and Business Data Center (EBDC) was established as a joint initiative of the Economics and Business Administration Faculties of the University of Munich (LMU) and the Ifo Institute for Economic Research. Located on the premises of the Ifo Institute, the EBDC offers to the scientific community not only access to several external company, micro and macro databases but also makes available the extensive micro data stocks of the Ifo Institute, which include Ifo Business Survey, Ifo Investment and Innovation Surveys as well as Ifo World Economic Survey.

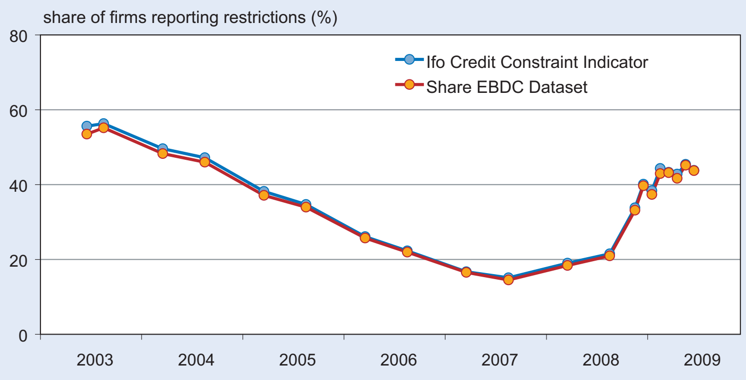
The EBDC has recently developed an innovative dataset of German companies which links the micro data generated from the Ifo Business Survey for manufacturing with financial statement data gathered by the external company databases Amadeus and Hoppenstedt. To match these data sources, we used the method of Probabilistic Record Linkage (PRL) developed at the Center for Quantitative Methods and Survey Research of the University of Konstanz, which has already been successfully applied for the linkage of the German Cancer Register. The resulting dataset is an anonymized unbalanced panel of monthly survey and annual financial statement data currently covering the period from 1994 to 2008. In total, it provides information on almost 4,000 (mainly non-quoted) medium-sized companies containing around 300,000 monthly Ifo observations and more than 20,000 annual balance-sheet observations.

Concerning representativeness, the EBDC panel which is only a subset of the Ifo Business Survey for manufacturing performs rather well. For example, looking at the question of prevailing credit constraints it can be seen in Figure 1 that the share of firms reporting financing restrictions in the EBDC dataset is very similar to the share of 'restrictive' responses in the Ifo Credit Constraint Indicator for the whole manufacturing sector.

In general, what makes the new EBDC dataset attractive for empirical economic research are the wide-range aspects it covers: besides survey data issues such as enterprises' evaluations of their (expected) business situation or their innovation and production activities there are also 'hard facts' such as a firm's sales, its investment or financing structure included. Thus, analyzing variables such as company profits, one can simultaneously consider firms' plans and expectations, check for the divergence between *ex post* and *ex ante* values or include some restricting factors like financial or production constraints.

Figure 1

Share of Credit Constrained Firms - Comparison of EBDC Dataset and Ifo Credit Constraint Indicator



Sources: EBDC; Ifo Institute.

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In the following two recent economic studies are introduced which were carried out based on the EBDC panel. Firstly, in the context of analyzing the relationship between a firm's investment and its tax burden, Büttner and Hönig (2009)[1] use the balance-sheet information on asset and capital structures to construct firm-specific indicators of the cost of capital which capture the impact of the corporate tax system on the incentive to invest. Additionally, survey information included in the dataset is employed to control an investigated firm's current and expected state of business. By doing so, they can identify the effect of taxes and firms' expectations on their investment behavior based on the real firm-specific information instead of assuming several 'representative' firm parameters.

In comparison the paper by Büttner and Fuest (2009)[2] is more concerned with fiscal policy issues and, especially, with the role of the corporate income tax as an automatic stabilizer. From a conceptual point of view the corporation tax may mitigate investment fluctuations as it absorbs part of the initial shock affecting firms' cash flows during an economic downturn. However, as the authors point out, decisions on current investment are primarily made based on its related costs and returns rather than being determined by current revenues. Therefore, the cushioning effect of the corporate income tax will only apply to firms with positive profits and which are financially constrained, i.e. which have to rely on internal funds to finance their investment projects. With the EBDC dataset, Büttner and Fuest (2009) could identify these companies and thus investigate the stabilizing effect of the corporate income tax as well as its variation over the business cycle.

In conclusion, the linkage of micro data from the Ifo Business Survey with balance-sheet data from the company databases Amadeus and Hoppenstedt generates a rich combination of firm-specific assessments, expectations and financial statement positions, thus allowing for entirely new empirical investigations. Especially since entrepreneurial appraisals and expectations play a central role in modern economic theory, the EBDC dataset enhances the research potential of company information significantly, the more so as it is currently being supplemented by the micro data from the Ifo Innovation Survey and will also be updated regularly (generally with a security time-lag of about one year).

For those who are interested in the new EBDC dataset, in the survey data from the Ifo Institute or in financial statement and corporate governance data from external providers, more information can be obtained at *www.ifo.de/EBDC*.

[1] Büttner, T. and A. Hönig (2009), *Investment and Firm-Specific Cost of Capital: Empirical Evidence from EBDC Data,* Ifo Institute for Economic Research (mimeo).
[2] Büttner, T. and C. Fuest (2009), *The Role of the Corporate Income Tax as an Automatic Stabilizer,* CESifo Working Paper 2798.