

The paper is well written. It gives a useful summary of the theory behind venture capital and it provides a statistical overview of venture capital in Europe. It is careful in providing some robustness checks.

Details of paper

1. The paper first reviews why venture capital is important for financing start-up companies. Venture capitalists provide monitoring with expert mentoring. Bank finance typically does not carry this expert knowledge and relies on tangible assets for collateral, which is typically absent at the start-up.
2. Subsequently some summary statistics for the EU are given. Remarkable is that Dutch start-ups are all listed in the US rather than in the EU. This anomaly is noted but not explained. Overall it is found that venture backed firms typically have lower sales and higher leverage than other start up firms.
3. The impact of venture capital on funds raised at an IPO is marginally positive, while sales appear to correlate negatively with venture financing. Subsequently, the paper is very careful in performing some robustness checks. It is noted that venture capital financing of a firm is not a random event. Hence, the authors try to reduce possible biases by controlling for influence of observables and unobservables (in the latter case by using the difference in difference method).
4. The paper ends with some remarks on public policy.

Discussion

1. It is argued that venture capitalists are needed because they possess the expertise and provide the monitoring that banks cannot give. But Europe may be somewhat different in this respect. Germany was refinanced after the WWII through the banking system, and as of today the German banks hold considerable equity stakes in the industry. It is thus conceivable that in Europe part of the venture capital is actually provided by banks, which may have the same expertise as venture capitalists outside the banking sector in other places. I don't know how relevant this is, but it seems worthwhile checking.

2. The paper is focussed on empirics and is rather short on theory. We give an example where the authors may want to expand on their empirical observations. The negative correlation of sales with venture capital finance provision can perhaps be explained by means of real option theory. Real option calculates the value of the firm by taking into account the options embedded in the firm. For start up companies the option value is typically larger than the present value of cash flows currently generated. The present value of the growth option embedded in a start up can be computed through $\frac{E[R]P - C}{E[R]}$, where E[R] is the expected return (via a beta model), P is price and C is earnings. A high real option value goes hand in hand with a large gap between price P and discounted earnings C/E[R], while for firms with a low growth potential this gap is small. Venture capital is primarily targeted at firms with a high real option value. Hence, real option theory predicts that these firms have low sales relative to firms with a low real option value receiving non-venture capitalist financing.
3. The paper finds that the impact of venture capital on funds raised at an IPO is marginally positive. The result is, however, obtained by blocking outliers. Sometimes this may be an advisable procedure. But in case of venture capital, where one success can make up for the failure of twenty others, I do not believe this dummy procedure is very convincing for the question at hand.
4. The introduction of the Euro immediately created a single money market in the EU. But capital market integration is still a remarkably slow process inhibited by all kinds of national public policy measures, possibly also explaining the rather immaturity of the venture capital market in the EU. But before recommending (individual) countries rushing to usher their stimuli for this market, a better approach might be to deregulate the local capital markets such that the venture capital market will come about naturally.

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