Hermann Remsperger: Financing innovation

Welcome address by Professor Hermann Remsperger, Member of the Executive Board of the Deutsche Bundesbank, at the 6th Bundesbank Spring Conference "Financing Innovation", Eltville, 30 April 2004.

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Ladies and Gentlemen,

I have the pleasure of welcoming you to the 6th Bundesbank Spring Conference. The focus of this year's conference is on financing of innovations.

The importance of innovation, or in a more broader sense technological progress, for economic growth has been recognised early on in the works of Adam Smith, Thomas Malthus or Karl Marx - to name the most prominent. Later on the contributions of Schumpeter and the neo-classical growth models that appeared half a century ago refocused the profession's attention on innovation as one of the major forces behind economic development.

The crucial role played by innovation in fostering growth is even more apparent in modern knowledge driven economies. The more recent literature on economic growth, which endogenises technological progress and also devises more refined methods of measuring technological change, proves that this topic is of key concern among macroeconomists today.

Additionally, recent empirical evidence underlines the significance of innovation. Moreover on the microeconomic level firms are becoming increasingly aware that knowledge management as well as R&D are the driving force for their economic performance.

Among the core conditions fostering innovation and thus sustainable growth are a competitive economic environment, intellectual property protection, openness for trade and investment, sound macro policies and a good educational system.

The emphasis of this conference is on an important determinant of innovative activities: the availability of financing or more generally the role of financial markets.

Focusing on Germany in particular, the experience of recent years has revealed that there is a link between the structural characteristics of a financial system and the funding of innovative activities. A mainly bank based system might have drawbacks when it comes to financing highly risky investments of start-ups.

Against this background, I will center my remarks around two issues that are of particular relevance for Germany.

The first issue concerns the ongoing debate about insufficient bank financing in general and especially for riskier investments, sometimes culminating in the claim that Germany is suffering a credit crunch. The second issue deals with the German venture capital market.

Although the importance of market-based financing of innovative activity like private equity and venture capital is increasing a discussion of financing conditions in Germany would be incomplete without talking about bank loans.

As you probably know the growth of real loans in Germany has been exceptionally low over the last three years. On average loans in real terms to the private sector have even fallen by about one percent per year.

This remarkable weakness has to be assessed against the background of a period of very low economic growth. Annual real GDP growth was only about ½ percent over the last three years. This of course reduced the demand for external finance significantly.

Additionally, investment decreased sharply which possibly has been the most important factor behind low credit growth in Germany. The decline in investment has been drastic in comparison to the level of economic activity. Between 2001 and 2003 real investment fell by over 5 percent a year.

This has driven down the ratio of investment to GDP to about 18 percent. Compared to the last forty years we have never seen a period where this ratio has been that low in Germany. On average it was almost 23 percent.

The decline in the investment ratio could possibly be attributed to two factors. First, constructing activities haven fallen constantly since the peak in the middle of the nineties following the reunification boom. This has caused a medium-term downward trend in investment.

Second, we have seen a dramatic decline in fixed investment recently. This could possibly be explained by some degree of "overinvestment" during the new economy boom which reduced the need and capacities for new investment in the following periods.

We do not have any indications that this outstanding magnitude of the fall in fixed investment could be attributed to a lack of means of finance or even a credit crunch.

As a consequence of Germany's weak economic performance credit default risks have increased remarkably during the last three years. The number of insolvencies of private households and enterprises has risen to more than 100,000 in 2003 - almost 20 % more than 2002. In order to prevent further losses from non-performing loans this has led banks to increase the standards for bank lending. However, this has not led to a general shortage of loanable funds.

Additionally, our econometric models confirm that the development of real loans is still well explained by weak GDP growth and the downturn of investment. Loan growth rates are mostly within the confidence bounds of our empirical benchmarks. This is particularly true for the development of loans to enterprises. The decline of loans in Germany was essentially driven by the weak economy and not the other way round.

In this connection I'd like to add some remarks on Basle II. The rules of Basle II are intended to improve risk controlling of credit portfolios. In this respect Basle II contributes to a more efficient pricing of risks. Bank loans for high risk projects are becoming more expensive, while the opposite is true for low risk loans.

But does this mean that it will become more difficult for risky projects to get financed by bank loans? Not necessarily! One could rather expect the opposite effect. An increased level of monitoring and pricing of risks could also be beneficial for the financing of innovations. This is because both reduce the information asymmetry and lead to a greater allocative efficiency.

Hence risky innovative projects with a reasonable likeliness of success might pay higher loan premia but might also have better chances to find funding. In contrast, a less closer monitoring and pricing to risks could rather lead to credit constraints which are likely to be less efficient.

Now, I would like to draw your attention to the German venture capital market. The main virtue of venture capitalists is the combination of funding for high-risk projects with management support. As the US National Venture Capital Association puts it, they are "entrepreneurs first and financiers second, because they seek to add value through their experience in investing".

Venture capital only played a minor role in Germany for a long time. Promoting start-up firms only started to develop about ten years ago. Over the last ten years, the amount of capital invested in German venture firms has increased from 0.15% to 0.84% of GDP, reaching about €18 billion in December 2003.

Despite this remarkable growth, venture capital is far less significant in Germany than in the US where it has become a mainstream asset class, amounting to more than 2% of GDP.

Before the peak of the stock market bubble was reached, there was a high funding surplus in the German venture capital market. This suggests that the bottleneck for further market growth was due to the structural impediments for an innovation-based production.

In the last two years, gross investment in venture projects amounted to only €2.4 billion or 0.12% of GDP. Moreover, after the bubble burst, there were considerable shifts from financing high-risk to low-risk later stages. These shifts reflect a reduced risk appetite among investment companies.

The gradual disappearance of the IPO option has discouraged those who had assumed an exit via the stock exchange. After stocks had crashed on the "Neuer Markt" divestments became less profitable. Today, there are some signs of optimism and new momentum on the German venture capital market.

I would like to complete my remarks by commenting briefly on the recent emergence of a group of venture capitalists who still consider the early stage of venture capital as an element of their investment strategy. I'm talking about the so-called "corporate venture capitalists". They have a longer-term investment horizon which makes them less vulnerable to fluctuations on the stock exchange.

As a subsidiary of a large industrial or financial enterprise, a corporate venture capitalist always maintains close financial and business relations with his holding company. This enables him to provide his venture firms with more than the support offered by a traditional venture capitalist. The project is now closely linked to the holding's industry and the innovative ideas are considered to be worth financing.

Instead of limiting its investment to short-term financial success, the holding company is interested in using the innovative project as an instrument for its own long-term growth strategy.

In turn, sustainable growth on the part of the venture project implies a rather long-term investment horizon. The advantages for the funded firm lie in smooth financing over time, backed by stable management support whilst the innovative enterprise comes of age.

This new type of investment company has started to change the venture capital landscape in Germany. Whereas only five corporate venture capitalists were associated with the German venture capital association during the stock market boom, their number is now four times as high. Today, about two-thirds of the DAX companies have corporate venture capitalists as subsidiaries.

I would like to conclude by emphasising that, even if we were to see investor confidence in early stages and high-tech sectors fully restored, much still has to be done to create an innovation-friendly climate. On our way to higher innovation rates, we need a favourable environment for "grass-root" activities.

Whilst the tax exemption of gains from the liquidation of corporate equity holdings was a step towards improved asset allocation, further barriers have to be removed. This includes administrative and tax considerations as well as labour and product market deregulations, thus ensuring a competitive environment.

Given the impressive list of distinguished speakers and participants I am convinced that this conference is making an important contribution towards our understanding of the financing of innovation. It also demonstrates that we consider this topic an important area for our own research activities.

In this context and more generally I would once again like to emphasise that the Bundesbank not only recognises but also actively supports the role of economic research for the conduct of monetary policy.

We definitely regard economic research as essential in order to fulfil our objectives. This assessment of the role of research has already led to the build up of significant research capacities within the Bundesbank.

It has been realised by several efforts like the founding of our economic research center, the appointment of a board of research advisers as well as the creation of research professorships and last but not least an ongoing active participation of our economists in the international academic debate about monetary policy and other economic issues.

Academic conferences like this on financing innovation have almost become a part of our "daily business". (Although I have to admit a very pleasant one!) I wish you thought-provoking discussions and a pleasant stay at our conference facilities. Thank you very much for your attention.