Europe will pay later for cutting back on innovation

Makkonen, Teemu

Published in:
Research Europe

Publication date:
2013

Document version
Publisher's PDF, also known as Version of record

Citation for published version (APA):
Europe will pay later for cutting back on innovation

Among economists who study innovation, there is debate over how government R&D spending responds to economic crises. Some believe that spending on innovation falls during economic downturns—an intuitively obvious hypothesis, as there is less money to go round.

Others, in contrast, have suggested that innovation spending should be counter-cyclical, rising when the wider economy suffers. The assumption is that, as John Maynard Keynes argued, public investment is needed most during an economic downturn, as a means of kick-starting the wider economy. As so much growth in developed economies flows from innovation, R&D spending should be a particularly effective means of providing such a stimulus.

There is no clear consensus on which hypothesis is more accurate. But the economic crisis that began in 2008 has created an opportunity to test the ideas against data for EU member states. Not surprisingly, different countries have responded differently. But the overall picture supports the idea that government spending on science and technology follows the economic cycle, shrinking rather than growing in times of crisis.

Before the crisis hit in 2008, only Sweden and the UK among EU member states showed negative trends in R&D spending. By 2010, this had risen to 12 nations. In many innovation spending continued to grow, but at a slower rate. In general, R&D budgets have mirrored changes in total expenditure—indeed, such spending was more closely correlated with GDP in 2010 than in 2006.

More than 75 per cent of EU member states reduced their budgets for most of the different forms of R&D spending analysed in EU statistics (known as the NABS classification). This is in line with earlier studies on innovation spending by companies.

The countries whose science and technology spending was hit hardest by the crisis were Belgium, Hungary, Ireland, Italy, Latvia, Lithuania, Romania and Spain (there are no data for the Greek government’s R&D spending in 2010). In all of these, spending fell both in absolute terms and as a proportion of government expenditure—Latvia and Lithuania showed particularly sharp falls, and Ireland cut innovation spending heavily even while total government expenditure continued to grow. In the UK, the absolute and proportional R&D budget began declining before the crisis hit, and continued to do so.

With its steady increase in science and technology spending both before and during the crisis, Germany ranks in a league of its own.

Not surprisingly, the crisis seems to have hit innovation budgets hardest in the economically weaker members of the EU, particularly in eastern Europe and, to some extent, southern Europe. However, Portugal stands out as a positive exception: here, the steady pre-crisis growth rate in government R&D spending has been maintained.

Pro-cyclical innovation spending is not inevitable, though. Finland responded to a serious recession in the early 1990s by increasing government spending on innovative activities. This led to new products and ways of doing things, increased the productivity of Finnish industry, and was a significant factor in the country’s strong economic rebound. It also marked the beginning of the restructuring of the Finnish economy from resource-based heavy industries to knowledge-based information and communications industries, for which the country is now globally known.

This seems like an example for other nations. However, Finland’s response to the current crisis has been different. The growth rate of the science and technology budget has been maintained, but funds have become more concentrated, particularly in industrial R&D, which has seen a budget increase of around 20 per cent—a bigger leap in absolute terms than the total budgets of most other areas. This strategy is worrying, as it is hard to predict which industries and research fields will fuel future growth. It also threatens to weaken the research base, as universities and research organisations have to put more of their own money into research, which may force poorer institutions to abandon some work.

As a short-term measure, cutting R&D spending during a recession is understandable, but in the long run surviving an economic crisis relies on a nation’s ability to innovate. In times of crisis, it is vital that the public sector continues to provide incentives for the private sector, as the reduction of government funding drives much of the drop in business R&D expenditures. Cuts may improve short-term balance sheets, but they come at the cost of long-term growth.

‘In the long run surviving an economic crisis relies on a nation’s ability to innovate.’


More to say? Email comment@ResearchResearch.com