

Weak innovation dogs productivity, competitiveness

There was an interesting statistic on Reuters the other day which underlined the economic mountain Euroland strugglers Greece and Portugal have to climb. Per million inhabitants they each filed fewer than eight applications with the European Patent Office (EPO) in 2010. Germany, with the advantages of scale that go with a population eight times bigger, lodged 335 patent applications per million residents. But the Czech Republic, of a similar size to Greece and Portugal, managed 16. Much-smaller Ireland boasted 112, according to calculations based on data on the EPO website.

Figures on research and development (R&D) are little better. Greece spends just 0.6% of GDP on R&D, the same as in 1999. Portugal's R&D rose to 1.66% of GDP in 2009 from 0.69% a decade earlier but still lags the OECD average, which rose over the same period to 2.33% from 2.16%.

Innovation matters because it is a key driver of competitiveness, allowing firms to win greater market share and feeding through into greater productivity. Patent filings and R&D expenditure are only a rough proxy for a country's innovative capacity, but according to the European Commission there was a strikingly strong correlation between R&D spending in the European Union in the period 2004-2009 and economic growth in 2011. It said member states which invested in research and innovation have been stronger in the crisis and are exiting faster.

As such, the figures illustrate the longer-term growth challenges confronting Greece and Portugal. Whether they succeed in boosting productivity, now just 65% and 77% respectively of the European Union average, will largely determine if they can close the competitiveness gap with Germany and other stronger Euroland members. That is the root cause of markets' scepticism about the ability of '*peripheral*' Eurozone countries to grow quickly enough to sustain their huge debt loads.

Greece and Portugal are not the only innovation laggards. Worryingly, Italy and Spain both spend less than Portugal on R&D and trail Ireland badly on patent filings, at 67 and 31 per million inhabitants respectively. True, some experts argue that the effective deployment of technology, in conjunction with policies that promote competition, are far more important for productivity and innovation than R&D spending itself. Why, they ask, hasn't Europe spawned a company like Google or Facebook or Amazon? The Research Centre on Competitive Advantage in the Global Economy at the University of Warwick in England says that for the typical European country 90% of the R&D that contributes to productivity growth is conducted abroad. The OECD too agrees that innovation depends

on much more than R&D. It also requires things such as software, human capital, intellectual property and organisational know-how at company level.

Unfortunately, countries on the periphery of the Eurozone are also not doing a great job when measured according to these “*intangible assets*”. In a recent detailed study of the innovation potential in the three Eurozone countries that have had to accept an international bailout, Deutsche Bank ranked their prospects in the same order as the bond market does: Ireland scores best, followed by Portugal and Greece brings up the rear.

Ireland spends below the EU average on R&D but is well positioned because of its high-tech strengths in information technology, medical technology and pharmaceuticals, buttressed by strong links between companies and academic institutions. Innovation in Portugal is stifled by low skills. It is near the top of the league in the number of doctoral graduates, but poor tertiary and secondary education acts as a barrier to the production of high-value goods and services. Employment in knowledge-intensive sectors is far below the EU average. The OECD says that education shortcomings, though being addressed, were one reason why Portugal was unable to adapt quickly when traditional industries such as textiles ran into stiff competition from Eastern Europe, China and North Africa.

Poorly trained workers find it harder to switch industries and jobs and redirecting the education system could take decades to bear fruit. Little wonder then that Portugal has logged annual GDP growth of less than 1.0% in the past decade. Unlike Portugal, the environment for innovation in Greece has improved only slightly in recent years. There are too few innovation and research projects worthy of being funded, and the education system is not imparting the right skills and qualifications.

So what needs to be done? The OECD has stressed the importance of a supportive business environment and believes exposing companies to greater competition would spur them to innovate to stay in business. It also feels that Europe needs to attain scale by removing the barriers to cross-border collaboration in science and innovation. Deutsche highlighted the urgency for companies in traditional industries in Greece and Portugal such as tourism and textiles to embrace a culture of innovation.

In the short-run, with the crisis countries desperate for growth, foreign direct investment could play a key role in helping both countries to attract modern technology and management methods. But to do so the underlying business conditions will have to be overhauled. A comprehensive economic strategy has to include a modernisation of the public sector and the implementation of structural reforms.

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