

Skills, social insurance, and changes in innovation investment after the onset of the financial crisis in Europe

Andrea Filippetti
Italian Research Council (CNR) Rome, and
Department of Geography, London School of Economics
andrea.filippetti@cnr.it

Frederick Guy
Department of Management, Birkbeck, University of London
Malet St, London WC1E 7HX
f.guy@bbk.ac.uk

This paper compares investments in innovation from the early days of the financial crisis up to mid 2009 using a survey covering more than 5,000 firms across twenty one European countries. We estimate a logistic regression model, explaining the persistence of firms' overall investment in innovation from the period just before the onset of the financial crisis, to the months just after.

Our interest is in how differences in labour market institutions and human capital affect a firm's innovation investment during the recent financial crisis. We find that continuity of investment in innovation in Europe during the onset of the financial crisis in 2008-9 was strongest in countries which have *both* unemployment benefits with high short term (1 year) earnings replacement rates [RR], and high participation in vocational education and training [VET]; in countries which had just one of these, firms were more likely to have reduced innovation. We find no effect (either positive or negative) on innovation persistence from employment protection (statutory protection against dismissal [EP]).

Let us position this finding with respect to debates on the role of social insurance in skill development, and on the role of skill in innovation investment.

Estevez-Abe, Iversen, and Soskice (2001) [EIS] observed that countries with high RR, high EP, or both, had on average, substantially higher VET than countries that were low in both RR and EP. They coupled this with the proposition that some form of income insurance – offered either by the state via RR, or by employers due to EP – promoted risky investments in skills that are not broadly transferable: firm-specific, industry-specific or (we would add) technology-specific skills (we will call all of these simply “specific skills”). For EIS, VET enrolment was indicative of investment in such specific skills.

A related policy agenda has emerged within Europe, promoting “flexi-curity”. There is no universally agreed definition of flexi-curity; we use the term to refer to a Danish-style combination of high RR, high VET, and moderate EP. By the EIS argument, flexi-curity is one avenue by which investment in

specific skills can be ensured, but EIS offer no particular reason why flexibility (low-moderate EP) should be needed for that outcome.

Investment in innovation is likely to be counter-cyclical to the extent that it depends on skilled employees already present in a firm: firms look for ways to hoard skilled labour, and to make it useful, during a downturn. Where innovation is a purchased input (new equipment, retention of consultants, purchase of intellectual property), on the other hand, investment is more likely to be cyclical. Therefore we would expect a labour force with high levels of specific skills to produce greater persistence of innovation during the crisis.

EIS's association of specific skills with VET, however, needs to be qualified. Their argument is that some form of insurance – a credible promise by either the state or the employer that income will be sustained and retraining provided, in the event that a specific skill becomes obsolete or surplus to requirements – promotes investment in specific skills. It is not clear, however, that VET enrolment is, on its own, a good measure of investment in specific skills. VET measures, roughly, participation in post-compulsory education other than that which is on an academic (university) track: not all such training is in specific skills.

Our finding that a combination of high RR and high VET produces sustained innovation suggests that, consistent with EIS, insurance (RR) induces investment in specific skills, if there is an institutional framework to provide the training (VET). High VET without high RR does not produce counter-cyclical innovation because it does not produce a good supply of specific skills, because individuals will not make such an investment without insurance. Similarly, high RR without high VET does not produce a good supply of specific skills: individuals might be willing to invest, but there is no delivery system. This finding is broadly in keeping with the flexi-curity model, with two caveats: first, descriptions of the flexi-curity system are often silent on the specificity of skills; our findings – in keeping with EIS's – indicate that the economic benefits of flexi-curity will only come from institutions which promote investment in specific skills, with full confidence that retraining will be provided as necessary. Second, we do not find evidence for the importance of flexibility (in the sense of low-moderate EP): the critical elements are high RR and high VET.

Reference:

Estevez-Abe, M., T. Iversen and D. Soskice (2001). Social protection and the formation of skills: a reinterpretation of the welfare state. Varieties of Capitalism: The Institutional Foundations of Comparative Advantage. P. A. Hall and D. Soskice. Oxford, Oxford University Press: 145-183.

Key words: *varieties of capitalism; labour market institutions; skills; innovation investment; financial crisis; EU labour market; comparative studies.*