

Editorial

In March 2010, the Science Policy Research Unit (SPRU) at the University of Sussex held a conference in honour of Nick von Tunzelmann. The Nickfest, as it came to be called, was quite an occasion, as well it should have been: two full days of papers from those who know and admire Nick and his work, many of them once Nick's colleagues or students. The Nickfest was an entirely fitting way to mark not just Nick's retirement, but also his contribution of so much to so many. *Prometheus* is happy to add its mite to the praise of Nick von Tunzelmann in its selection of several papers from the conference that represent the spirit of the Nickfest.

Despite the Prussian name, Nick von Tunzelmann is actually a New Zealander. He began his academic life at the University of Canterbury. Not many people know this, but there is actually a von Tunzelmann Point somewhere in Antarctica, named after a roving relative. Nearly fifteen years at Cambridge followed before Nick fetched up at SPRU in 1984. He is now an emeritus professor there. Technology has always been his subject, how it changes, how it can be transferred, how it emerges and develops into complex systems. Nick has always been – as so many genuine scholars are – an historian: to begin to understand where we are and where we might be going, we must first understand how we got here. Nick's work always seeks – and generally finds – context.

As economic historian, Nick has done sterling service for years in annoying orthodox economists; indeed, he harries anyone who shackles an argument by obliging it to observe the convenience of convention. He has resisted both the lure of management as an expanding subject in universities, and the temptation to destroy such an easy target with his merciless logic. Those of us who enjoy blood sports have always regretted the latter. In the SPRU of the last century, Nick found an intellectual home, a place where ideas about technological change ricoched from the very walls. What SPRU lacked in efficiency under the leadership of Chris Freeman, it more than made up for in scholarship. The best in the world in science and technology policy flourished in this atmosphere; Nick von Tunzelmann breathed deep and thrived.

The six papers in this issue of *Prometheus* are not representative of Nick's work, nor are they intended to be. Rather they are representative of the inspiration and guidance that Nick gave to so many in their own work. SPRU advised the world on science and technology policy, and consequently found visitors and students from round the world arriving at its doorstep to drink from the font. Nick relished the interaction – as he still does – and delighted in relating his own perspectives on change to those of so many others. It was no surprise at all that the conference in his honour involved many dozens of speakers and some hundreds of delegates. It is from this well that we have drawn, aided by Maria Savona, the chief organiser of the event. Steven Henderson from Solent

University has undertaken the editing of the collection with all the skill and determination the task requires.

The use of such intellectual property rights as patents and copyright by universities has increased steadily over the last two decades. Birgitte Andersen and Federica Rossi examine what seems to be deviant behaviour: why should public institutions, supported by public money for the public good seek to make private property out of what they produce? The study of intellectual property rights is deep in the SPRU tradition and their paper would have intrigued Keith Pavitt, Nick's colleague at SPRU. Andersen and Rossi find huge market failure in university use of IPR and advocate the open distribution of academic knowledge rather than its privatisation. This is not the way to the heart of the modern vice chancellor.

Isabel Freitas, Aldo Geuna and Federica Rossi also look at relations between universities and firms. They focus on their collaboration, and find that contractual relations between institutions are much less effective than contractual relations involving individual academics. The observation is pertinent to the tension between the professional and the managerial in the university. Where the professional has given ground – as it has throughout the UK – there may be acceptance that it is the role of the institution to determine the role of the individual. This may satisfy the modern vice chancellor more than it satisfies the firm wishing to deal with an individual rather than an institution. Developing a similar theme, Valeria Arza and Claudia Vazquez, from Argentina, investigate the links between public research organisations and the firms that use the information they produce. They discover that information flows in a variety of ways, and that interaction is most productive when it flows in both directions. As a temple of knowledge the public research organisation is isolated from the outside world.

Two papers concern themselves with small firms of various sorts. Massimo Colombo, Annalisa Croce and Massimiliano Guerini, from the Politecnico di Milano, examine new technology-based firms (NTBFs). They find that NTBF policy serves large firms best in the north of Italy. The small NTBF is neglected. In the south of the country, all NTBFs are neglected. Young, small NTBFs benefit greatly from public subsidy when they get it, but this just does not happen often. Luca Grilli and Samuele Murtinu also ask whether public subsidies really do help the NTBF. The argument is clear: the market fails to appreciate the value, especially the public value, of so much novelty. So, there is apparently a role for public subsidy. However, their discovery is that public subsidy is effective only when it is selective rather than automatic, and when it is directed towards enhancing the R&D performance of the NTBF. In other words, policy makers must know what they are doing if they are to devise programmes capable of distinguishing R&D worthy of public support. Their record in this area is not good. Giovanni Cerulli and Bianca Potì, from the National Research Council in Rome, also explore the Italian situation. Their paper looks at the impact of a specific R&D policy instrument, the *Fondo per le Agevolazioni della Ricerca*, on industrial R&D and technological output at the firm level. They find, as have many others, that policy seems to benefit large firms rather than small. Now why should this be?

We hope Nick von Tunzelmann will find not only some interest in these papers, but also some of his own interests. We hope he will feel that he had some hand in inspiring not just the area of inquiry, but also the questioning that makes these

papers worth reading. Nick will get some satisfaction from that, satisfaction that Nick, the kindest of men, thoroughly deserves.

Stuart Macdonald
General Editor