

# Economics: Teaching, Applying, Learning

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It's a great pleasure opening today's conference, partly I because I'm a great supporter of the Government Economics Network but mainly because of the important topic you have chosen as the conference's theme.

This conference is essentially about the ongoing relevance of economics and economics teaching. Young people want to study economics because they want to understand how an important dimension of the world we live in works, and want to help improve the lot of their fellow human beings by improving the world. They want to make a difference, and studying economics can help them do it.

Indeed, when I started studying economics at school, I too was driven mainly by a desire to better understand the world. Richard G Lipsey's *Positive Economics* was my first textbook. My university days were lived amidst the emergence of stagflation, the end of the Bretton Woods System of fixed exchange rates, the apparent triumph of Friedman and the certain death of Keynes. That was a long time ago.

I graduated from a student of economics to a public policy practitioner. I have spent all my professional life working in institutions that provide public policy advice. Public policy's *raison d'être* is the belief that the state can use its powers to increase the wellbeing of its citizens.

However you want to define it, economics is one of the most important tools in a policy adviser's tool kit. And as New Zealand's economics and finance ministry, the Treasury is in the economics business.

Economics can mean different things to different people. Alfred Marshall called it a psychological science. Lionel Robbins defined it as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses". John Maynard Keynes wrote that "economics is essentially a moral science and not a natural science".

Economics exists as a distinct discipline because every person, as well as every society, faces an 'economic problem' arising from the fact that individually and collectively we have limited resources (in the widest sense of the term, including our own time and capabilities) to meet unlimited wants. As a tool, economics provides a disciplined way of thinking about alternative mechanisms for addressing this problem in a way that contributes to the improvement of overall wellbeing.

Various possible approaches to the solution to this problem (embedded in institutions and rules about their operation) have been tried at different times throughout history. They all attempt to increase available resources on the one hand, and ration the allocation of these resources to their highest valued uses on the other. One of these sets of institutions are markets and the rules that surround their operation, relying on the price mechanism to coordinate and resolve the tension between unlimited wants and limited resources (and in the process also incentivising the efficient use of limited resources).

An economy is complex; it can't be packaged into a neat parcel. It also involves people. And at the end of the day, it's about decisions based on choices that reflect individual behaviours, cultural norms, globally interconnected communities in constant, and increasingly rapid, change. It's about how economic agents behave and interact, whether they are individuals, markets, firms, governments, buyers and sellers, or the entire economy. As I said, in public policy, it's about recognising the reality of scarcity, of finite resources, and asking how those resources can be allocated most effectively and efficiently.

All public policy – at least in its economic sphere – asks the same fundamental question: whatever mechanisms we choose to use to solve the 'economic problem', what can the state do to make the mechanism work better towards improving collective wellbeing, or, in the spirit of Amartya Sen's teachings, to enhance the opportunities, capabilities and incentives of individuals to live the kinds of lives they have reason to value?

Economists have various tools and models to help them think in a disciplined way about the effectiveness of these different mechanisms, and how to select and use them to this social end. All public policy is about the choice of groups of such interventions and the design of institutions that will give effect to them. Economics helps us identify and analyse relevant trade-offs in making these choices.

Technological advances have led to significant improvements in the economist's toolkit over the years. The availability of data, the power of modern computing, the greater access to ideas and information, the speed of that access, have all helped to increase our understanding of economics in ways that we couldn't really imagine in my school days. I warmly welcome and embrace these developments and urge our economics teachers to

stay abreast of them. We want their students to be equipped with the latest available tools that will help them analyse and try to solve economic problems.

But we also need to make sure that we all understand what these tools represent. Problems arise when the simple models developed to think systematically about the economic problems and the relative effectiveness of alternative solutions to them, are confused with the reality we are trying to address. That risks confusing a moral science for a natural one.

The discipline of physics benefits a great deal from studying the behaviour of objects in the absence of gravity, and in building models and using mathematical techniques to pursue this endeavour. However, an engineer designing and building an airplane does have to take the effects of gravity into account!

Similarly, it is extremely useful for economists to build models of economies with complete and efficient markets across space and time, populated by super-rational individuals, with perfect foresight. We learn a lot from building and using these models in our theoretical work. However, in designing policy, we need to accommodate for the fact that all these are simplifying assumptions – otherwise unintended consequences are very likely – which, according to many economists, is precisely what caused the most recent global financial crisis: policies were built on wrong assumptions.

When I reflect on the financial crisis of 2007-08, one point that does stand out is how dominant the efficient market hypothesis had become, how quickly it had seduced financial markets or those who wanted economics to be a natural science, who found it hard to deal with the uncertainties of cultural norms, of human reactions, of complex choices. As Paul Krugman put it, “economists, of all people, should have been on guard for the fallacy of misplaced concreteness” and “the economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth”.

In this context, I often think about what Alfred Marshall said: “I have a growing feeling that a mathematical theorem dealing with economic hypothesis is very unlikely to be good economics, and I go more and more on the rules: (1) Use mathematics as a shorthand language rather than as an engine of enquiry. (2) Keep to them until you have done. (3) Translate into English. (4) Then illustrate by examples that are important to real life. (5) Burn the mathematics. (6) If you can’t succeed in (4), burn (3). This last I do often.”

Different thinkers and different ideas have been recognised with the Nobel Memorial Prize in Economics in the last 30 years including Solow, Coase, Becker, Lucas, Sen, Stiglitz, Kahneman, Phelps, Krugman, Schiller, Fama and, just last month, Jean Tirole. They have all, from various perspectives, addressed the tension between simplicity and complexity. And they’ve grappled with the desire to make economics relevant in solving problems in the real world while preserving the rigour of the discipline.

These Nobel Prize winners demonstrate diversity of thought among economists, a diversity that needs to be preserved, promoted and enriched. Whether people follow the classical, neo-classical, Austrian, Keynesian, New Keynesian or some other school, preserving this intellectual diversity – and in fact allowing it to pollinate – can only help to improve our understanding of the world we live in. I don’t agree with Milton Friedman when he said that “there is no such thing as different schools of economics; there is only good economics and bad economics”. I am more in John Stuart Mill’s camp when he wrote “He who knows only

his own side of the case doesn't know much about it. His reasons may be good, and no-one may have been able to refute them; but if he is equally unable to refute the reasons on the opposite side, and doesn't even know what they are, he has no grounds for preferring either opinion".

So for me diversity and inclusiveness are important. But we can't just stop there. We also need to be braver and avoid the temptation to stop at economic ideas that leave us feeling comfortable.

At one level maybe we should recognise that economics is getting harder. The financial crisis has made clear that we can't just rely on simple models, that rational expectations theory only helps to get us to part of the answer and that the efficient market hypothesis is just that.

The days when social achievement was measured exclusively by the increase in total production – GDP – are also on their way out.

Increasingly we are facing up to the challenge that economic actors operate in complex ways and not according to straightforward and predictable scientific formulae. Economics is not a natural science. We can't imbue it with a determinism that it's never had or afford to be seduced by a certainty that it's never offered. We have allowed too much of economics, and too many economists, to rest on the laurels of algebraic certainty and not push themselves into the field of the human science that economics actually is, where choices are more difficult to arrive at and certainty more difficult to see.

Over the last few years the Treasury has attempted to take our understanding of living standards from the conceptual to the tangible. We've taken up the challenge of how to improve living standards (which I see as at the heart of economic thought and the objective of economic policy). We are looking to enrich our advice so that it is more comprehensive, more meaningful, and ultimately more effective and successful at supporting Ministers to make choices that improve the wellbeing of New Zealanders.

In my view we are working at the frontier of economic thought. Moreover, solutions to real world economic and social problems should be developed and applied in collaboration with people from various disciplines.

At the Treasury, we have been attempting to face up to all these complexities and challenges by adopting a multi-dimensional approach to our policy thinking, which we refer to as our Living Standards Framework.

I'm not going to explore the Framework today. But I am saying that working at the harder end of economics as we are means we need well-trained economists. It means we need our universities to be teaching a rich, purposeful, analytically rigorous subject.

As teachers of the discipline of economics, you can contribute to our efforts to improve overall wellbeing in a multi-disciplinary way by not only teaching the frontiers of economic thinking to your students but also helping them build the kind of background that will enable them to bring a multi-disciplinary approach to solving economic and social problems.

As Keynes said, "the master-economist must possess a rare combination of gifts. He must be mathematician, historian, statesman, philosopher – in some degree. He must understand

symbols and speak in words. He must contemplate the particular in terms of the general and touch abstract and concrete in the same flight of thought. He must study the present in the light of the past for the purposes of the future. No part of man's nature or his institutions must lie entirely outside his regard. He must be purposeful and disinterested in a simultaneous mood; as aloof and incorruptible as an artist, yet sometimes as near to earth as a politician".

New ideas and new tools have pushed us closer to that frontier. Boldness and innovation can help us cross it. There is no reason why we cannot do that. So my questions to the economics profession are:

- Are you covering different schools of economic thought in your teaching? Is your approach intellectually pluralistic enough?
- Are you teaching enough economic history, so that we can learn the lessons from the past?
- Do your students have enough time to absorb and reflect on the material they are learning? In fact, as the discipline expands, are your students taking enough economics?
- Are you encouraging your students to embrace and respect the perspectives that other disciplines bring to thinking about and solving economic problems? What, for example, have we learned about neuro, evolutionary and behavioural economics? And how can that learning be better incorporated into public policy-making?
- How can we better understand the trade-offs between policies that improve incomes and those that improve social inclusion or environmental sustainability or our resilience to economic shocks?
- And, perhaps most importantly, are you challenging yourselves, and your students, to think beyond the comfortable?

For my part I continue to believe that successful economies need, among other things, a stable and sustainable macroeconomic framework, sound monetary policy that delivers stable and predictable prices, a prudent fiscal policy and debt that's under control. And I also believe that a stable and well-regulated financial system matters, that properly functioning markets matter, that price signals matter and that incentives matter.

But I also know that resources are finite, that externalities exist and that we have to use all the tools at our disposal if we are to address our 'economic problem'.

Perhaps as important as anything is this: we need economists to help the community to understand better the resources that are available and the choices they face and, in turn, support decision-makers make decisions that will lead to higher living standards for New Zealanders and enhance the opportunities, capabilities and incentives for people to live the lives they value.

My generation is not the only one to grow up amid great debates in economics. Older generations did the same and no doubt future ones will too. Our challenge was perhaps

best put by Keynes when he said: “the difficulty lies, not in the new ideas, but in escaping from the old ones”.

My challenge to all the economists in the public sector is this: make sure that you keep up with the play with an open mind, learn from the teachings of the great thinkers of years past, keep up with the latest techniques of economics, maintain a constant spirit of inquiry in your analysis, embrace the diversity of thought that young people bring to our lives and to our work, and make sure that they have a voice in the formulation of policy advice.

As Keynes also said, “it is astonishing what foolish things one can temporarily believe if one thinks too long alone, particularly in economics”. We can avoid falling into that trap through great teaching, through applying our knowledge well, through learning from experiences, through sharing what we’ve learned, seen and done, and through constantly challenging ourselves and not stopping at the comfortable.