What do economists know that is both true and important? Not nearly as much as we sometimes pretend. Every profession harbors an inability to appreciate the limitations of its perspective and a tendency to exaggerate its own significance in the larger scheme of things. Since this essay comes from the pen (word processor, actually) of a devout economist, it will probably exaggerate the power and social value of economists' knowledge. But the critics of economics have lately enjoyed a substantial amount of public exposure in this part of the world. If you want a sample, see "A Consumers' Guide to Recent Critiques of Economics" in Agenda, the new Australian policy journal.¹ A resounding defense of economics can therefore do no harm.

The Heart of the Matter

Why pay heed to economists? What do they know that is worth listening to? The answer differs, of course, among economists. Some know a lot about the form and functions of gross domestic product, labor force data, reserve banks, taxation and expenditure policies of governments, financial institutions and the markets in which they operate, and what economists usually call macroeconomics. Some know a lot about the history of economic systems. Most know a great deal of statistics and mathematics. But I shall emphasize what I think is most valuable in everything that

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economists know, or that at least the good economists know, with "good economist" circularly defined as one who not only knows it but believes strongly in its applicability and importance. A good economist knows how to employ the economic way of thinking.

Is it presumptuous to speak about the economic way of thinking? Aren’t there several economic ways of thinking? There are surely many ways to think about economic life, at least once we’ve decided exactly what we mean by “economic life” (which turns out not to be all that easy). But there is a particular perspective on human actions and interactions that regularly emerges when economists analyze the world that many economists recognize as uniquely the economic way of thinking. This article will try to explain and illustrate that way of thinking, with teachers of introductory economics especially in mind.

I like to summarize the economic way of thinking in a short sentence that states its basic assumption: All social phenomena emerge from the choices of individuals in response to expected benefits and costs to themselves.

Economizing Actions

It took me many years of practicing with this way of thinking to realize that it actually has two aspects, both expressed in the statement that it offers a particular perspective on human actions and interactions. One aspect of the economic way of thinking focuses on human actions. The other—the more difficult, more useful, and more neglected aspect, I shall subsequently argue—focuses on human interactions.

The former, which I shall call the action aspect, picks up the notion that economics is about economizing. To economize means to allocate available resources in a way that extracts from those resources the most of whatever the economizer wants. Scarcity makes economizing necessary. Anyone with access to unlimited resources does not need to economize. Keep in mind, however, that time is one of those scarce resources—except perhaps, when we are bored and time hangs heavy on our hands. The scarcity of time compels even those to economize who have more money than they know how to spend because they must ordinarily combine their scarce time with the resources their money can purchase in order to obtain what they want. A week in the Islands of the Aegean leaves less time,
unfortunately, for lounging on the Left Bank in Paris, no matter how huge your monetary income.

Because scarcity makes economizing unavoidable, everybody does it. We don’t always do it consciously. And sometimes we do it badly, even by our own standards: we allocate our resources in a way that we subsequently come to regret. Most often that occurs because we lacked some relevant information when we made our allocation decision. But information is also a scarce good. If all the relevant information were one of the resources constantly available to us, we would never make mistakes. In the real world, however, we have to sacrifice other goods to acquire additional information. We have to use time and energy that could be employed in some other way to investigate, for example, the characteristics and prices of the various television sets available for purchase. At some point we decide that the results of further investigation probably won’t justify the time and trouble it will take. We stop searching for further information, and we act. But we may turn out to have been wrong. One more telephone call, we learn too late, would have revealed a better deal than the one on which we finally closed.

Marginal Decisions

Economic theory has a pair of bright lights to shine on the economizing process: the concept of the margin and the concept of opportunity cost. Even very young students can learn to interpret their own actions in terms of marginal decisions and opportunity costs, often with a sense of gleeful discovery.

Economizing means making trade-offs. We would like to have more of one thing, but we give it up in order to obtain more of something else. The marginal concept highlights two important but easily overlooked facets of this process. One is that trade-offs don’t have to be all or nothing affairs.

This is important because additional amounts of almost everything become less valuable to us as we acquire more. Water provides a good example. People like to claim that water is “a necessity of life,” and then to draw from this simple “truth” a lot of unwarranted conclusions, such as a city “needs” a specific amount of water and that those who supply water must keep its price very low. The amount of water that people “need,” however,
will depend on how much they have grown accustomed to using, and that will depend heavily on how much they have had to pay for it. When water is inexpensive, homeowners maintain large lawns and farmers grow rice in desert areas. When water becomes more expensive, homeowners install water-saving devices in their showers and toilets, set their washing machines at lower water levels, and wash their cars less frequently and without letting the hose run the whole time they're doing it. Farmers shift from crops like rice to crops that don't require artificial irrigation.

Housing is another alleged "necessity" that turns out not to be quite what it originally seemed when we look at it through marginal spectacles. The real question is what quality and quantity of housing do people "need." Once again this will prove to depend largely on what people have grown accustomed to, which will depend in turn on their accustomed income and the price they must pay for housing. Families "need" fewer bedrooms when housing costs more, and fewer bathrooms when the cost of installing plumbing goes up substantially. The sensible economizer, whether a householder or a business decision maker, makes trade-offs by comparing the expected benefits of obtaining an additional or marginal amount with the benefits expected to be lost from giving up (trading off) a small amount of something else. "All or nothing" is the slogan of those who either aren't thinking carefully or are deliberately trying to stampede others into giving them something they want.

The other aspect of the marginal concept worth noting is the emphasis it places on the variety of margins or edges along which we can usually decide. When the cost of an option goes up, there are many more ways to react than we initially suppose. What would residents do, for example, if the councils of Auckland or Wellington decided to attack their traffic congestion problems by charging motorists for driving on crowded streets during busy times of the day; perhaps through an automated system of monitoring accompanied by monthly bills? Some few would choose to pay the tolls and drive just as much as before. Most motorists in these cities, however, would search for and discover a variety of margins along which they could adjust their behavior. They would eliminate those single-passenger trips for which they could find good substitutes, such as car pools, walking, consolidation of errands, buses, even the telephone, which is indeed a substitute for a car trip on some margins. We all like to in-
sist that "we are left with no choice" when someone proposes a change in circumstances that is not immediately to our advantage; and we aren't always lying when we do so. We may just not yet have had sufficient incentive to search for good alternatives.

Opportunity Costs
Marginal thinking directs our attention to incremental benefits and incremental costs and to the variety of directions in which choice can be exercised. The concept of opportunity cost focuses our attention on the ultimately subjective character of all costs. The cost of any action—and only actions, not things, can have genuine costs—is the value of the opportunity that will have to be given up if that action is taken. If the price of seeing a particular movie is $10, the cost of seeing the movie to the individual who is thinking about it will be the value—the subjective value, of course—of what he or she would otherwise have been able to obtain with those $10.

If an action does not require the sacrifice of any valuable opportunity, then it costs nothing to take that action. The relevant point for checking on cost is always at the margin, at that position in time and space where the decision maker currently stands. Should you fly or should you drive your own car when you want to travel from Christchurch to Dunedin. Which costs less? You will want to ask about the value of the time you give up when you drive as well as the value of the money you give up when you decide to fly. In calculating the money cost of driving, you do not want to include any costs that are not actually the consequences of this decision. Licensing and insurance costs and a substantial portion of your depreciation costs are not costs of driving your car but costs of owning it. So unless you are going to buy a car specifically to make this trip, you do not want to include the costs of owning as part of the opportunity costs of driving from Christchurch to Dunedin. The only costs relevant to your decision will be the value of the opportunities you give up to follow the course decided upon.

Restaurant patrons who eat food they don't want because they have already paid for it; householders who refuse to sell a piece of furniture that is only cluttering up their storage space because the best price they can get
is so much less than they (foolishly) paid for it; and business firms that consult their research and development costs in determining the best price to set for new products are all paying attention to past expenses, none of which are relevant to current decisions, because they do not represent the value of opportunities that will be forgone.

Will be forgone! Opportunity costs, the only costs relevant to decisions, in addition to being costs of actions and subjective costs to some particular person or persons, always lie in the future. Teachers of introductory economics can do a great deal to clarify their own and their students' thinking about costs just by keeping in the foreground these three interrelated aspects of costs.

Interactions: Coordinating the Actions of Economizers
The economizing process is so central to the economic way of thinking that many economists have mistakenly concluded that there is nothing more to it. They seem to suppose that interactions among diverse individuals can also be analyzed and understood as an economizing process, in disregard of the fact that economizing presupposes a unified point of view, which implies a single person in command. If the core problem for economic actions is scarcity, the core problem for economic interactions is a multiplicity of diverse and incommensurable projects. The solution to the scarcity problem is economizing; the solution to the problem of diverse projects is coordination.

Our economizing actions occur in societies characterized by extensive specialization. Specialization is a necessary condition for the increases in production that have so increased "the wealth of nations" in recent centuries. But specialization without coordination is the road to chaos, not to wealth. How is it possible for millions of people to pursue the particular projects in which they are interested, on the basis of their own resources and capabilities, in substantial ignorance and disregard of the interests, resources, and capabilities of almost all of the people upon whose cooperation their own projects depend for success? I specialize in writing about economics, which would bring me quickly to the verge of starvation were it not for the cooperation I regularly receive from editors, printers, paper manufacturers, postal employees, bookstores, teachers, and students, not
to mention all the farmers, manufacturers, and service workers whose efforts made it possible for editors, printers, paper manufacturers, and all the others to do for me the things I needed done. How do all these activities get coordinated?

That is the "miracle of the market." One of the economist's most important tasks is to demythologize this miracle by enabling people to see how and why it occurs. We do that by teaching the process of supply and demand, and by teaching it as a process of continuous, ongoing interaction among suppliers and demanders. This is not an economizing process. Each supplier economizes and each demander economizes, but their interactions cannot appropriately be viewed as an economizing process in which there is something to be maximized, such as wealth or utility. It is an exchange process, and as such it has no maximand. That's one very good reason for economists to suppress their inclination to pass judgment on market processes, usually by labelling them less or more efficient, and to be content with the sufficiently challenging and important task of explaining how markets work.

**Markets and Prices**

Successful explanations will focus on changing relative prices, because prices provide both the information and the incentives without which coordination could not occur. When demanders want more than suppliers have made available, competition among demanders tends to raise the price, which simultaneously induces demanders to get along with less and suppliers to provide more. Competition among suppliers tends to lower the price when suppliers want to offer more than demanders are willing to purchase. How quickly and smoothly this will occur is going to depend upon, among other things, the clarity with which relevant property rights are defined and enforced.

When governments try to "fix" prices or otherwise to constrain the terms upon which demanders and suppliers may exchange, both sides will search for other margins along which to further their goals. Rent controls, for example, don't prevent rents from rising in a situation where there is excess demand; the most they do is prevent the monetary component of the cost of renting from rising. When tenants want more space than own-
ers are willing to make available at legal prices, owners and tenants find alternative ways of negotiating the arrangements they prefer. One acquires proficiency in the art of economic thinking largely by learning to recognize the ingenious ways in which market participants overcome obstacles to mutually advantageous exchanges, obstacles created not only by government but also by ignorance and uncertainty. The great variety of techniques that sellers employ in order to practice price discrimination among their customers provides an endless supply of examples that always fascinate my students.

**Explanations, Not Solutions**

Skilled practitioners of this art do not so much solve social problems as solve puzzles and mysteries. Social problems don’t have “solutions,” or at least none that can properly be imposed by economists. The subsidies and protections that New Zealand governments once doled out so generously to both agricultural and manufacturing interests had consequences. The economic way of thinking enables one to discern these consequences more clearly and to predict the consequences of alternative policies. Doing so will often clarify the origin of the subsidies and protections, at least for anyone who believes that democratic legislators pay attention to the interests that are paying attention to them. But the economic way of thinking provides no formula for deciding whether the benefits that a policy confers upon one set of people are greater or less than the costs it imposes upon some other set, even when it enables us to assign fairly accurate monetary measures to these costs and benefits.

There are two principal reasons. One is that the value of money itself varies from one person to another, so that while money measures can and do provide a useful way of comparing the costs to some with the benefits to others, they cannot provide an *ultimate* resolution when interests conflict.

The other principal reason is that some very real costs and benefits slip through the net of the market. Recall the basic assumption of economic theory. All social phenomena emerge from the choices of individuals in response to expected benefits and costs *to themselves*. When the costs or benefits of actions spill over on to others in such a fashion that the actors
do not take them into account in making their decisions, economizing actions are leaving out potentially important data. Economists refer to such spillovers as externalities, and some go on to point to them as evidence of market failure. The latter is a mistake, another instance of economists' regrettable inclination to pass premature judgment rather than stick to what they do best: explain and predict. The phenomena of externalities offer economists a rich arena in which to practice profitably the economic way of thinking, and there is no good reason for them to declare the whole area off limits to their art by posting the label market failure. Externalities, like all other social phenomena, emerge from interactions that are the product of individuals' choices, and the economic way of thinking has a great deal to say about their origins and consequences as well as about the probable consequences of changes in the rules of the game that would produce quite different results.

The economic way of thinking remains useful even when we reach what some people think of as the outer boundaries of the market and where the border of government begins. Government measures and institutions are also social phenomena, and as such they are proper grist to the mill of all economists with a courageous faith in the basic assumption.

Learning by Doing
I have found it extremely difficult to discuss such a large topic as the economic way of thinking in such a short space. It ordinarily takes me an entire school term to introduce the economic way of thinking to my students so that it becomes an enduring component of their own thinking. A short piece such as this had to rely on a lot of vague generalities. We teach and learn the economic way of thinking, however, through a multitude of specific applications. That is certainly how I learned it and how I now try to teach it. And as Adam Smith once suggested, there is no better way to learn a subject than by being required to teach it term after term. So go to it, all you teachers of economics. You learn by doing.