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9
Economic Value

The questions we raise in this chapter are still subject to ongoing discussion and debate amongst economists, which is to be expected since the issue of what is valuable and how to measure it is at the heart of the subject of economics. We explore how previous societies and theorists assessed the essential sources of value, and then bring the discussion up to date with the practice of pricing nature.

9.1 CONTROVERSIES ON THE SOURCES OF ECONOMIC VALUE

Whether or not money has intrinsic value or only acts like a token to enable the exchange of goods with value is a key source of disagreement within economics. The Scottish philosopher David Hume (1955: 33) argued that money did not have intrinsic value but was useful as a tool to facilitate exchange:

> Money is not, properly speaking, one of the subjects of commerce; but only the instrument which men [sic] have agreed upon to facilitate the exchange of one commodity for another. It is none of the wheels of trade: It is the oil which renders the motion of the wheels more smooth and easy.

Adam Smith argued that traditional societies exchanged goods directly through a barter system, but, as Graeber (2012) has shown, there is no anthropological evidence of early societies relying on barter as a formal system of exchange. But as economies became more complex, money became the dominant commodity. As we saw in Chapter 8, money functions as a unit of account, meaning money can add up the value of the production of an economy, with the value of different goods/services represented by the market price. But if the value of money changes through time, how can we use it to measure anything? Indeed, summing the value of the production of an economy is clearly not as objective as using a tape measure to measure the length of a piece of cloth. Yet many economic theories assume that economic production can be measured by summing prices and quantities in this way.

The physiocrats were the first group of economists to propose a theory of value. As discussed in Chapter 2, they wrote about the economy in which they lived, which was mostly agrarian. Since people's livelihoods were derived from the land directly, or from craftwork based on products derived from the land,

they assumed that value only comes from land, which is a gift from nature. The physiocrats had ongoing disputes with rival schools of economics, including the mercantilists, who sought national advantage through trade and the accumulation of money rather than through natural resources.

The mercantilists favoured policies to support industry, including the granting of exclusive rights to certain companies; they favoured trade and the accumulation of surplus through selling industrial products. They also favoured the availability and even the subsidy of basic food to maximise the production of saleable goods. The mercantilists' preponderant goal was to run a trade surplus (exporting more than they imported), which would attract gold and silver into the country.

In traditional societies, a direct relationship existed between people and their land in the production of food and other commodities. However, with the advent of industrialisation, this relationship broke down and a large number of people were forced to sell their labour to ensure their survival. This economic change had a major impact on economic theory, with economists seeing people's work as the main productive force in the economy. Indeed, this changing social and economic background led to the development of a labour theory of value (as discussed in Chapter 1), especially amongst those who sought to improve the conditions of the industrial working class. The classical economists found value not in land but in labour: in the work and skill of ordinary people. The labour theory of value was expounded and developed by all the classical economists, but found its denouement in Marx.

Marx wrote about the industrial economy in which he lived. He distinguished economic actors on the basis of their 'relationship to the means of production'. The bourgeoisie control capital and therefore own the means of production; proletarians are not owners, and so must sell their labour to survive. In the Marxist tradition, the standard to explain the relative value of a commodity is the amount of labour socially required to produce it. Implicit in the classical labour theory of value is the inherent conflict between classes over how the product is produced and its distribution. For classical economists, including Marx, class conflict was assumed intrinsic to capitalism and central to its methodological analysis.

The neoclassical revolution of the late nineteenth century rejected the labour theory of value, and by doing so swept the labour/capital conflict under the carpet in favour of the much more benign assertion that the interaction of market forces obviates class conflict by producing an outcome beneficent to all (Dowd, 2004). The nineteenth-century founders of neoclassical economics assumed that an item's price had nothing to do with intrinsic properties, only with the amount of satisfaction (or 'utility') that an individual derived from its use. And, more specifically, it is the utility at the margin, that is, the **marginal utility** – or the additional utility obtained from the purchase of an additional commodity – that

gives an item its value. Hence, a good's value is its price, reflected by marginal utility.

The neoclassical revolution also transformed value and pricing from something objective –the labour theory of value – to something subjective, like utility, existing only in the mind of individuals. Neoclassical economists conflated value and price, assuming the two to be equal: a mistake that has continued to this day.

9.2 JOAN ROBINSON: THE PRODUCTION FUNCTION AND THE CAMBRIDGE CAPITAL CONTROVERSY

Joan Robinson (1903–83) is a rare example of a female economist who achieved great esteem during her lifetime (we had to wait until 2009 for a woman (Elinor Ostrom) to win the Bank of Sweden Prize in Economic Sciences, although she was a political scientist by training, and she had to split the prize with Oliver Williamson). Robinson worked in Cambridge with a group of economists deeply influenced by John Maynard Keynes. We like her book, actually a compilation of essays, *What are the Questions and Other Essays*, which is thought-provoking and just as relevant today as it was in 1980, but is sadly largely unheeded.

In 1954 Robinson published an article, 'The production function and the theory of capital', in which she attacked the view propagated by neoclassical theorists that capital can easily be measured and then summed to produce an aggregate or total capital. She was joined by other economists working in Cambridge, UK, most notably Piero Sraffa, and was opposed by the economists Robert Solow and Paul Samuelson, based in Cambridge, Massachusetts. Hence the disagreement became known as the Cambridge Capital Controversy.

About this controversy, Robinson (quoted in Cohen and Harcourt, 2003: 1) wrote:

> the production function has been a powerful instrument of miseducation. The student of economic theory is taught to write Q = f (L, K), where L is a quantity of labour, K a quantity of capital and Q a rate of output of commodities. He [sic] is instructed to assume all workers alike, and to measure L in man-hours of labour; he is told something about the index-number problem in choosing a unit of output; and then he is hurried on to the next question, in the hope that he will forget to ask in what units K is measured. Before he ever does ask, he has become a professor, and so sloppy habits of thought are handed on from one generation to the next.

Indeed, Robinson criticised the simplistic and unrealistic nature of the neoclassical growth model and in particular its production function, which was based on one produced good, Q, that can either be consumed or accumulated as capital, K. The economists in Cambridge UK effectively undermined neoclassicism thus:

- They stressed that capital and labour were complementary but could not be considered to be perfect substitutes, as neoclassical theory required. In other words, no matter how efficient machines might be, it is impossible to imagine an economy where production involved no workers at all.
- They also challenged the idea that the total amount of capital can be quantitatively determined and monetarily valued in a stable and consistent way.

And their critique was also based on three additional points:

- The 'fallacy of composition', which assumes that it makes sense to talk about production in terms of one homogeneous good, as if all goods produced in the economy were identical.
- The assumption that since goods produced in an economy are exchanged for money, we can consider them homogeneous and that their total amount, or even their total value, can be definitively established.
- That a model which claims to be focused on material production actually relies on a pricing system that cannot have any meaning without a system of money, which is absent from the theory.

9.3 INFLATION AND DEFLATION

Inflation and deflation are key concepts in economics and frequently are topics for discussion among politicians, policy-makers and businesspeople. **Inflation** is defined as an increase in the average level of prices. Notice two elements of this definition: (1) prices have to be increasing for inflation to occur – it is not enough to have only high prices; and (2) to measure inflation we consider an average level of prices. Thus, it is quite possible and quite typical that during periods of inflation some prices increase while others decrease. If we can think of inflation as too much money chasing too few goods, then inflation is caused either by too few goods in relation to the supply of money; or too much money chasing the existing goods. The solution depends on the cause. Inflation is a problem since higher prices reduce the standard of living, especially if the inflation is unanticipated.

Inflation is not new; it has existed in all cultures. In the sixteenth century, for example, when Spanish explorers remitted gold and silver to Spain following their conquests of the Americas, Spaniards noticed that prices were increasing. Although this was certainly not the first instance of inflation and not the last, it affected many people, and the causal link between increased gold and higher prices was quite palpable.

Hyperinflation occurs with severe inflation, usually as a result of excessive monetary creation. Although 'severe' is, of course, subjective, one accepted lower limit is a monthly inflation rate in excess of 50 per cent (Carlin and Soskice, 2015: 517).

Box 9.1   Values and Prices

Oscar Wilde famously defined a cynic as a person who 'knows the price of everything and the value of nothing'. This epigram is witty because it exploits the double meaning of the English word 'value' – and it offers a salutary lesson in the context of this chapter because, as just explained, neoclassical economists have confused these two meanings. In neoclassical economics, as we will shortly discuss in the context of cost–benefit analysis, only items with a price are included. A similar understanding lies behind the willingness of environmentalists to accept the practice of 'costing' nature through the valuation of ecosystem services, because of their belief that money talks, and therefore if something has a price it will acquire enhanced importance.

This is strangely ironic, since for most of us our ethical system of values suggests that the most valuable aspects of life – whether the natural world or the people we love – are priceless. Green economists seek to protect these ultimate sources of value and set them above the melee of the market. Environmental economists define these ultimate values as having 'intrinsic value' but, unlike green economists,[1] they do not find it spiritually problematic to attempt to put a price tag on them. Groucho Marx (1890–1977; no relation to Karl!) quipped about values in this joke: 'These are my principles; if you don't like them, I have others.' Like values, principles are the subject of deep commitment. If they are not, then they serve no purpose. In this sense, the values that we are committed to, the ultimate values by which we lead our lives, are beyond price because no amount of money would persuade us to abandon them.

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1.   While green and environmental economists might seem to be quite similar, they are not. To give one example: the former rejects neoclassical economics, while the latter is based on it.

Since inflation generally harms people on fixed budgets, you might assume that deflation is much preferred. **Deflation** is defined as a decrease in the average level of prices. The same two elements described above in the inflation definition apply. Actually, however, deflation is worse than inflation, since not only prices decline but also firm profits, asset values, wealth and wages. Deflation usually occurs during depressions (e.g. in the USA during the 1880s and 1930s; in Japan during the 1990s), and its solution requires a dramatic break with existing institutions.

Inflation is caused by too much money chasing too few goods; thus it is solved by either producing more goods and making them available, or by decreasing the amount of money. Since it is easier to do the latter, this is usually the choice. Deflation is caused by not enough money, and, like running an engine without enough oil, there is no quick and painless solution; it often requires an abrupt change from the existing economic regime.

It is interesting that in the USA, periods of deflation were associated with labour strife and social tensions. This should not be surprising, given the definition of deflation. During the 1870s many trade unions of all types formed – capitalist,

socialist and anarchist. In addition, the American Federation of Labor (AFL) was born (1886) as a federation of pro-capitalist trade unions. Likewise, during the 1930s deflation, aggressive unionisation of the nation's mass production industries (such as automobiles, steel, rubber, etc.) occurred, culminating in the formation of the Congress of Industrial Organizations (CIO) in 1937. In 1955 the AFL and the CIO merged to form the AFL-CIO, the most important voice of today's American labour movement.

Of course, no discussion of American deflation is complete without reference to the *Wizard of Oz.* The movie was produced in 1939, based on the book by Lyman Frank Baum (1900). Baum was an avid supporter of women's suffrage (as was his mother-in-law), and *The Wonderful Wizard of Oz* was published in a series of Oz books intended for children, yet the references to the economic and political issues of the day were numerous and quite obvious. Baum published his book in the middle of heated debate on the fairness of the US gold standard.

A gold standard directly links the amount of paper money circulating in the economy to the amount of gold. Thus, the amount of paper money available for everyday transactions can only increase with the amount of gold. Since gold was (and is) scarce, this benefited creditors and bankers but disadvantaged debtors (since the nominal value of the debt remained the same, but the real value of the assets used to repay the debt declined – in other words, the borrower was squeezed). Many people wanted to replace the gold standard with silver, given that it was obviously in greater supply.

The gold standard versus silver was a major theme in the 1896 and 1900 US elections. Here are just a few symbols from the *Wizard of Oz* book/movie. The Tin Man: the industrial worker of the Midwest, whose joints were enervated from disuse. The Scarecrow: the Midwest farmer saddled with debt. Dorothy: representing traditional values (it is interesting that Baum was an ardent suffragist, and, at least in our view, Dorothy is infused with progressive values). The yellow brick road: the gold standard. Oz: abbreviation for ounce – gold is measured in ounces. The Cowardly Lion: William Jennings Bryan, presidential candidate. The Wicked Witch of the East/West: financial interests of the east and west. In the book, Dorothy wears empowering silver shoes, which were replaced by ruby slippers in the movie, for cinematic effect.

From time to time, a gold standard is suggested as a means to instil monetary discipline, but if we are to progress toward sustainability, why lock one's currency – which should be local and energetic – with a scarce, artificially created commodity?

9.4 *TECHNIQUE 5:* COMPARING COSTS AND BENEFITS

Because economics as a discipline prides itself on its ability to measure, and on its willingness to deal in costs and prices, economists (especially neoclassical

ones) are often asked to calculate the costs and benefits of new projects. Their preferred technique is cost–benefit analysis (CBA), and in this section we explain how it works, along with its limitations. Like the concept of 'utility' that we discussed earlier, CBA is derived from the philosophical approach known as 'utilitarianism' (see Chapter 6). This philosophy suggests that our likes and dislikes in life can be counted, costed and aggregated. Policy-makers can then simply compare costs and benefits, assessing which is greater. If the benefits outweigh the costs, then the project should be undertaken. Although the first CBA study was conducted in France in 1747, on whether to build a bridge, a rigorous methodology did not develop until the 1960s. The steps in CBA include the following:

- **Define the project.** Define the problem, its scope and objectives. What is the event that will occur? What is the null situation (i.e. what exists without the event)? How can we compare them? For example, if we are considering constructing a tunnel under the River Thames, the null situation is not building a tunnel. At this stage it is crucial to ask if there are other alternatives to constructing the project.
- **Determine the relevant time period.** Since by definition the project occurs at a moment in time, the costs and benefits will also occur over time. Thus it is crucial to identify the time period.
- **Identify all stakeholders.** Living, non-living, past, present and future. What about the destruction of habitats which all projects involve? Who represents their interests? And what about stakeholders from the future?
- **Identify and predict the impacts,** both positive and negative. Neoclassical economics assumes that defining and measuring impacts is value-free and, since no ideology is involved, estimates can be made scientifically by the experts.
- **Monetarise all impacts.** All calculations are in monetary values, which means that a monetary cost must be calculated for any positive or negative impact of the proposed action. But why is money used? Although it represents a common metric, it is certainly not without problems. For example, money assumes that all values are *commensurable* – they can be readily transformed into one measurement scale, e.g. dollars; and that all values are *compensable* – a loss in one attribute can be compensated by a gain in another.
- **Compute 'net present value' (NPV) for each alternative.** NPV will depend on the chosen discount rate (see the next section). To calculate NPV we first calculate present value (PV) of all future costs and benefits, then subtract the initial outlay costs. (To calculate PV, see Technique 6 below.)
- **Conduct a sensitivity analysis.** Ask if slight changes in the beginning assumptions result in significant changes in the end results.

- **Choose the project with the lowest costs and the highest benefits.**
- **Revisit the project from time to time** to assess its progress or lack thereof.

While apparently straightforward and easy to use, the CBA approach has significant problems, calling into question its usefulness:

- The CBA assumes not only that we can monetarise costs but also that they can be measured with certainty. But many aspects of the natural world and human community that people value most highly are, literally, 'priceless'. What is the value of clean water? What is the value of functioning wetlands, forests and the ozone layer?
- The CBA is based on an elitist and outdated conception of scientific progress: an expert conceptualises the project and can, without bias, measure its costs and benefits. Since the 'scientist' is an expert, little input is needed from the subjects. It is also assumed that the expert is rational and non-emotional, and is calmly able to compare costs and benefits.[1] The CBA is antithetical to a democracy, in which decisions are made by the people.
- The CBA gives the appearance of being objective and transparent, and it often yields simple numbers that policy-makers can use to justify their actions. But is this really the way people make (or want to make) decisions affecting their livelihoods?
- Research shows that people find it extremely difficult to cost nature or put a price on the loss of a view, for example, because ordinarily they do not make decisions this way. Only the 'rational economic man' makes such decisions, as opposed to real flesh-and-blood people who have to live with the consequences of such decisions.
- Finally, a *discount rate* is used, since costs and benefits may not have equal real value at different periods in time.

The concept of a discount rate is important in economics and will now be explained.

9.5 *TECHNIQUE 6*: DISCOUNTING

The consequences of environmental losses and impacts are likely to be felt many years into the future. In the case of climate change, we may be talking about a generation from now, although, quite clearly, the effects have already started. This represents a significant problem for economists whose techniques are based on markets and prices, since they need to be able to predict prices many years

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1.   See Earle et al., 2017: 9–11 for an interesting critique of CBA from a student perspective.

ahead. To ostensibly achieve this they use a technique known as **discounting**. This translates the environmental impact from the future into the present. A discount formula is as follows.

If measuring a benefit:

$$PV(B) = B_T/(1+r)^T$$

where r is the discount rate, and B is the benefit accruing in T years' time.

If measuring a cost:

$$PV(C) = C_T/(1+r)^T$$

where r is the discount rate, and C is the cost accruing in T years' time.

This formula diminishes the impact of environmental destruction caused today by making our current actions appear less costly to future generations. One justifying reason is that today's economic growth will provide the necessary pecuniary resources for future generations to devise effective solutions.

When determining the costs and benefits of any economic policy or production process over time, the bottom line (and the most crucial question) depends entirely on the chosen discount rate. The higher the discount rate, the lower the future costs of current actions. But what discount rate should be chosen? Economists differ in their choices: some favour a descriptive approach, which assumes that the discount rate should equal the prevailing interest rate. If interest rates are relatively high, say 5–10 per cent, then the future environmental costs of current actions will weigh very little, since the discount rate significantly diminishes the present value of the distant future.

Here is one example. In November 2011, the UK's Department for Environment, Food & Rural Affairs (DEFRA) conducted a CBA of building a new tunnel under London's River Thames. Its estimated benefits were taken from an earlier study and then revised in line with general growth in GDP and adjusted using a standard discount factor, assuming that the tunnel will last for 100 years.

Relying on estimates from previous studies is known as **benefit transfer**, and is widely used, given that 'conducting a CBA can be both time-consuming and expensive. Often federal and state agencies require quantification of environmental costs and benefits but lack the resources to fund original analyses' (Harris and Roach, 2018: 163). But just because such practice is common, is it intellectually acceptable?

> Of course primary studies are preferable . . . if the resources are available. But benefit transfer does provide an estimate when information would not be available otherwise. Benefit transfer may be more suitable for some situations,

such as preliminary screening or policy options, and less suitable for other applications, such as determining damages in a legal case.

<div align="right">Ibid.: 162</div>

The economists in the Thames project also increased the estimate of benefits on the assumption that incomes will increase, and because (theoretically) rich people value environmental benefits more. Immediately we can see two of the major criticisms of CBA: it is not a transparent process, instead relying on a number of accounting adjustments (and assumptions) that are difficult for laypeople to understand; and, even worse, it gives the impression of scientific detachment, when it is obviously not (Earle et al., 2017).

Environmental and ecological costs are seldom considered in such projects. There is an obvious cost of greenhouse-gas emissions in the construction of the tunnel. No costs were included for the impact on wildlife or ecosystems, although it is hard to imagine how such a large infrastructure project could fail to impact on local habitats. The 'whole life costs' of the tunnel was estimated at £4.1 billion, while the benefits were estimated between £3 billion and £5.1 billion. In spite of the high uncertainty, it was concluded that the benefits would outweigh the costs. The report accepted that a large number of potential benefits and costs could not be priced and so were not included in the calculations. This was a judgement, based on unproven assumptions about unproven benefits, but one can easily see how these numbers will be used without the limitations cited in the report and in this critique, and then used to rationalise the construction of the Thames tunnel.

A more effective technique, we believe, for assessing the viability of a project from a pluralist and sustainable perspective, is the **deliberative evaluation process** (DEP) coupled with positional analysis.[2] Rather than experts making a decision, a facilitator guides the discussion, giving equal consideration to all stakeholders and all competing ideologies – no one ideology receives preferential treatment. Monetary and non-monetary impacts are separated. The methodology involves system analysis and system dynamics rather than partial equilibrium. Emphasis is on path dependency, irreversibility and the uncertainty principle. The facilitator can guard against the proceedings being usurped by a dominant interest or a powerful speaker. Compared to the elitist CBA, the DEP coupled with positional analysis is pluralist and democratic, although certainly not perfect.

9.6 *TECHNIQUE 7*: DISCOUNTING AND THE CONCEPT OF PRESENT VALUE

If you received $100 today, how much would it be worth in the future? It depends on two factors: the length of time the money is invested and the rate of interest.

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2.   For an extended analysis from a pluralist perspective, see Söderbaum, 2008: 99–119.

Obviously, the longer the length of time the money is invested, the more the money will be worth; likewise, the higher the rate of interest, the greater the future worth. The following simple formula enables us to calculate the future value (FV) of a present sum of money (PV):

(1) $FV = PV(1 + i)^n$

Where i equals the rate of interest and n equals the number of time periods.

As can be seen from the above equation, **Present value** – the value today of an amount of money received in the future – works backwards: it begins from a certain amount of money received in the future and determines its worth now. The rate of interest relates the present and future values. Notice from the formula that if the money is not invested (where $i = 0$), then the future and present sums are equal. If we divide both sides of equation 1 by $(1 + i)^n$ then we obtain a formula for calculating the PV:

(2) $PV = FV/(1 + i)^n$

Three things to notice in equation 2:

- Since the term $(1 + i)^n$ is in the denominator, the process works in reverse from the calculation of the future value; that is, the greater the interest rate, the less is PV now –since today's money can be invested for use in the future.
- The longer the time period (n), the less the PV, given that there is more time to invest.
- This underscores the role of uncertainty – pervasive in everyday life, but assumed away by neoclassical economists: How can anyone know the future with precision? And how can anyone know future interest rates? What does this suggest about inter-temporal pricing?

Let us work out a simple example:

Let's assume we are to receive $100 at the end of two years. We would like to calculate its present value, assuming that 8 per cent is the appropriate interest rate. Using the present value formula, our answer is **$85.73.** This amount tells us that receiving $100 in two years is the same as receiving $85.73 today. Question: What happens to our PV if we increase/decrease the interest rate? Or increase/decrease the number of time periods?

9.7 VALUING NATURE AND THE IDEA OF 'ECOSYSTEM SERVICES'

We have already made clear that our perspective in this textbook is that nature is the ultimate source of value, economic and otherwise; and that

our current ecological crisis suggests we are not effectively protecting our vital inheritance. Over the past two decades environmentalists have grown increasingly concerned about this failure to protect the environment, and some have argued that their case would be strengthened if policy-makers understood the value of nature in economic terms. This is how the idea of 'ecosystem services' arose: as a way of communicating the value of nature to people who speak the language of money.

A useful example is pollination and the threat to the world's bees. In all agricultural communities many plants are pollinated by bees, but bees are suffering a collapse in numbers as a result of habitat loss and pollution. Without bees, farmers would have to pollinate by hand. Economists have attempted to value the cost of this labour as an ecosystem service.

Several attempts have been made to calculate the global value of ecosystem services. One of the better known was by Costanza et al. (1997). After acknowledging the difficulty of valuing ecosystems, they estimated the total value of ecosystem services at US$33 trillion[3] within a range of US$17–49 trillion, more than triple the value of conventionally measured global GDP at the time.[4]

There are two problems with valuing ecosystem services:

- First, it assumes that the world and its creatures exist only to serve the human race – what critics call 'anthropocentrism'. Human beings are assumed to be at the centre of the world; everything else, non-living and living, is instrumental. (It should be noted, by the way, that the notion of instrumentality is built into the definition of a resource.) We prefer a biocentric, or ecological, perspective, based on the understanding that human beings are part of an ecosystem. Do bees, or any other species, only have value because of the services they provide us?
- Assigning a value to any species assumes that we can understand the complex role it plays in the whole system of life on Earth, where life is interrelated in ways that scientists struggle to understand, let alone to price.

Green economists are disturbed by this process of pricing nature. They argue that it amounts to 'commodification' of something that they see as having intrinsic value, perhaps even sacred value. If we can cost the Amazon rainforest in terms of the daily resource it provides to people who live there, what can stop a logging company from paying the local people to destroy the rainforest? These economists argue that even putting prices on aspects of the natural world assumes and facilitates sale in the market.[5]

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3. A trillion is 1,000,000,000,000 (a million million).
4. For an update analysis and an answer to their critics, see Costanza et al. 2014.
5. If you are interested in finding out more about the issues relating to valuing nature, we suggest consulting Pearce (1992) and Sullivan (2013).

THINKING QUESTIONS

If we cannot rely on money to measure the value of what is produced by a factory or a whole economy, how can we make an assessment about their relative success?

Can you explain the difference between the price of a good and its value?

How would you value a human life? Is this even possible? Does it matter if the person is from a developed or developing nation? Does it matter if the person is engaged in risky behaviour?

CLASS ACTIVITY

Construct a production function for the activities that occur in your classroom. What is the output? What are the inputs? What are the factors of production? How are they related? How could you measure each?

AREAS FOR RESEARCH

We can measure inflation by selecting a representative basket of goods and comparing their price changes over a period of time. Consider the main measure of inflation in your country: Is it characteristic of all consumers or just a few? Is the basket of goods representative of all consumers or just a few?

Conduct a critical and reflexive investigation on valuing non-market items. Depending on the context, these might be local environmental sites; threatened species that are an important part of their local bioregion; or social relationships, such as feelings for your best friend or relative. By extension, conduct surveys on other students, family members or members of the public to ascertain how they would carry out such a valuation. Focus on how the decisions and conclusions are reached.

UN SDG FOCUS

Goal #13 is: Take urgent action to combat climate change and its impacts.
Goal #14 is: Conserve and sustainably use the ocean, seas and marine resources.
Goal #15 is: Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss.

These are formidable tasks. The first step is to decide how to take account or measure the existing situation. How would you start? How would you measure the 'impact' of climate change? Can everything be monetarised? How would you value biodiversity, forests and marine resources? How would you 'combat', 'halt' and 'reverse'?

FURTHER READING

Aldred, J. (2009) *The Skeptical Economist: Revealing the Ethics Inside Economics*. London: Earthscan.

Brown, J., Söderbaum, P. and Dereniowska, M. (2017) *Positional Analysis for Sustainable Development: Reconsidering Policy, Economics and Accounting*. London: Routledge.

Heinzerling, L. and Ackerman, F. (2002) *Pricing the Priceless: Cost-Benefit Analysis of Environmental Protection*. Washington: Georgetown University Law Center.

Pearce, D. (1992) *Economic Valuation and the Natural World*. Policy Research Working Paper Series 988, Washington: The World Bank.

Söderbaum, P. (2008) *Understanding Sustainability Economics: Towards Pluralism in Economics*. London: Earthscan.

Sullivan, S. (2013) 'Banking Nature? The Spectacular Financialisation of Environmental Conservation', *Antipode*, Vol. 45, No. 1, pp.198–217.