



Economics in policy-making 1

An overview of economics

This briefing gives a basic introduction to economics, and outlines what you can expect from the rest of the series. Inside, we look at the relationship between microeconomists and macroeconomists (and where these people fit into real life) before diving deeper into the world of microeconomics, and its uses in policy making.

What is economics?

Defined simply, economics is the study of scarcity and choice. The world has limited resources, but humans have unlimited wants and needs. Economics is concerned with the systems society uses to try and solve this problem; and how scarce resources can be managed and allocated in order to best satisfy our human wants and needs.

Economics in flux

As a discipline economics is in flux, partly because of the on-going financial crisis. The fact that almost all economic experts failed to accurately forecast the seriousness, timing and structural nature of the crisis and subsequent sharp recession has brought many of the discipline's fundamental principles into question.

In addition, economics is struggling with two other crises:

Economists have historically dismissed the notion of environmental limits. But now, resource scarcities, combined with the impacts of climate change and habitat loss (all of which are driven by the current nature of growth) are feeding back into the system – reducing our ability to grow in the same way. Rather than being marginal these environmental issues have impacts

at the heart of the economy. This too has presented fundamental challenges to economics.

The final major crisis facing economics is inequality. This has risen systematically for several decades and is now a threat to both economic and political stability.

These three fundamental challenges to economics are in mainstream debate from the Financial Times to the World Economic Forum (Davos) and from Nobel Laureates to the International Monetary Fund (IMF). Much of this debate is framed as a paradigm shift in economics but, as with all such transitions, this is not a quick, straight-forward process with a clear outcome.

These fundamental debates provide a critical context for this briefing series.

What are micro and macroeconomics?

Economics is often divided into two sub-disciplines – microeconomics and macroeconomics.

Microeconomics is the study of households, firms and markets. It analyses how households and firms make decisions about consumption and production; how these decisions affect the supply and demand for specific goods and services; and how this balance in turn dictates the price and quantity of particular goods and services within an economy.

From a policy perspective, microeconomics offers insights into how markets and public services are operating. It helps government spot situations where intervention is needed, and judge which type of intervention (e.g. regulation, taxes or subsidies) will be most effective.

Macroeconomics focuses on the 'big picture', examining national and regional economies as a whole.

Macroeconomists are mostly interested in economic aggregates, such as overall levels of employment and unemployment, the balance of trade (i.e. the difference between value of exports and imports), overall production levels within an economy (e.g. Gross Domestic Product - GDP), the rate at which overall production grows (growth), and the rate at which prices change (inflation).

Conventional macroeconomic policy aims to sustain the economic growth of an economy, minimise unemployment and foster a low, stable inflation rate – all while maintaining balanced public finances and a healthy trade balance. Needless to say, these goals are often in conflict.

Key macroeconomic policy instruments include:

- **fiscal policy**, which refers to government spending and taxation (both the total amount of each and, more broadly, where tax revenue comes from and where it is spent);
- **monetary policy** – the setting of interest rates and quantitative easing (which effectively means printing money);
- **exchange rate policy** – the fixing of exchange rates; and,
- **capital controls** – the placing of direct controls on the movement of capital in and out of the economy.

What do economists actually do?

When people think about economists, they tend to picture them as the people you see on television commenting on how the economy is doing, and forecasting what will happen to unemployment and growth levels in future.

Although the public sector (for example, the HM Treasury) does employ economists dealing with these macroeconomic issues, the majority of economists working in the public sector focus on the *microeconomic* issues involved in policy making. Every major government department employs such economists to analyse policy options and input into almost every policy document published.

What do these briefing papers cover?

This briefing series focuses on the kind of economic analysis that is most relevant when it comes to giving input to government consultations and other policy processes.

For the most part this will be microeconomic analysis, although some of the papers also cover important macroeconomic issues. (*Briefing 7, for example discusses GDP and its limitations, whilst finance and money are discussed in briefings 9a and 9b*)

Economic policy analysis: an introduction

The starting point for mainstream economic policy analysis over the past few decades is a highly simplified imaginary economy. This market functions under a strict set of abstract assumptions – assumptions which most reasonable people (including most economists) would agree to do be a very poor reflection of reality. These are as follows:

- Markets and well-defined, protected property rights exist for every single good and service – including global services like air and water, as well as by-products of consumption and production such as pollution.
- There are an infinite number of rational consumers, all of whom share several strong preferences. For instance, they prefer having more rather than less of things, and they prefer having a variety of things over having lots of the same.
- There are an infinite number of small firms producing these goods and services, such that none has any market power over the price set for them. All producers and consumers have a perfect knowledge of the market, and there is no uncertainty about the future.

The free market argument

It is often claimed that economists have mathematically proven that, in this simplified economy, the most efficient way to give everybody the goods and services they wanted and minimise waste would be through free market trading (i.e. leaving everybody to trade amongst themselves with as little government intervention as possible). According to their model, this would be the case no matter how wealth was originally distributed.

In this imagined economy, it would be impossible for a government or central planner to make someone better off without making someone else worse off, simply because the free market would have delivered a better outcome by itself. The “invisible hand of the market”, so frequently cited, would naturally find its way to what economists call an ‘efficient outcome’ – the best possible distribution of goods and services across the economy.

From this model, many theorists infer that markets, under the right conditions, are the most efficient way of organising production, distribution, and consumption – rather than relying on governments to plan centrally what should be produced and how. It is this notion that many free market advocates (often the wealthy, or those with substantial business interests) eulogise when they argue in favour of ‘efficient’ markets and against ‘inefficient’ government intervention.

The role of government

Microeconomists agree that markets are important, and often effective, ways of organising production. But rather than suggest that there is no role for government, they suggest there are several:

Redistribution

Even if the unrealistic assumptions of the idealised economy (the free market argument) were to hold in real life, the distribution of wealth throughout society or over time may be undesirable.

Therefore a key role for governments is in sharing out wealth through taxes, benefits and the provision of public services (which can be considered wealth in-kind).

Government microeconomists typically analyse the impact of tax or benefit changes on incentives for individuals and businesses, as well as on the overall distribution of wealth and income across society. Importantly, they also consider distribution over time – for example, across current and future generations and individuals over their lives.

(The latter issue is covered in more detail in briefing 5, which discusses discount rates.)

Addressing market failures

Market failures happen when freely operating markets lead (or are likely to lead to) suboptimal outcomes. In which case, microeconomists argue, the government needs to step in.

To spot market failures, microeconomists typically compare different aspects of a real life market to the assumptions outlined in the model of the simplified economy, to see if they line up.

For example, a market might be considered to have failed if:

- it discounted externalities which have no monetary cost (i.e. environmental pollution)
- certain actors within the market lacked the 'perfect information' needed to make the most savvy trading choices
- a market power imbalance had formed by one firm holding monopoly over a product
- the 'bounded rationality' of humans (who, for various social and psychological reasons, behave in ways that are technically irrational) got in the way of efficient trading choices.

This kind of analysis is used by microeconomists to judge what type of government action is warranted – be it regulation, taxes, subsidies, government service provision or property right enforcement.

Briefing number 8 explains and discusses different types of market failure and how they relate to different interventions in further detail and briefing 10 covers property rights.

Weighing up the options

When a government has various intervention options to choose from, economists play a key role in assessing which will work best. This is typically done through cost-benefit analysis.

More often than not, the process involves assigning values to various goods and services for which there is no readily available market value (for example, nature and the environment).

Briefings 2-6 describe and evaluate the different types of cost-benefit analysis used in policy-making.

Economics in Policy-making briefings:

- 1 An overview of economics
Sagar Shah
- 2 How economics is used in government decision-making
Susan Steed
- 3 Valuing the environment in economic terms
Olivier Vardakoulias
- 4 Social CBA and SROI
Olivier Vardakoulias
- 5 Discounting and time preferences
Olivier Vardakoulias
- 6 Multi-criteria analysis
Olivier Vardakoulias
- 7 Beyond GDP: Valuing what matters and measuring natural capital
Saamah Abdallah
- 8 Markets, market failure, and regulation
James Meadway
- 9a Finance and money: the basics
Josh Ryan-Collins
- 9b What's wrong with our financial system?
Josh Ryan-Collins
- 10 Property rights and ownership models
James Meadway
- 11 Behavioural economics – dispelling the myths
Susan Steed

CASE STUDY

Now the scene has been set for what economics is, how things are changing in the subject and some of the distinctions within economics, we illustrate the briefing in a marine context – in this case: Integrated Coastal Zone Management (ICZM). Where possible these case studies are adapted from official documents and publications. These are adequately acknowledged.

This case study, adapted from work by James Spurgeon,¹ shows how different economic approaches are relevant to ICZM.²

From a macroeconomic perspective, the coast and sea can be viewed in terms of how much revenue they generate overall, how much they contribute to the UK's Gross Domestic Product (GDP), and how many people are employed directly and indirectly in the marine and coastal zone. For some statistics and an overview, see the case study for briefing 7 ('beyond GDP'). A microeconomic perspective would focus on an individual tourism charter boat business (for example) and would look at profit and loss accounts for the business, measuring its income (charters that month) and expenditures (rent, loan repayments, staff costs) and necessary investment for the business going forward.

As you read earlier, 'economics' is a social science (or even a 'moral philosophy' as it was originally called) which studies the production, distribution, and consumption of goods and services. What this requires is the examination of human behaviour and the choices we make, in order to determine how to allocate limited resources between competing uses. The goal essentially therefore is to maximise benefits to society, which overlaps in principle with the goals of Integrated Coastal Zone Management (ICZM).

The economic perspective of ICZM covers alternative approaches that use different values-based approaches to support decision-making.

These include:

- **Financial analysis**, which focuses on prices actually paid in markets to assess cash flows as well as the financial viability of companies, organisations, and projects that use the coastal zone.
- **Economic impact analysis**, which deals with measuring the contribution and impact of projects on local, regional, and national economies in terms of spending, income, and jobs associated with the coastal zone.
- **Socio-economic analysis**, which investigates how livelihoods and well-being change due to the social, economic, political, and cultural aspects of individuals, organisations, and communities.
- **Economic welfare analysis**, which is a major part of economics that helps determine the best allocation of scarce resources to maximise benefits to society.
- **Environmental economics**, which is a branch of welfare economics studying the fundamental connection between the economy and the environment. Three core aspects of environmental economics, include environmental valuation (i.e. identifying and valuing environmental costs and benefits), market-based instruments (i.e. changing the way the markets work to account for environmental values), and Green National Accounting (i.e. changing the way development is measured by accounting for changes in environmental stocks – or 'natural capital').

Economic approaches can all add powerful arguments and evidence to help maximise societal benefits arising from coastal resources and correct market failures (briefing 8) which are hampering effective ICZM:

- **Financial analysis** can help management bodies and coastal businesses remain financially viable with an appropriate stream of sustainable revenues.
- **Economic impact analysis** can examine alternative development options, which maximise long-term revenues, jobs, and regional investment.
- **Socio-economic analysis** can shape decisions to ensure that poor and vulnerable people are considered and catered for.
- **Economic welfare analysis** can ensure that alternative projects, programmes, and policies provide the greatest long-term net benefit to society.

CASE STUDY

BOX 1: What kinds of values and analytical tools are used for each of these?

	Typical Values	Typical Tools
Financial values	Market values	Profit & loss, budgets
Economic impacts	Expenditures, jobs	Input: output models
Socio-economics	Livelihoods, wellbeing	Indicators
Economic welfare	Producer & consumer surplus	Cost-benefit analysis

All of the economic tools listed feature in planning relating to the marine environment. They are used in evaluating interventions when the market fails (overfishing, pollution, climate change...etc) and also to see who will be impacted by these interventions, by how much, and how.

Awareness of these tools, including knowing how and when they are used, is critical in understanding decision-making – the focus of the next case study.

Glossary

Key concepts in economics

Positive and normative economics

Economists like to make a distinction between positive and normative economic issues.

Positive economics seeks to describe and explain economic phenomena factually without making value judgements about them. For example, “if government were to introduce a tax on cigarettes, it is likely that demand for cigarettes will go down”, is a positive economic statement.

Normative economics expresses value judgements about whether certain outcomes are worse or better than each other, what the economy ought to look like, or what the goals of public policy ought to be. The statements “smoking is bad and therefore should be taxed”, and “the goal of public policy should be to reduce poverty” would both be considered normative.

Note: Many economists like to think of economics as a value free (positive) science – where normative judgements are left to others (such as politicians). But in practice, economic analysis almost always exercises value judgements by considering “more efficient” outcomes as more desirable than less efficient ones.

Pareto efficiency

Pareto efficiency is a key concept underpinning most economic analysis. An outcome is ‘Pareto efficient’ if it is not possible to make someone better off without making someone worse off.

In general, voluntary trade and exchange between individuals is thought to lead to improvements in terms of Pareto efficiency. This is because if two people enter into a voluntary transaction with each other, both individuals must by definition be either better off, or as well off as they were, as a result (otherwise it would not make sense for them to enter the transaction in the first place). If it is not possible to find a mutually acceptable trade, then it is probably impossible to make someone better off without making someone worse off.

Note: Most economic analysis compares the economic efficiency of outcomes, but pays little attention to the path taken to achieve those outcomes. The path taken can often have painful consequences for a small group of people in the short term, even if over the longer term everyone might be better off.

Opportunity Cost

Opportunity cost is a concept which describes the cost of an activity in terms of the value of the next best alternative. The opportunity cost of going to University, for example, is the money you would have earned if you worked instead.

When considering different policy options, economists recommend considering the opportunity cost in addition to monetary costs.

Endnotes

¹ Currently of Sustain Value, formerly of ERM.

² Adapted from: Spurgeon, J. (2008) Economics and ICZM factsheet: Bite sized introductions to Sustainable Development themes. An output of the EU funded SMAP III Technical Assistance project led by ERM.

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