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Microeconomics

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- Get a handle on supply and demand
- Understand the consumer decision making process and its effects within economics
- Weigh the effects of oligopolies and monopolies

Peter Antonioni
Manzur Rashid

Introduction

Economics is about many things. On one level, it's concerned with humanity's struggle to cope with scarcity and how it leads people to make choices about the things that should have priority. On another level, it's about the human quest for happiness in an uncertain world, and the ways people have found to achieve it. On yet another level, it's interested in how societies organise themselves from the bottom up, using markets as a way of trading with each other. But however you look at it, economics is a huge subject!

Microeconomics looks at economics on the smallest scales – individuals, consumers, firms – and uses that picture to build up an understanding of how more complicated parts of the world – markets, industries – work. Microeconomics has become a very big subject too, taking in everything from what kinds of decisions people make to the right way to measure and analyse those decisions. It's the part of economics that's like looking through a microscope as small creatures go about their business.

So that's what microeconomists do. The microscope, though, is a bit unusual. It's not made of glass but of tools, called models, which are ways of representing the world that you can use to examine real life. They're not real life itself – making a model of real life that was accurate in every way would be like the perfect global map in a Lewis Carroll story that ended up being the size of the entire world! Instead, models are guides to help you when you need to know what's going on in a particular situation.

Maybe you're thinking about starting a business – microeconomics can help with everything from working out how much to pay staff to knowing which markets to avoid. Maybe you're wondering whether a company is a good place to invest – microeconomics can help you figure out whether the market it's in would let the firm make profits. Maybe you want to figure out how to get the best price for something you want to sell – microeconomics can help you work out how to auction it to get the highest price. In all these places in life, microeconomics can help you figure out an answer.

With all that, please come and join us as we tell you more of what this book is all about!

About This Book

This book takes you through the most common tools and models that microeconomists use to make sense of a complicated world. The aspects that we cover include the following:

- What utility is and why microeconomists assume people maximise it.
- What a firm is and what it does.
- What happens when firms and consumers interact in a market.
- Why competition is better than monopoly.
- How to understand competition between firms, and how the results depend on what type of competition is going on.
- What happens when some people in a marketplace know more than others.

- How you can generalise – to some extent – the results from one market to all markets, and how that informs decisions you may make about distributing resources.
- How you can figure out which options a firm will choose to take when it has competitors who also want to do the best for themselves.
- How and why markets fail, and some of the things you can do about it.

Foolish Assumptions

Economists often make assumptions – they have to make models when they don't know exactly how things work in a specific case. Sometimes those assumptions can be foolish – something we learnt from Samuel L. Jackson in *The Long Kiss Goodnight* and Eric Bogosian in *Under Siege 2: Dark Territory*! In writing this book, we make some foolish assumptions about you:

- You're interested in putting together a picture of why the world is as it is.
- You're smart and you don't just accept a glib and easy answer – like us!
- You're interested in learning more about economics and are looking for a good place to start – maybe you're considering studying more at school or university, or adding to your impressive portfolio of professional skills.
- You're a citizen bemused by discussion of business news, and want to know how anyone arrives at the opinions they do.
- You're not frightened about using the odd number or bit of simple maths – we try to do nearly everything in

words, but economics deals with money and money comes in numbers and that's not something we can do anything about!

- You're sure, from the book's branding and its fun, accessible style and easy-to-read layout, that you'll gain more utility from reading it than from other activities, such as archaeology or knitting!

Some of or all these assumptions may turn out to be true. Whichever are, we hope that this book chimes with your desire to understand the wild world of microeconomics!

Icons Used in This book

To help you get the most out of this book, we use a few icons to flag up particularly noteworthy items.

This icon highlights handy hints for smoothing out your microeconomics journey.

Some of the ideas in this book are so important for understanding microeconomics that they need special emphasis – often because they're easy to get wrong! When you see this icon, you know that the associated text is something economists really want you to understand!

The world is full of pitfalls for the unwary. Here we stress areas for which you need to watch out.

Economists use technical terms to speak to each other – it's just shorthand usually, so that no one needs to go through pages and pages of the same things. When you see this icon, you know that you're being let into the clubhouse – economics is an inclusive science! – and picking up a piece of lingo that economists use to cut long stories short!

Theories are great, but ultimately economics is about the real world, and the best way to see what microeconomics can do is to see it in action. This icon tells you that you're getting something from real-life practice to help you get the idea!

Beyond the Book

But wait! There's more! We've not only put together a book that takes in a journey from simple microeconomics to complex models of competition, but also compiled some online bonus bits (at www.wiley.com/extras/microeconomics) to help you take things further:

- An online Part of Tens with suggestions for places to take your understanding of microeconomics to the next level – from how to deal with government to how economists test their models.
- Four online articles with further looks at the bits and pieces of microeconomics – from what 'economically rational' means to how you deal with the really long term.

- A handy e-cheat sheet to keep with you – at least mentally! – at all times.

Where to Go from Here

The great thing about a factual book like this one is that you don't have to worry about spoilers and can dive straight in anywhere you choose! If you've just seen the film *Dr. Strangelove* and you want to jump further into the wacky world of game theory in Part V, be our guest! If you want to think about why someone wants to break up a monopoly, move straight to Chapter 13 without passing Go! To see how economists think about pollution, check out Chapter 14!

Economists are fine with choice – trust us, we make a living *because* people are able to choose! However, if your choice is to start at the beginning, you also get to see how the whole subject unfolds, from simple ideas to more complex levels.

Of course the two approaches aren't mutually exclusive, and no reason exists why you can't do both – although obviously at different times!

With that, we wish you *bon appétit* !

Part I
Getting Started with Microeconomics

For Dummies can help to get you started with lots of subjects. Visit www.dummies.com to discover more and do more

with *For Dummies* books.

In this part …

- See how microeconomics looks at firms and individuals.
- Discover how microeconomics builds on people’s choices.
- Understand how consumers choose.
- Look at the ways firms make their decisions.

Chapter 1

Discovering Why Microeconomics Is a Big Deal

In This Chapter

- Introducing the areas that interest microeconomists
- Considering the central roles of decision-making, competition and co-operation
- Seeing that markets don't always work

As we're sure you know, *micro* as a prefix often indicates something very small, such as a microchip (a tiny French fry) or a microbrain (your arch enemy's intellect). Micro can also mean something that isn't small itself but is used to examine small things, such as a microscope (necessary to see your nemesis's minuscule brain).

Well, *microeconomics* is the area of economics that studies the decisions of consumers and producers and how they come together to make markets. It asks how people decide to do what they do and what happens when interests conflict. It also considers how people can improve markets through their actions, the effects of laws and other outside interventions. However you look at it, and despite the name, microeconomics is a huge subject!

Traditionally, people contrasted microeconomics with macroeconomics – the study of national economies and big phenomena such as growth, debt or investments. But

over the years, the scope of microeconomics has grown; today economists analyse some parts of what used to be macroeconomics – for instance, negotiations on loans – using microeconomic tools.

Microeconomists employ those tools to look at things that form from the bottom up, because markets build on the actions of individual firms and consumers. This approach involves starting with an account of how firms and consumers make decisions and building on that to investigate more complex things that 'emerge' from those decisions – such as how a market is structured.

In general, microeconomics works by building models of these situations. *Models* are mathematical – or graphical – pictures of how the world works given some basic assumptions. Models aren't reality; they're a description of something that resembles it. Like an architect's model of a house, they don't have to stand up to reality; they just have to provide a feeling for what the world looks like. Microeconomists use additional data to refine the models until they provide a more accurate picture. They also test models against real data to see how well the models work – the answer is usually 'variably'!

In this chapter we introduce you to microeconomics and its core areas of interest, and we touch on the fact that markets don't always work.

Peering into the Economics of Smaller Units

Microeconomics is fundamentally about what happens when individuals and firms make decisions. The idea is to think through those decisions and explore their consequences.

What happens – for example – when prices, say of ice cream, go up? Well, on the one hand, people are likely to buy less ice cream. On the other hand, firms may want to make more of it so that they can get more revenue. The result is a lot of unsold ice cream! Then people want to get rid of those stocks to avoid holding onto them, and they probably do that by cutting the price.

When does that process stop? At the limit, the only logical place to stop cutting the price is when exactly as much is sold as is made. This point is an *equilibrium* in the market for ice cream – a place where supply and demand are equal. We discuss equilibria more fully in Chapter 9.

When people talk about *market forces,* they're talking about the sum of all these decisions. No vast impersonal power called 'market forces' exists, just a lot of smaller entities – consumers and firms – making a lot of simple decisions based on signals that come from prices. That's really all market forces means.

The way markets work seems so impersonal because every one of the smallest units – small firms and individuals– makes up just a tiny fraction of all the decisions taken. Even the biggest companies or most powerful governments have limitations on their ability to influence the world. Microeconomists take this fact for

granted and explore cases where it looks like they're less limited as exceptions, not the rule!

All these smaller units do the best they can, given that ultimately they're acting with imperfect knowledge of a complicated world. People and firms can't know *exactly* how much they'll be earning next year or exactly how much they'll sell. They just look for ways of making decisions that give them the best chance of doing the best that they can – which is about all anyone can ask for in an uncertain world!

Making Decisions, Decisions and More Decisions!

One word that's central to microeconomics is 'decision'. Microeconomics is ultimately about making decisions – whether to buy a house, how much ice cream to make, at what price to sell a bicycle, whether to offer a product to this or that market and so on.

This is one reason why economists centre their models on choice. After all, when you don't have options to choose from, you can't take a decision! Deciding to make something or to buy something is the starting point for microeconomics.

To a microeconomist, decisions aren't right or wrong; instead they're one of the following:

- **Optimal:** Getting the best of what you want, given what's available (check out Chapter 6).
- **Sub-optimal:** Getting less than the best.

Of course, a model of decisions needs two sides:

- **Consumers:** Base their decisions on the value from choosing one option as opposed to another.
- **Firms:** Base their decisions on a measure of benefit – revenue – against costs (see Chapter 7).

This book presents a few ways that microeconomists look at these decisions. In Chapters 2–8, we use a framework for making the best decision given some kind of constraint – budget, time or whatever else constrains you – to show you how microeconomists look at individuals and firms separately. In Chapters 9–15, the famous supply and demand model shows you how different types of market lead to different results. And in Chapters 16–19, we introduce you to the set of techniques known collectively as game theory, which look at how individuals or firms (or even other entities, such as governments) interact with each other.

Addressing how individuals and firms make decisions

Economists look at decisions in a slightly different way from how you might expect. They don't have a model of all the things that you as a consumer use to inform your decisions. They don't know, for a start, who you are, or what all your values are. They make no assumptions about gender, ethnicity, sexuality or anything else (though applied economists may test what they know

about one population's decisions against a more general model). They just know that you need to make choices, and explore how you may do so.

Starting simply

Economists make the least possible number of assumptions about the decision-making process and ask what you'd do if you only wanted the best possible outcome. Here are the two basic assumptions:

- **The consumer is utility-maximising:** She seeks to maximise her *utility* – that is, the value of her choice (see Chapters 2 and 4 for more details).
- **The firm is profit-maximising:** It wants to maximise its profit – see Chapters 3 and 8.

These choices don't necessarily involve selfishness – a utility-maximising consumer can get benefit from helping other people and a profit-maximising firm may want to redistribute surplus profits to charitable causes.

Growing more complex

To begin with, these models are quite simple. If Billy Bob has £10 in his pocket and he wants to decide between having a burrito or a pizza, he'll get the meal that gives him most utility given that it costs less than £10. Simple!

But later on, the models start to incorporate all kinds of other things, such as budget constraints (which we discuss in Chapter 5): if Billy Bob's income goes up, will he buy more or less pizza? Or what about the utility

gained by other people: if Billy Bob's friends won't eat pizza with him (perhaps he chews with his mouth open and makes an unappetising noise), he may get less utility from the pizza. Eventually, even with simple assumptions, models can end up incorporating some pretty complicated reasoning!

When you look at this example from the perspective of the pizza restaurant, things also start off simple: the restaurant just wants to make as much profit as possible, working to reduce its costs to do so. But what if you build in competitors? What about if the shareholders of the pizza company – the firm has grown, adding layer on tasty layer! – have different interests from the managers? What if the managers don't just want to get costs down, but to keep competitors out? Again, the key is to start from the fewest justifiable assumptions and then build up as you get more familiar with models.

Even at the simplest level, models tell you plenty about reality. They can give you an account of how people and companies react to prices, and how this reaction changes as industries get more competitive or as companies get bigger.

Seeing how decisions come together to make markets

Markets are places – real or virtual – where consumers and producers come together to trade. In theory, the trades make both sides better off, though not necessarily to the same extent.

Markets co-ordinate people's desires for stuff with producers' ability to make stuff, but importantly with no one being in charge of the process! The only thing you need is that both sides respond to a price signal. That's it!

Microeconomists say that markets are *equilibrium-seeking,* which means that trading in a market ultimately leads to a point where as much is supplied as consumers demand (and no more or less). The concept of equilibrium is much used in microeconomics, especially in the supply and demand model that we introduce in Chapter 9. This model looks at 'partial equilibrium' or the equilibrium in one given market (for example, the market for tinned tuna, or the market for books). It's also used for a couple of special types of equilibrium:

- **Nash equilibrium:** A point where two people or entities are competing for something and arrive – separately – at a point where no one has an incentive to change their behaviour. (We cover this situation in Chapters 16–19.)
- **General equilibrium:** An equilibrium state that exists across a whole economy given certain conditions. This is used for the analysis of welfare, and we write about it in Chapter 12.

Of course reality gets very complicated and usually someone – often government, but sometimes private monopolists or property owners – wants to control the price, which is often not desirable. Take a rent control, for instance. Introduce too low a maximum rent and more people want to rent than people who're willing to put their house up to rent. As a result, setting a rent

control at a very low level just creates homelessness – more people trying to rent, but landlords withdrawing their properties from the market because the price is too low for them to bother.

What about if we set the rents at too high a price? Well, if the maximum rent is above the equilibrium in the market, it has no effect because landlords are more willing to rent at that price and so more enter the market. But fewer renters are willing to rent at that price, and so the result is an excess supply of rentable flats. As a result some landlords drop out – those that need the highest level of rent to make a profit – and the price falls until it reaches the market equilibrium again!

Controlling prices can have many other consequences too. The price signal isn't just an absolute number – say a price of £5 – it's also a *relative* measure: for example, this car costs more in other things you can do with your money than this sofa. The model of a consumer eventually tells you that the relative price encapsulates consumer preferences. When you affect the relative price, you affect choices *everywhere.* That's one reason why economists prefer almost any solution to one that affects relative prices!

Markets are themselves complex things in reality and vary widely from type to type. For example, financial markets are different in their scope, participants and trading outcomes to labour – jobs – markets. Microeconomists look at all these types of market starting with the simplest model, and then as they get more data on how they differ, they start to incorporate that into the models.

The great economist Alfred Marshall was the first to make a key point, though: a big difference exists between the practical results of *markets* in reality and the simulation that economists use – which he called *The Market.* When you encounter a type of market you don't understand, starting to analyse it by using the simulation is a decent idea. If you know more about the market, however, relying on a simple simulation may not work as well!

Understanding the Problems of Competition and Co-operation

Society reaps the benefit of all the things that innovation and production make through two different forces: competition and co-operation.

Many firms following their own interests leads to competition (we discuss perfect competition, which consumers usually love, in Chapter 10 and imperfect competition in Chapter 11). In almost all circumstances competition is a pretty good thing, because it leads to lower costs or more innovation. For example, if only one store operates in your area, it may be able to get away with selling milk for £2 a pint. But with other stores, the competition leads to the price falling.

Businesses are competitive in some ways, but they're also co-operative exercises where people have to work together to achieve common goals. Microeconomics studies co-operation as often as it studies competition, but it starts with competitive models to build the foundations. It moves on from that focus, though, looking at what type of circumstances lead people to choose to co-operate, and where the pitfalls of those situations can lie.

Even businesses that are competitors in one area sometimes form alliances in others – Apple's relationship with Motorola in the early 2000s being just one example.

Microeconomists are often accused of overselling the benefits of competition, but they also point out that co-operation can be perilous too. When a group of firms with large shares of a relevant market work together, the result is often harmful to the public, as Adam Smith pointed out. Working together in that way is illegal, not surprisingly! Similarly, a trade union where a lot of people work together to get the best bargain with their industry can have negative effects on anyone not a member of that union. Microeconomists go on to investigate all these possibilities.

Realising why authorities regulate competition

At some point, the businesses operating in every market in the world have to deal with the legal structures under which they operate. In general, a lot of basic conduct rules underpin every – legal – market – from ensuring

that your product is what you say it is to not exploiting market dominance. If the essential point of microeconomics is that organisation happens with no one in charge, why is this even an issue?

Well, markets in reality aren't perfect! Sometimes they impose costs upon people who aren't involved in that particular market. Sometimes setting a floor under the conduct of a given market leads to better behaviour! But perhaps the most interesting reason for regulation is because of what happens when a competitor gets too successful.

When that happens, the firm makes larger profits, which is good for shareholders. But suppose that conditions also mean that no firm can set up as a rival – maybe the costs involved in being in that market are too high or the successful competitor holds the entire supply of a key resource.

In general, the idea is that you don't want someone to get permanent advantage in a way that leads to too many losses for everyone else. At this point, competition law steps in and places restrictions on what a company can and can't do (see the next section), because the costs of runaway success can be very large indeed!

Considering Competition Law

Competition Law (called *antitrust law* in the US) is at the very top of things that a society can do to make sure that markets don't hurt the public good. The purpose is to ensure that if a market isn't competitive at least the costs can be minimised.

Competition law is the last line of defence against the worst kinds of behaviour, preventing the biggest firms from prejudicing competition.

The idea is that, although competition is good, stopping the biggest firms from subverting competition requires eternal vigilance. In practice, it means that part of the legal system switches from treating everyone equally to treating those companies with the biggest market shares differently from smaller ones.

Many rules are in place to stop large firms from subverting competition:

- **Limit pricing:** Makes it illegal for a large player to drop its prices below cost to deer potential rivals.
- **Merger rules:** Prevents a large player from buying out its competitors and ensuring that competition is achieved where possible.
- **Behavioural remedies:** Stops the largest competitor from owning a key resource. For instance, if you own a port, you aren't allowed to offer your own ships preferential prices to dock.

In all these cases, companies are treated differently because everyone recognises that if competition fails, everyone loses out in the long run – getting poorer quality goods at higher prices.

Microeconomists examine all these cases with models that compare competitive outcomes to those achieved by non-competitive organisations. In most situations, the intuition microeconomists form is that competition is good. But not always! In some cases, competitive markets just don't produce a good and in others the diversity of products isn't as good in a competitive market, and so economists – as a whole – aren't ideologues about this idea!

Investigating Why Markets Can Fail

If you look around the world, you find almost no examples of countries where absolutely everything gets produced through markets alone. Almost everywhere, markets co-exist with other systems: sometimes the government, sometimes philanthropy, sometimes even the 'command and control' structure of a military.

The ultimate reason for this situation is that markets, like anything else, sometimes fail: for example, where monopolies exist (see Chapter 13) or where adverse selection problems – Chapter 15 has the details – result in people who need health insurance not getting it. Or where you sell your land to a company with a polluting factory, making you and the company happier but certainly not all the residents living around you, who have to put up with the factory belching fumes (see Chapter 14)!

Economists tend to take a practical attitude to markets, perhaps more so than the general public suspects. Economists certainly don’t assume that markets can inevitably produce everything that everyone wants with no drawbacks. They believe that in some cases genuine price signals would help improve matters, and tend to believe that choice is valuable in and of itself, but that doesn’t mean that economists want to introduce markets in absolutely everything.

Most economists believe that markets sometimes need a helping hand, especially in two situations – when they don’t produce what people want and when they cost too much doing it. This is because markets have trouble pricing goods when all the costs of making those goods are upfront and not related to consumption of those goods. You can read more about these situations, along with the instance of markets producing what people don’t want, in Chapter 14.

Chapter 2

Considering Consumer Choice: Why Economists Find You Fascinating!

In This Chapter

- Getting to grips with utility
- Understanding how economists create a representative consumer
- Looking at people's buying preferences

Consumer choice is the backbone of most Western economies. You can choose to buy from among more items now than at any time in the past, and people are certainly taking advantage of the opportunity. Today in the UK, consumers undertake approximately 60–70 per cent of total national spending depending on how you measure it: that is, their spending is £278,000 million! Much the same holds for most developed economies. When you look at consumer spending that way, you can see why economists want to understand the consumer as fully as possible!

But consumers' actions and choices aren't easy to comprehend. People have individual preferences, ideas, backgrounds, histories, identities and all manner of complicated determinants that make understanding them, if you don't know them personally, a lot more difficult than you may think. This is a problem, especially if what you really want to understand isn't so much the

consumer in person, but the way markets, where the consumer is the buyer, behave.

As a result, economists have developed their tools so that an analysis of markets can make sense, even when they know very little about the individual consumer. These tools don't attempt to understand people in all their complexities, but instead represent what they may do in an abstract sense. The economic model of a consumer that we describe in this chapter may seem a very simplistic view of a person, but it's a view that's adapted for a specific way of looking at a specific type of interaction.

Ultimately, microeconomists want to lay out a set of conditions that explain how consumers come to their decisions in a way that makes sense – we describe what we specifically mean by 'makes sense' in this chapter – and how that then affects their behaviour in the marketplace. In this chapter we show you how to set the foundations of the microeconomist's view of consumers – how they behave and why – which you can use when building more complicated models (such as the ones in Chapters 4–6).

Studying Utility: Why People Choose What They Choose

Many views exist about why people choose what they do, with say psychologists and sociologists approaching the question in their own ways. In turn, microeconomists focus on one explanation for people making a given

choice over another one: that the choice delivers more utility.

Introducing the idea of utility

Utility is a tricky term to pin down (see the nearby sidebar 'The complex history of utility' for a discussion of some of the difficult elements involved). Economists focus on *utility* as simply the value of someone's choice, whether that comes from them trying to increase their happiness (or not) and whatever their motivation. To economists, the simple value is that for a person to make a choice, say, of whether to select tea over coffee, he must have gained a greater amount of utility as a result of that choice.

The complex history of utility

No single concrete thing called *utility* exists, and the meaning of the term changed over time, before economists settled on using the modern definition in the way it is now. Plus, utility generally doesn't get measured directly in any particular set of units, but is *revealed* when someone makes a choice between options. Despite the complexities, utility is at the basis of microeconomic analysis, and for some good reasons.

Philosophers in the 18th century were the first to use the term utility. These philosophers were concerned with understanding the nature of something else that can't usually be measured, *good,* in the sense of moral goodness! One group, often associated with the English reformer and thinker Jeremy Bentham, proposed an answer based on the consequences of actions – good actions tend to promote good consequences and bad ones bad consequences. This philosophy is called *utilitarianism*, and in its early versions, as laid out by Bentham, it attempted to refine the concept so that a formula could be used to determine how much of a good thing any given item was, from a cup of tea to a decision on making something. Later John Stuart Mill identified utility with happiness, and went on to argue that the ultimate guiding principle of goodness was whether it produces a greater happiness for a greater number.

Thinking about utility as aligned with happiness is a decent start, but other thinkers produced some objections that modern economics has accepted. The first objection comes from GE Moore, who pointed out that 'happiness' and 'good' have a more complex relationship than Mill would've liked. The second is that even if you take the moral position out of the equation, it's not hard to think about situations where someone may make a choice that yields less 'happiness'. A favourite example of ours is Mrs Doyle in TV's *Father Ted* who rejects a tea-making machine that 'takes the misery out of making tea'. ' Maybe I like the misery,' she tells the salesman.

Contrasting two ways of approaching utility: Cardinal and ordinal

You can look at utility in two, general ways:

- **Cardinal utility:** The less often used of the two options, cardinal utility *measures* the utility and so requires a unique level of utility associated with each choice in the bundle of goods (called the *consumption bundle*). Often, that utility is measured in an invented unit called *utils.*
- **Ordinal utility:** Measuring utility exactly isn't always the method chosen. Ordinal utility models preserve only the *ranking* information from the ordering of choices, so that they tell you the order in which things are preferred. To see how this approach can affect the way an economist chooses to use utility in models, we walk you through an example.

Consider the example of a consumer to illustrate the two options in practice. Allan has three possible goods (tea, coffee and cocoa) and has measured (in some bizarre way) the utility he receives from consuming a unit of the three delicious hot beverages available (see Table 2-1).

For a system of cardinal utility, you need to be able to ascribe a level of utility to each unit consumed, just as Allan does.

Table 2-1 Example of Cardinal Utility

Good	*Utility from Consuming the Good*
Tea	10
Coffee	7
Cocoa	5

As the table shows, Allan prefers tea to coffee and coffee to cocoa. Therefore, you can re-write the table so that Allan's preferences are expressed as ranks to provide the ordinal utility (see Table 2-2).

Table 2-2 Example of Ordinal Utility

Good	*Utility from Consuming the Good*	*Rank of Choice*
Tea	10	1
Coffee	7	2
Cocoa	5	3