AN INTRODUCTION TO ECONOMICS IN 5,000 WORDS AND A BIT

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Authors Note.

Many years ago when I was doing research as a Visiting Associate Member at St. Antony's College, Oxford, I shared a house with several grad students from various different disciplines who were studying for their D.Phil. I was struck by the number who asked me what economics was about and would I please write an elementary book some day, so that an intelligent and well-educated person could learn about it. I never forgot. This article is a simple introduction to the discipline, or at least as simple as I can make it. Economics courses tend to contain a lot of mathematics or a lot of diagrams, or both. This article uses neither. It might be useful to you if you are similarly intellectually curious; or if you are just starting a course in economics and looking for an easy overview; or perhaps are contemplating studying the subject and wondering what the heck you might be getting into. If the article interests you and you would like to learn more, please check out the link at the end. This takes you to a free book An Introduction to Economics *that sticks to using diagrams (lots!), with only the tiniest bit of algebra in one small section. This article is really an introduction to the book. Not counting that free book, I have written five others, the latest of which is* Going to University: the Secrets of Success, *Kewei Press, UK, 2009 This is designed to help sixth formers (grades 11-12) and assist them to adjust quickly and easily to university life and do well there. This could be you.*

What is economics?

Economics is a subject notoriously difficult to define clearly for outsiders: a formal definition might be that it is a social science that deals with the production, consumption and distribution of goods and services; in simpler terms it deals with how people produce and work, in order to survive in this world. Mainstream economics covers things such as how prices are determined in the market; how best to organise the economy for efficiency and growth, and what sort of things can prevent a perfect solution; how wages are determined; what causes undesirable events like inflation and unemployment and what can be done about it; and how and why countries interact through foreign trade and foreign investment.

Sciences attempt to be value-free and objective; economics is no exception, and for this reason words like "ought" or "should" tend to be avoided, as they are *normative* and the discipline sticks to facts which are *positive*. It has to be confessed that it is harder to be completely objective in the social sciences, dealing as they do with human beings and their behaviour, than in the natural sciences, which are concerned with the inanimate world and non-human life forms.

In life we constantly make choices and each time we decide to do something, let us call it "X", then we choose not to do something else, we can call "Y". Economists refer to this as *the opportunity cost,* i.e., what is given up to get what is actually chosen. It is most clearly seen when constructing a budget and deciding how to allocate money between competing uses, but it applies everywhere. It lies behind all cost calculations and cost curve diagrams: the cost is the price that has to be paid for person A to get to use the stuff (iron ore, the service of a worker, a delivery truck…) rather than let someone else (B) use it.

The study of the economy is traditionally divided into two sections, *microeconomics*, which looks at bit of the economy (think of looking down a microscope at something small), especially prices, what firms decide to do about price and output decisions, and wage determination. Then there is *macroeconomics*, which looks at the entire economy and as such is concerned with the size of total output, the level of inflation, the amount of unemployment, and also foreign trade. We will look at these in turn.

The determination of prices in the market and the system known as *the price mechanism*

Students used to be taught to chant in unison "prices are determined by demand and supply" and no doubt some still are. If we take an object (again we shall call it X) if no one wants it at all, then it has no price – there simply is no demand. Probably a wrecked and burnt out car would fit this description. If some people want X then it will have a price, as whoever owns X can sell it and use the proceeds for some purpose or other. Will the price be high or low? It all depends on supply and demand. Think of an auction: if there are two old pianos for sale and 12 people really want to buy one, the price will be bid up and up, and therefore be high. Supply and demand! But if there are 20 pianos for sale and again 12 people want a piano, the price of each will be lower. That is the way that prices are roughly determined in the world. We use diagrams or mathematics to show and analyse this in detail.

An increase in demand occurs if at the auction next week, say, 18 people turn up wanting a piano and there are still only two instruments to bid on. This increase in demand leads to an increase in the price of the pianos. Again comparing with the first week, *a decrease in demand* would occur if only 4 people turn up wanting a piano rather than 12, which would lead to a lower price than in the week before.

A decrease in supply? Instead of four pianos, the number falls, say to one, and with an unchanged number trying to buy one, the price will increase. Correspondingly, an *increase in supply* (with unchanged demand) causes a fall in price.

These simple examples illustrate the working of supply and demand, which operates outside auction rooms as well as inside them. Notice that the process of the analysis is to start in equilibrium then alter just one element, holding all the other features unchanged. In economics we mostly do this and then look at the result. This is called *comparative statics*: "comparative" because we compare two equilibrium states; and "static" because everything works through to equilibrium where things cease to change. *Dynamic analysis* is different as things keep altering over time. A course in elementary economics does not get this far but it is handled at a more advance level.

There is one objection to the theory of price setting which on the surface seems valid, but is in fact false. Some object that firms set prices and that is all there is to it – the theory of price is just wrong. However, if we think about it, if a firm sets it too high it will wind up with unsold stock, which is costly to store, but if it sets it too low the firm will run out of produce quickly. Either way the firm could do better: it is not *profit maximising*. If firms want to do as well as they can, they have to set a price that just clears the market, i.e. they sell it all but only just. So it's back to supply and demand! What if they do not profit maximise? Competition will eventually force them out of business. It is no accident that most economists have an inbuilt urge to promote competition wherever possible. Only those economists paid by organisations trying to cling on to a monopoly position tend to be against it. Are they bad economists? No, just like lawyers, they are paid to promote the interests of their client but they do not have to believe it implicitly. We will not even think about political spin-doctors.

<u>What about the operation of the price mechanism (market mechanism)?</u>

When a firm believes that it could make a profit by producing something, X, which perhaps has a relatively high price the firm moves in and does so. This increases the supply of X and drives the price down. As different firms in different industries constantly chase profits in this way, *resources* (land, labour and capital) keep being reallocated from what they are producing to doing something else, as someone hopes that they will make more profit in the new area. In this way, the price mechanism allocates resources to where they are most needed and high prices (indicating that people want to buy X), along with potentially high profits, act as signals to producers.

Why did I say earlier "this is the way that prices are roughly determined in the world"? Because things get in the way to prevent a perfect solution being achieved, particularly for society. Let us list some of these.

1. Some people own all or most of X so they can dribble it onto the market at a slow rate and get a higher price as a result *(monopoly)*.

2. Some people do not know what is available and where it is to be bought so they do not demand X at all *(information failure)*.

3. Some people have a lot of money and others have little or none *(unequal income distribution)* so that a few incredibly expensive cars, watches, yachts and the like are produced – there is a demand from the rich for these. But on the other hand, little food is grown and some people are hungry or starve; these are the really poor, who cannot afford to buy food, or at least not enough food.

4. Some people will not move from where they live to get a job elsewhere. The result is that firms trying to expand are unable to find enough workers *(factor immobility)*.

5. Some goods and services are provided in too small quantities for what are perceived as the needs of society, perhaps like health and education *(merit goods)*. Contrariwise, some goods and services may be over-consumed for society, perhaps cigarettes and alcohol, which contribute to ill-health and accidents in a country *(demerit goods)*.

6. Some goods and services might be needed by society as a whole but few individuals are willing to pay for them. Examples include the defence of the country, a police force, a court system for settling disputes, or street lighting *(public goods)*. As individuals who choose not to pay cannot be excluded from enjoying the benefit of such goods, either society goes without or we have to force people to pay in some way for the service.

7. Some goods and services, when consumed, might have an adverse impact on people other than the person consuming *(externalities)*. Common examples of this are pollution, congestion, noise, and litter. Such *external diseconomies* are common; but *external economies* that when consumed by X provide benefit to others may exist. These might include such things as:

- Training and education: when one firm trains workers and they subsequently leave, other firms get the benefit.

- Public education is widely believed to benefit society, so that many countries provide at least elementary education for free, outside the market system. If many cannot read, jobs will be unfilled, safety regulations will be flouted, and possibly crime rates would be higher as those without work opt to steal food rather than starve.

- Television and radio broadcasting which spread information quickly – again many countries provide at least one channel without charge. In attempted revolutions and coups, seizing the radio and TV stations is high on the list of the insurgents.

- Health provision: quickly treat those with tuberculosis and it does not spread to others.

All the above points prevent a free market system from reaching a perfect solution as to what shall be produced and in what amounts.

Wages and wage determination

Wages, like prices, are roughly determined by supply and demand. Again "roughly" as several factors get in the way of a pure market solution. The demand for workers comes from firms and organisations who want to hire people to work for them. The firm, if trying to be as efficient as possible, hires people until finally someone adds less revenue to the firm than it has to pay to that person as a wage. In the jargon it is called when *the marginal product* equals the wage. If the organisation pays out more as a wage than it gets back from the efforts of the individual, clearly it is not maximising profits.

<u>On the supply side there may be all kinds of restrictions</u>

Obvious ones include differences in intelligence, paper qualifications (degrees, diplomas, GCE A-level results…), physical strength, and the completion of a specified training programme, previous experience, and so forth. The need to meet such criteria tends to mean fewer people may be qualified or able to do a particular job.

We can list a few more general factors that can affect supply and prevent wage equality.

1. *Non-competing groups*: shelf-stackers in a supermarket do not compete for work with neurosurgeons in hospitals. A shortage of surgeons does not lead to shelf-stackers applying to do operations thereby increasing the supply of surgeons.

2. *Trade union and government restrictions*: may intervene in the process by establishing a minimum wage. The result of this usually means less employment of people overall, but a greater reward for those who can actually find a job.

3. *Labour immobility*: people will not always move to a new job. The reasons may include:

- Information failure (people unemployed in locality X do not know about jobs and conditions that are available in locality Y).
- Local factors that restrict movement, e.g. people with a state-supplied cheap house in area X will not give it up to move to Y.
- Pension schemes – workers who have paid in for years may lose some or all their pension if they move.
- Social groups like family and friends, or members of clubs – few people like leaving them and going off to new and unknown pastures.
- Knowledge and familiarity with the local scene, so that people know where it is best to go for food, entertainment, to buy things, or just find their way around. They lose this and have to start again if they move.
- Racial or religious ties to an area.

4. *Time lags*: it can take years before people become aware of problems locally and opportunities elsewhere, consider the matter carefully, and decide to change their occupation or move to a new area.

5. *Non-monetary rewards*: it is clear that not all human beings strive to make as much money as possible and some will take work that gives them satisfaction at a low wage. If this is not true, it is not easy to explain convincingly why so many choose to become teachers or nurses, or why some drop out of highly-paid positions in the finance industry in order to take up furniture-making and the like for a living.

Competitive circumstances and the theory of the firm

As noted, economists generally prefer more competition rather than less. Three different states of competition are widely recognised:

1. Perfect competition, which is at one end of the spectrum and, as the name suggests, is the most competitive situation of all.

2. Monopoly, or one firm supplying all (or almost all) of the output at the other end of the spectrum; and

3. Imperfect competition (also known as *monopolistic competition*) which is the bit in the middle; it is fairly competitive but with some restrictive features.

More minor variants, such as *duopoly* (two firms), and *oligopoly* (a few firms make up the industry, which is reasonably common in reality) exist but attention focuses on the main three above. In economic theory, attention is paid to the determination of price and output under each of these three different competitive situations.

Under perfect competition, price is the lowest and output is not restricted at all; resources are well allocated, although of the things that get in the way listed above, the items 3-7 above that prevent the price mechanism working properly can still produce a less than perfect allocation of resources.

Under monopoly, price and profits will be the highest and output will be deliberately restricted to achieve this; resources will be poorly allocated and income distribution will be worsened, as the monopolist really coins it.

With imperfect competition we are in the middle, i.e. middling prices and some output restriction; resources are reasonably well allocated to the demands of consumers but less so than with perfect competition and there will be some short-term widening of the distribution of income. Some observers claim there will also be faster growth in total output as the short-term high profits can be used for research and development, plus there is enough competition between firms to ensure that each tries hard.

Production theory

The theory of production deals with the use of *factors of production* (land, labour and capital), how much of each a firm will choose to use, with much attention paid to the case of labour. This, via something called *marginal productivity*, or how much the last person employed adds to total production, provides the foundation for wage theory. *The law of diminishing returns* states that after an initial period, the amount added to total output by each extra person must fall. This must be true if you consider a back garden devoted to vegetable growing. One person can do a lot; two people working it can do more; a third person would perhaps add a little more; the fourth might get in the way of others and total output might decrease a bit ..... By the time we get to, say, 200 people they will be shoulder to shoulder and no vegetables will be produced! From this law of diminishing returns we can derive the demand curve for labour, needed in wage theory (above).

The decision on how many people to employ and how much capital (*the choice of technique*) also derives from the theory of production; simply put, in an environment with a lot cheap labour, as found in many poor developing countries, firms use more people and less capital (*labour intensive techniques*) but in rich industrialised countries the reverse is the case (*capital intensive techniques*).

Managing the economy as a whole *(macroeconomics)*

There are 10 major goals, or economic areas of concern, that all governments in all countries can have. Each government, and political party, can choose which of them to place stress on, and which to take more lightly. Because some of the goals clash, a choice between them is often necessary. Each government or party could, and perhaps should, prioritise these in their preferred order, but few probably do. The way it mostly seems to

work is that there are often a few main policies established as central and from then on, the party or government may well be reactive, responding to events rather than being proactive and setting things running.

So what are these 10 main economic goals?

1. Inflation – avoiding or reducing it.

2. Unemployment – often reducing the level, but sometimes deliberately doing the opposite to cool down an over-heated economy.

3. Economic growth – usually we wish to increase it.

4. The balance of payments – either balancing it or aiming for a small surplus.

5. The value of the currency – in the UK this means maintaining the value of the pound, in the USA the value of the dollar, and so forth.

6. Improving the allocation of resources – this often means moving towards a more competitive market-determined solution; but the government has its own agenda too, such as it may wish to increase resources to education, defence, or the National Health Service.

7. The distribution of income – this often means trying to make it more equal, or at least paying lip-service to this.

8. The standard of living – a high standard of living is preferred, so increasing the level is often a goal.

9. Taking care of the environment – this is a relatively new goal, but one that is rapidly increasing in importance.

10. Avoiding unnecessary and undesired fluctuations in the above nine points.

As a quiet bit of fun, take a couple of minutes and pretend you are the Prime Minister, President, or person in charge of your country, and to see what priority order you yourself would choose. Then look at "Why it is difficult to get it just right" below. Being in charge is not always an easy job!

How can government try to manage the economy?

In a market economy there are only two main ways: monetary policy (altering the supply of money or the rate of interest) and fiscal policy (altering the level or structure of taxation).

In the case of monetary policy, since 1997 the government in the UK lost the ability to directly alter the rate of interest when it gave authority to the Bank of England's Monetary Policy Committee to do this. The government is represented on the Committee. The central goal of this Committee is inflation; it attempts to keep it within one per cent of the annual goal set by the Chancellor of the Exchequer. The other goals of government are not the concern of the Committee although it sometimes seems to broaden its own remit a little.

In the UK, fiscal policy is administered largely through the annual budget, in April each year. Such once-a-year changes do not provide a flexible policy tool, but the effects do come into play quickly, which is good.

Both these policies are used to alter the level of *aggregate demand* (the total level of private spending on consumption and investment, plus all government expenditure, including export earnings minus import leakages) in the desired direction, if the government wishes to depress the economy, it reduce aggregate demand which will depress the rate of inflation, increase the level of unemployment, and improve the balance of payments. The authorities can do this by increasing the level of taxation (fiscal policy) or the rate of interest (monetary policy). Both measures take money out of the economy: if a family has to pay extra tax it means

that less discretionary spending is possible; if the rate of interest is increased it means that repayments on many borrowings, including the important mortgage repayments, rise (which leaves less in the pocket for consumers to spend). It also means that firms wishing to borrow to expand or to fund the purchase of machinery etc.) find it will cost them more, so they postpone it wherever possible (reduced spending on investment).

Why it is difficult to get it just right

1. Information lags – we do not ever know where the economy actually is when a decision has to be made, only where it has been.

2. Information reliability – errors creep in; there never really is totally accurate information available. "Garbage in, garbage out" then applies.

3. Different policy measures have different time lags before they take full effect. This means that as policy changes some older measures probably have not fully worked through, the new measures kick in, and at varying speeds, so we tend to blunder along. Hopefully we are going in the right direction although this is not always certain.

4. Some goals contradict, so that there is no way of "getting it right" anyway! As one example, under normal circumstances, if we increase the level of aggregate demand to lower unemployment it tends to increase the rate of inflation, which in turn tends to reduce exports and increase imports, worsening the balance of payments. It also increases output and tends to widen the distribution of income.

5. We are not smart enough to get it right. As we are dealing with human beings and they have freedom to make new decisions and change, it is possible that we never will be clever enough. The historical record of what happens when we changed the rate of interest by half a percent may not apply the next time we do it.

The foreign sector: trade and investment

All the above was concerned with a domestic economy in isolation. In reality, no country is alone in the world and few wish to be isolated. There is a high economic price to be paid for isolation: slow growth, great inefficiency, and a low standard of living. Most countries choose to trade with others as a result.

Why do they do it? What are the gains from trade?

1. Comparative advantage – a country produces what it is good at (agricultural produce, light industrial goods, services such as banking and finance….) and sells these to the world. It then imports what it is not so good at from those countries which can produce the item more efficiently and cheaply. This explanation is the main reason for trade. If all countries were equally good at everything, why bother to trade? As a personal example, if you are extremely good at playing football and a rotten cook, it pays to earn a substantial income playing sport and eat out at restaurants or employ your own cook. Your comparative advantage is on the sports field not in the kitchen.

2. Economies of scale – if it is cheaper per item to produce in vast amounts, then countries can specialise in a few things and sell them to others in exchange for things that the other countries specialise in.

3. Variety – consumers in a country might enjoy some foreign products, import them, and sell stuff in return. Motorcar production in Europe springs to mind as a possible example as each country buys cars from the others.

4. Sheer absence of an item – it is difficult to grow bananas in Iceland or make refrigerators in the Saharan desert, so things that are lacking may be imported. Note that it is not impossible to grow bananas etc., in

Iceland, merely very expensive to do so; this suggests that this is often really a specific case of comparative advantage.

Despite the established benefits of trade, there seems to be a widespread instinct towards insulating the economy from foreign competition, i.e. protecting jobs and protecting the profits of domestic companies. Each individual sector would like to be protected, although it does not mind much if all other sectors are not. In fact, this would be the best outcome for the small protected part, as it would gain all the benefits of cheaper goods and services plus rapid economic growth, but without giving up a thing.

Since the end of World War Two, economies have gradually opened up and reduced the level protection although not at a steady rate. The views of economists, pressure from politicians such as Margaret Thatcher and Ronald Reagan, negotiations via a series of meetings at the international level, and the widespread but not complete collapse of communism, have all played a part.

Globalisation is the ultimate stage of this process of opening up domestic economies by reducing protection, increasing foreign trade, and liberalising the flows of foreign investment. The world as a whole benefits from this; but there can be, and are, losses to some. At the national level, things get in the way of a perfect market solution, and the same is true of the world as a whole. While companies in major, powerful, and rich countries gain from investing in poor countries, the local people may suffer. The influx of foreign capital can easily damage or destroy the existing local industry and agriculture. It is a specific case of a poor market solution when faced with an extremely wide income distribution but it is now on the global scale – the market operates to supply what is demanded *by those with the money to spend.* Those with little or no money have little or no say in the pattern of consumption and, ultimately, in what people choose to produce in order to sell. So with globalisation some of the really poor countries and their peoples may lose out; many of those living in richer countries (including many of their poor) definitely gain; and the world as a whole is certainly better off.

Is globalisation then acceptable? Is it fair or just? This is an emotive issue in which morals, ethics, and values are often hotly debated. Those institutions that work to reduce protection and increase globalisation, such as the World Trade Organisation, are often attacked verbally and their officials and meetings physically. The antagonists are people who hold strong, some would say extreme, views that globalisation hurts the poor and is simply wrong. The protagonists say that the world as a whole benefits and most are better off. The reply to this is that some are definitely made worse off, they are already the weak, the poor, and the suffering and they are not compensated by the greedy and selfish winners. Some respond to this view that that is just the way the world is, and in addition, there is no going back. The reply to this response may well be unprintable.

It has to be stated that economics, and the workings of an economy, are amoral; morality, ethics and justice do not appear. We believe that the price mechanism, free trade, and ultimately globalisation produce a more efficient system, a higher standard of living, and faster economic growth which all work for the benefit of many. But it involves losers too and these are too often the poorest amongst us and the least able to cope. *Welfare economics* tries to deal with this and considers compensation possibilities

<u>How do we measure the degree of interaction with other countries?</u>

This is done in *the balance of payments*, an account that shows our financial dealings with the rest of the world. It was traditionally divided into two parts, *the current account*, which includes trade in goods (that we can see) and services (that we cannot see and are called invisibles); and the capital account, which roughly explained how the current account was financed. If imports exceed exports, a country either pays the difference by transferring foreign exchange or else borrows to cover this difference. (A popular exam question was to explain how the <u>entire</u> balance of payments could be described as in balance when there was a clear surplus or deficit in the current account; well you either pay the debt or still owe it!)

Since 1998 the UK has adopted a four part approach to the balance of payments but the distinction between current and capital account persists.

1. The current account: the export and import of goods and services + incomes flowing to and from abroad, earned by workers and also from investments.

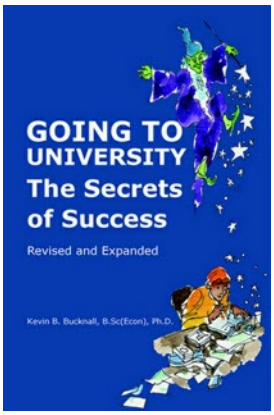
2. The capital account: changes in the financial size of ownership of fixed assets and what migrants bring in and take out as they come and go.

3. The financial account: changes in the financial size of assets the UK residents buy abroad and foreign abroad buy in the UK.

4. The international investment position: the total *stock* of assets that UK residents own abroad and foreign residents own in the UK. The first three items are money *flows*, not stocks.

Which part of the balance of payments matters? All of it. We look at the part of the balance of payments that gives us the answer to whatever question we are interested in. Having said that, attention mostly focuses on the current account and changes in it, because it shows how well we are currently doing.

That's it, economics in a nutshell. Warning! It is necessarily a limited explanation and misses out much; it is no more than a simplified, basic introduction to a complex and fascinating discipline. There are many articles and whole books written about almost all the individual topics that were discussed here in a few sentences or words. If you believe that you have got what you wanted, then you can stop reading now! On the other hand, if you feel that you would like to go further and understand more, then you can download and read the book of notes that explains this article in much greater detail. It also provides diagrams to illustrate and help analyse the issues; it can be found at: www.keweipress.com



The author's latest book is *Going to University: the Secrets of Success*, 2nd Revised and Expanded Edition, Kewei Press, UK, 2009. The recommended retail price is £9.95. An excerpt can be downloaded from www.keweipress.com A Kindle version is now available, priced about £3.09 (inc. VAT), or in United States dollars around $4.79. Details and links on the site below.

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