While economics is famous for its complex terminology and hard-to-fathom equations, it is in fact the study of our everyday lives. One of the UK’s most famous economists, Alfred Marshall, described it as “the ordinary business of life”.

The word itself comes from two ancient Greek words: oikos meaning house and nomos meaning rule or law; economics can be seen as the study of household management. Of course in today’s globalised world it also looks at how these rules work at national and international levels.

Why it matters
Economics is all around us, all of the time. A rise in your bus fare, the closure of a factory where your uncle works, or the reason you are going on holiday in Cornwall rather than the Costa del Sol this year can all be explained by using core principles of economics.

It also gives us an understanding of concepts featured in the news on a daily basis, such as the national debt, inflation, real interest rates, and balance of payments. Understanding how these work can help people personally. For example, someone who does not understand the difference between ‘real’ and ‘nominal’ interest rates will probably make poorer financial decisions (real interest rates have been adjusted to remove the effects of inflation).

On a larger scale, everyone from politicians to protest groups and bankers to business leaders use economics to try to predict how our commercial markets and financial systems will behave in the future and as a theoretical basis for them to make decisions. Economics helps us to understand the ways in which people behave and how society develops and changes over time.

Resources, choices and costs
A key concept in economics is the shortage of resources. If land, labour, raw material, time and brainpower were available without limit, there would be no need for a science of economics. But the fact that all these things – which economists call inputs of production – have a limited supply, means we need a system to decide how to divide them up.

Economics is therefore the science of how those choices are made and the impact they have. Every time someone makes a choice, for instance over whether to spend £10 on a book or film ticket or save the money in the bank, they have to give up the other opportunities. The same applies to a government deciding on building a new £10-billion airport or using the same money to offer people a tax cut.

The value of the option that you sacrifice is known as the opportunity cost. By looking at what would be lost by making a choice, it helps ensure that it really is the best option and that resources are indeed used most efficiently.
Microeconomics looks at how individual players in the economy, such as households and firms, interact. These interactions match what one party wants (demand) and what the other gives in exchange (supply). Each time you buy a chocolate bar from a newsagent or undertake the morning paper round, you are taking part in that process of supply and demand.

The collective weight of all the decisions on demand and supply made by millions of people sets the price for goods, services, assets and labour. Demand and supply therefore form the main principle that underlies all microeconomics. At a microeconomic level a focus on efficiency helps businesses succeed, creating jobs and delivering high quality products and services at the lowest possible cost to households.

“Microeconomics is what most professional economists do,” says Paul Johnson, director of the Institute for Fiscal Studies. “It is all about understanding how people, companies and governments make decisions and how and why they change their behaviour.

Macroeconomics, on the other hand, examines the whole economy – the total amount of activity by firms, households and the government. It also looks at how different countries interact with each other through trade and investment.

At the heart of macroeconomics is the flow of money around the economy. Households receive wages from businesses who receive the money spent by households. Businesses and households both pay taxes to the government, which in turn makes benefit payments to households and pays businesses for goods and services. In an open economy, businesses buy and sell to firms in other countries.

Added together, these payments make up economic activity, which is often measured as gross domestic product (GDP). Macroeconomists are interested in how fast GDP is growing (growth), how fast prices are rising (inflation), and whether jobs are being created or lost (unemployment).

“Macro-economics is all about how all the decisions made by millions of people over what to spend and save add up to the big picture of unemployment, inflation and growth,” says Professor John Van Reenen, director of the ESRC-funded Centre for Economic Performance at the London School of Economics.

At the macroeconomic level, poor countries that have applied sound economic policies have been able to reduce poverty. Developing new policies that can lessen or even eliminate poverty is one of the most urgent economic challenges.
Economics in action
There is a clear relationship between micro- and macroeconomics. The total level of output is the result of millions of choices made by individual households and firms. The ability of businesses and consumers to spend will depend on how well the economy is running. Economics can also make a vital contribution towards increasing people’s welfare and wellbeing.

“How should you design the tax system or the pension system?” asks Paul Johnson. “These are economic questions because how they are designed has a huge effect on how much people work and save, as well as on how much money they have. Getting the design wrong can be hugely costly.”

It’s a question of balance, according to Professor John Van Reenen. “Sometimes what is a good decision for an individual at the micro level may not be good for society as a whole at the macro level. For example, in a recession everyone starts cutting spending. But when everyone is demanding less, firms cannot sell their goods and services so they will cut back jobs forcing households to spend even less. This can become a vicious circle.”

The challenge governments face is to deliver strong and stable growth, keep inflation under control, ensure the economy creates jobs for its citizens and that households’ living standards rise over time. Economists constantly debate how to achieve these goals. The main tools are known as fiscal policy, which is the role the government can play by increasing or cutting taxes and public spending, and monetary policy, where the central bank seeks to control the money supply.
The Budget is one of the highlights of the annual political calendar. The Chancellor of the Exchequer stands up in the House of Commons and delivers a speech outlining how much money the Government intends to spend and where that money will come from, as well as how fast the economy is expected to grow.

How does it work?
The public sector plays a major role in the UK economy. What it spends makes up around £4 out of every £10 of economic activity. The public sector undertakes major building programmes such as roads, railways and hospitals. It also provides the salaries of many workers, such as teachers and police officers, and pays state pensions to the elderly and benefits to the unemployed and the sick.

To cover these costs, the tax system must receive roughly the same amount out of money. This comes from taking a share of people’s income, a portion of what they spend in the shops, even higher taxes on certain activities such as smoking and drinking alcohol and a proportion of the capital gains made on some investments. The Government also takes tax from companies on the profits they make.

Every year, usually in March, the Treasury publishes a Budget document known as the Red Book. This contains forecasts for how much the Government intends to raise in tax – and news on any changes in tax rates and new taxes being proposed. It also provides a breakdown of the limits of how much money each government department can spend; both on capital projects and day-to-day expenditure.

Carl Emmerson, deputy director of the Institute for Fiscal Studies, said: “Government borrowing dramatically increased as a result of the financial crisis and associated recession, climbing to record levels in 2009-10. The government is attempting to reduce this through a combination of significant tax rises and even more significant spending cuts.”

The difference between the money coming in to the Treasury and the amount going out is known as the budget balance. If tax revenues are greater than government spending then the budget is in surplus, but if spending exceeds revenues – as has happened in the UK in every year since 2001 – then the budget is in deficit. In this case the Government must borrow money from the financial markets.

Debt and deficit
One common mistake is to confuse the words deficit and debt when talking about the public finances. The public sector debt is the accumulated total of deficits or surpluses racked up over time. Each time the Government records a deficit this is added to the debt total. A surplus allows it pay back some of the debt.
Why does it matter?
Budget Day is when households and business owners find out whether they will have to pay more tax over the coming year. Most changes in tax rates and new taxes come into force on 6 April, which is the start of the Government’s financial year.

For households the key decisions are whether the rates of income tax – currently 20 per cent, 40 per cent and 45 per cent – will change, and whether the levels of income at which those different rates apply will change. Increases in VAT and additional charges (known as excise duties) on tobacco, alcohol and petrol will also affect households’ disposable income, although for the latter group that will depend on how much they smoke, drink or drive.

The Budget is very important for financial markets as it indicates how much the Government is expected to need to borrow. The IFS provides its own assessment of the public finances in its own annual Green Budget. Carl Emmerson said: “The Chancellor is now planning to borrow much more over this parliament then he intended back in 2010. The outlook for the UK economy has worsened and additional austerity is not planned until after the next general election.”

At the time of the Budget the Government sets out how much it wants to borrow and over what length of time. These loans are known as bonds or gilts and are essentially IOUs, which the Government promises to repay after a certain period of time, and in the meantime to pay a regular interest payment. The interest rate on the loan – also known as a yield – usually increases with the length of the loan.

Financial institutions that lend to the Government need to know that they will be repaid, as governments have been known in the past to default on their loans. If the budget deficit rises to a high level, the Government may have to offer higher interest rates to attract buyers of debt to compensate for the greater risk involved.

The Budget also sends strong signals about the direction of the Government’s policies. As the public sector plays such a key role in the economy, economists need to know whether the Budget tightens fiscal policy overall – by raising taxes or cutting spending – or loosens it by doing the opposite. This will affect both growth and inflation.

Economists disagree about whether and when the Government can use increases in spending and tax cuts in the Budget to stimulate economic growth to offset a slowdown or recession. Followers of the British economist John Maynard Keynes believe tax cuts put money in people’s pockets and encourage spending while public sector spending can create economic activity that in turn leads to job creation. Monetarists argue that people might not spend more as a result, as they realise they will have to pay back the extra borrowing needed to fund it in the form of higher taxes in the future, and that additional government borrowing might risk tighter monetary policy which could reduce private investment.

Fiscal rules
In order to convince the financial markets that they intend to keep a firm grip on the public finances, successive governments have imposed fiscal rules – fiscal being the word economists use for tax and spending policies.

The last Labour government adopted two rules in 1997: the golden rule that it would borrow only to invest over an economic cycle and the sustainable investment rule that the national debt would not rise above 40 per cent of GDP. The Coalition Government has pledged to reduce debt as a share of GDP in 2015-16 and to eliminate the structural budget deficit, excluding investment spending, within a rolling five-year timeframe.
The global financial crisis that hit in 2007 was the most serious economic shock since the Wall Street Crash of 1929. It led to a severe recession in the UK and many major countries. It has highlighted the exposure of the British economy to global financial changes and the need for banking reform.

**What happened and why?**

The years leading up to the crisis saw a period of rising economic growth, low inflation and falling interest rates. This created a mood of optimism among investors underpinning a marked increase in borrowing. Low interest rates encouraged investors to look for investments that earned more money, which led to excessive risk-taking.

The trigger was the bursting of a bubble in US house prices that had drawn new and less wealthy homebuyers into what became known as the **sub-prime** market. Investors around the world were able to invest in the boom via a financial innovation called securitisation. This created new products by bundling up lots of individual mortgages into a new product that included both poor-quality and high-quality mortgages. As house prices fell and mortgage borrowers could no longer afford their interest payments, institutions that had borrowed and invested heavily were left with large losses.

This caused a series of banking failures leading to the bankruptcy of Lehman Brothers in September 2008. In the UK, the Government had to step in to rescue Northern Rock, Bradford & Bingley, Lloyds TSB, HBOS and the Royal Bank of Scotland.

**One day in August**

When French bank BNP Paribas closed two of its funds that were exposed to the sub-prime sector on 9 August 2007, the world’s financial markets seized up. Adam Applegarth, then CEO of Northern Rock bank, described it as “the day the world changed”. Banks that relied on global money markets found that they simply could not borrow money to keep going because banks no longer trusted each other to repay their debts. This ultimately pushed several banks to the brink of collapse and required government bailouts.

**Why was the UK so badly affected?**

Financial institutions are much more closely connected to each other since governments removed barriers to moving money around the world. As banks found they were running short of money to meet their losses, problems spread very quickly to other institutions. This was known as a **liquidity** crisis as banks need money in the form of cash – known as liquid assets – to meet their immediate needs.

This was a big problem because all businesses rely on finance to function – when the banking sector contracts, it pulls down the rest of the economy with it. Crises in other industries are painful – car manufacturing, for example – but not fatal to the health of the economic system.

The strong presence of financial institutions in London and the city’s role as a global financial centre meant that it became the global magnet for capital flows for risky or semi-risky investments. This made the UK especially vulnerable when risks failed and governments had to intervene.

**Bill for the banks**

By February 2009, the UK had provided bailout funds equivalent to almost 20 per cent of GDP, compared with six per cent in the US. The protection of lenders during and prior to the crisis gave them an incentive to take more risks. It is known as the ‘too big to fail’ problem and leads to what economists call “moral hazard”.

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**SOCIAL SCIENCE FOR SCHOOLS**

**Economics**

**The global financial crisis**
Recession in the UK
The financial crisis led to a global recession, and in 2008 and 2009 the UK suffered a severe downturn. Over that period hundreds of thousands of businesses shut down and more than a million people lost their jobs.

The fall in the UK’s GDP was greater than any other since the Great Depression of the 1930s, and at the start of 2013 was over three per cent below its 2008 peak. Professor John Van Reenen, director of the ESRC-funded Centre for Economic Performance at the London School of Economics, said: “Since the crisis broke we have suffered a period of depressed national income that has lasted for even longer than in the inter-war period. Poor growth is the number one economic problem facing Britain today.”

As the economy has shown virtually no growth, house prices have fallen and unemployment has risen. However, the employment rate in the UK fell by much less than anyone expected given the fall of GDP and has recovered to a much greater extent than output. This seems to be because the UK labour market is more flexible now than in previous recessions: wages have fallen in real terms, reducing the pressure on employers, and the employment service has been better at helping people into jobs.

What are ‘real terms’?
When looking at things like growth in economic output and wages, economists often try to look through the impact of inflation. This is because if wages are rising at four per cent a year but inflation is also rising at four per cent a year, then workers cannot buy any more with their wages than they did a year earlier since prices have also gone up. If wages rise more slowly than prices this is known as a fall in real terms, as wages are effectively worth less.
Tackling the recession
The outgoing Labour government provided a fiscal stimulus during the 2008-2009 crisis that included a cut in VAT and extra spending. They planned to meet the problem of higher public debt by cutting spending and increasing taxes. Economists call this fiscal consolidation while politicians and journalists call it austerity. In 2010 the Coalition Government accelerated this fiscal consolidation. Most economists agree that this austerity programme has led to lower economic growth.

Professor Van Reenen said: “The Coalition overestimated the ability of the UK economy to withstand its tough programme of fiscal consolidation. The impact of these cuts is much worse in deep recessions when interest rates are near zero, when our main European trading partners are also locked into similar austerity programmes and when the cuts are loaded on to investment rather than current spending.”

In co-operation with its European partners and other major global economies, UK financial regulators have taken steps to ensure that financial institutions reduce the amount of risk they take on and have a greater protection against future crises in the form of higher capital reserves and more liquid funds to cover sudden funding gaps.

The UK also plans to ring-fence high street banks from their higher-risk investment banking arms. The question is whether this regulation will be adequate or not. Will banks find ways around the rules? Should there be a structural separation between the investment and high street arms of banks? Should high street banking be made more competitive by reducing the size of the existing banks and encouraging new entrants?

The size of the debt
As a result of the depth of the economic slowdown and the amount of public money needed to shore up failing banks, the UK racked up multi-billion pound deficits and had a debt of £2,205 billion at the end of 2012 (or £1,111 billion excluding the bailouts).

British households also hold a large amount of debt. According to the Office for Budget Responsibility, household consumer debt totalled £1,560 billion in 2010 and is expected to grow to £2,015 billion by 2015. Measured as a share of households’ disposable income – the amount of money they have left after paying taxes and National Insurance, it will grow from 160 per cent to 175 per cent over that period. The UK has the second largest amount of household debt, measured as a share of economic output, of the ten largest developed economies.
The study of happiness and human wellbeing has moved from being a fringe interest to become a mainstream part of economic research within the space of a few decades. Economists now seek to use the techniques of their discipline to calculate happiness and wellbeing, and establish what makes people happier. Research into wellbeing is slowly changing how politicians think.

Does money make you happy?
There is a link between money and happiness. Forty years ago, economists in the United States found that rich people were a lot happier than poor people, regardless of where they were in the world. “I would say that there’s overwhelming evidence that money buys happiness,” says Andrew Oswald, Professor of Economics at the University of Warwick, who led the ESRC Wellbeing and Economics research project.

However, it is not always true that a rise in income for all increases happiness for all. The balance of the evidence shows that even if a country becomes richer over time, its citizens will not necessarily become happier. Research by American economist Richard Easterlin found that although the US enjoyed continued economic growth for 50 years after the end of the Second World War there was hardly any increase in happiness.

One reason for this ‘Easterlin paradox’ may be that the impact of a rise in income is neutralised when other people’s incomes rise too. Separate ESRC-funded research by Professor Oswald found that other people’s incomes have a negative effect on our personal satisfaction. In other words, someone who receives a pay rise will be no happier if all his or her co-workers do as well. “People care about their relative income,” he says.

Money can buy happiness – but only up to a point. Richer people tend to be happier than poorer people, but if a whole society becomes richer, there is no evidence that they all become happier. Economists are developing new measures of wellbeing that could revolutionise the subject.

Effect of lottery windfalls
People who receive medium-sized lottery wins go on to enjoy significantly better psychological health.

Professor Oswald took 137 winners of UK National Lottery prizes of between £1,000 and £120,000 and looked at their responses to 12 questions in the General Health Questionnaire. He compared the results with those of a group with no wins and those with prizes of £1 to £999. He found that those with medium-sized wins were significantly happier than both groups after two years.
**Happiness is changing policy**

There is a growing realisation among policymakers of the need to move beyond focusing on purely financial criteria to judge the success of a policy on the wellbeing of society. Standard measures of a country’s wealth – such as the level of Gross Domestic Product (GDP) – are well known and widely collected. Yet if they are to do their job effectively, politicians and policymakers arguably have to go beyond GDP. They have to try to understand, and measure, the happiness and mental health of their country’s citizens.

In November 2010, Prime Minister David Cameron announced that the Coalition Government would start measuring progress “not just by how our economy is growing, but by how our lives are improving”. The UK’s Office for National Statistics is now carrying out happiness surveys. The outgoing Premier of China, Wen Jiabao, said “improving people’s wellbeing was the starting point and goal of all the government’s work”.

The ability to accurately measure happiness could have wider policy implications. For example, these measurements could be used to put happiness values on emotional damage, and change how the courts allocate damages in accident cases.

Professor Oswald says there was a growing consensus that countries needed to move away from measuring how well economies are doing according to acquisition of material things.

“Ultimately, politicians need to work out how to create happier citizens – and maybe we’ve been over-emphasising, possibly for 100 years, the role of income in all of that.”

Looking ahead, bringing together researchers from a range of disciplines – including psychology, economics, medicine, statistics, sociology, and management science – looks likely to lead to a better understanding of what really determines human wellbeing and how best to measure it.

**Does GDP measure wellbeing?**

“Our gross national product ... if we should judge America by that – counts air pollution and cigarette advertising, and ambulances to clear our highways of carnage... It measures neither our wit nor our courage; neither our wisdom nor our learning; neither our compassion nor our devotion to our country; it measures everything, in short, except that which makes life worthwhile.”

- Robert F. Kennedy Jr.

In his famous 1968 speech, the younger brother of US President John F. Kennedy claimed that the pursuit of GDP ignored the happiness of the population. GDP is the sum of the amount of money we spend as consumers, investment by businesses, spending by the Government and the difference between the amount a country exports and the amount it imports. It is the measure of economic growth used by most policymakers and central bankers; however, it does not attempt to measure wellbeing.
How do economists calculate wellbeing?

If the amount of money we have does not give a full account of our happiness then it is important to identify other factors that may contribute, and researchers have found ways to study wellbeing in a systematic, experimental way.

By asking a large number of people to assess their wellbeing on a numerical scale, economists can compare the answers according to criteria such as age, marriage, gender, physical health and diet as well as income. This has produced some surprising – and less surprising – results.

Health shows up very strongly in happiness equations; ill health towards the end of life is associated with a lot of unhappiness. There are positive effects from being young or relatively old with the lowest satisfaction occurring in middle age. One of the strongest happiness effects comes from marriage: one economist has put a value of $100,000 on it. There is little link between having children and being happy; if anything, having children probably has a slight negative effect on happiness.