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**The Shortest History of Economics
(published in the US as How Economics
Explains the World)**

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Parliament of Australia

2024

Online at <https://mpra.ub.uni-muenchen.de/122935/>
MPRA Paper No. 122935, posted 22 Dec 2024 11:51 UTC

Introduction

IN PREHISTORIC TIMES, THE ONLY SOURCE of artificial light was a wood fire. To produce as much light as a regular household lightbulb now gives off in an hour would have taken our prehistoric ancestors fifty-eight hours of foraging for timber.¹ By Babylonian times, the best lighting technology was a lamp that burned sesame oil. To produce the same amount of light, a Babylonian worker in around 1750 BCE would have had to work for forty-one hours.



An earthenware lamp, which used a cotton wick and oil or ghee.

Then came candles. Initially made from animal fat, they were time-consuming to produce (and smelt awful). Even in the late 1700s, the typical worker would have to devote five

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hours' work to producing candles that emitted as much light as a regular household lightbulb gives off in an hour. Through the 1800s came developments in gas lamps, which reduced the time cost of an hour of light to a few hours of work.

With the invention of the electric bulb, light got cheaper still. By the early 1900s, it took just minutes of work to buy an hour of light. Today, less than one second of work will earn you enough money to run a modern household lightbulb for an hour. Measured in terms of artificial light, the earnings from work are 300,000 times higher today than they were in prehistoric times, and 30,000 times higher than they were in 1800. Where our ancient ancestors once toiled to brighten their nights, we rarely even think about the cost as we flick on a light.



The progression of lighting technology: a candle, incandescent bulb, fluorescent bulb and LED bulb.

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Two forces have driven this remarkable change. Lighting technologies are better (and still improving by the day). And workers are more productive, which means that we earn more in an hour than our ancestors did.

The history of light illuminates some key themes of this book. Where prehistoric people had to do everything, modern workers specialise in what we do best. Markets allow us to exchange our output with that of other people. Prices create incentives to produce more when there's a shortage and less when there's a glut. Yet the market system is far from perfect. Unemployment, cartels, traffic congestion, overfishing and pollution are just a few of the problems that emerge when markets fail.

This small book tells a big story. It is the story of capitalism – of how our market system developed. It is the story of the discipline of economics, and some of the key figures who formed it. And it is the story of how economic forces have shaped world history. Why didn't Africa colonise Europe instead of the other way around? What happened when countries erected trade and immigration barriers in the 1930s? Why did the Allies win World War II? Why did inequality in many advanced countries fall during the 1950s and 1960s? How did property rights drive China's growth surge in the 1980s? How does climate change threaten our future prosperity? You'll find answers to these questions and more in this book.

Economics can be defined as a social science that studies how people maximise their wellbeing in the face of scarcity.

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It considers the behaviour of people as individuals, and how we work together in households and corporations. It focuses on how we interact in markets, in which buyers and sellers together determine the equilibrium price. Economics also considers what happens when markets fail, and how public policy might ameliorate poverty, climate change or price-fixing.

This is a story that blends microeconomics and macroeconomics.² Microeconomics is the study of how individuals make decisions. Macroeconomics looks at the economy as a whole. Too often, popular books about economics focus on one or the other. *Freakonomics*, *Discover Your Inner Economist* and *50 Things That Made the Modern Economy* introduce the reader to microeconomics. *The Return of Depression Economics*, *Slouching Towards Utopia* and *This Time Is Different* help explain macroeconomics. This book synthesises both perspectives. We'll move chronologically through history, touching on the decisions of individuals and the trajectory of entire societies.

Critics who think economics is bleak, moneygrubbing or narrow-minded like to quote Thomas Carlyle's description of the discipline as 'the dismal science', ignoring where the criticism comes from. Carlyle, who was writing in the 1800s, was a racist who believed that slavery should be reintroduced in the West Indies. The 'dismal' view Carlyle was attacking was that all people are equal. Like many economists, I wear the insult with pride.

Carlyle also disparagingly said, "Teach a parrot the terms supply and demand and you've got an economist."³ Supply and

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demand graphs can be handy, but you won't find them in this book. And you certainly don't need to have studied any economics to enjoy the stories that follow. Learning to think like an economist can change your life for the better. The secret of our discipline is that the most powerful insights come from a handful of big ideas that anyone can comprehend.

I've mentioned one of these ideas already: incentives. In sporting contests where there's a big first prize and a small second prize, performance improves. Runners go faster. Golfers finish in fewer shots.⁴ Incentives can even affect when we're born. When Australia introduced a 'baby bonus' for children born on or after 1 July 2004, that day set a record for the number of births.⁵ Why? Because expectant mothers delayed induction procedures and caesarean section operations to get the financial reward. When the United States changed inheritance tax rates, the timing of deaths shifted too: indicating that a small number of people died later (or earlier) to minimise their tax bill.⁶ There's a cliché that nothing in life is certain except death and taxes. In this case, tax rates changed, and death rates followed.

That's not to say that economics is all about greed. Elinor Ostrom, the first woman to win the Nobel Prize in economics, found many contexts – from fisheries in Indonesia to forests in Nepal – in which people cooperated to manage scarce resources. In her Nobel Prize lecture, Ostrom criticised the tendency of economists to design institutions for entirely self-interested individuals. Instead, she argued, 'a core goal of public policy should be to facilitate the development of

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institutions that bring out the best in humans'. Incentives matter, but I'll endeavour to capture Ostrom's optimism, and show that economists can be idealists too.

Another big idea of economics is specialisation. How many of us can provide a good haircut, replace a broken car windscreen, turn grapes into wine, or write a smartphone app? Given a few months, most people could learn to do each of these tasks with some level of proficiency, but unless you'd enjoy the experience, a better approach is to pay an expert, and focus instead on what you do best. If you spent your life aiming to become reasonably good at everything, you'd probably end up as the human equivalent of a Swiss Army knife – with a finicky knife, annoyingly tiny scissors and an impractical screwdriver. Job specialisation is one of the keys to the modern economy.

The process of making things has become specialised too. For example, some Chinese cities have become expert in making a single kind of product. Yiwu produces most of the world's Christmas decorations. Huludao makes a quarter of the world's swimwear. Danyang is known as 'spectacles city'. Taizhou, which has long specialised in bathroom products, has now become a global centre for innovation in intelligent toilets.⁷

As specialisation flourishes, trade becomes invaluable. Boeing's 787 Dreamliner includes batteries from Japan, wing tips from South Korea, floor beams from India, horizontal stabilisers from Italy, landing gear from France, cargo doors from Sweden and thrust reversers from Mexico.⁸ A typical

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smartphone could most accurately be labelled 'Made in the World'. By sourcing components and raw materials from the lowest-cost suppliers, it becomes possible to create items that would be unaffordable if they had to be built using only local materials.

Perhaps the most powerful illustration of specialisation came when designer Thomas Thwaites decided to make a toaster from scratch – using only his own labour and raw materials he had personally sourced.⁹ Thwaites obtained iron ore from a disused mine in England, copper from a mine in Wales, and mica from a mountain in Scotland. When a home blast furnace failed to make steel, he resorted to smelting iron ore in his microwave. The plastic casing came from melting down garbage. In the end, Thwaites's toaster experiment took nine months. If we value his time at the average wage in the United Kingdom at the time, the labour cost was £19,000, plus around £1000 for expenses.¹⁰ Thwaites's £20,000 toaster was about 5000 times costlier than if he had bought one at his local retailer for £4. Oh, and store-bought toasters actually work. When Thwaites plugged his toaster in, it lasted five seconds before it began melting down.

Another principle of economics is that big events are rarely driven by sudden shifts in norms or culture. More often, dramatic changes are due to new technologies or changing policies. If you want to understand why international trade boomed in the post-war decades, it helps to know about the invention of the standardised shipping container in 1956 and the reduction in global tariffs through successive rounds of

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world trade talks. If you want to know why basketball games today are more exciting than half a century ago, consider the role of the shot clock and the three-point rule. This book seeks to unearth the hidden economic forces behind wars, religious movements and social transformations.

The story of economics starts with the agricultural revolution that saw communities move from hunter-gatherer tribes to create the civilisations of Ancient Egypt, Greece and Rome. Trade between regions was enabled by water-borne transport. China's Grand Canal connected provinces. The age of sail connected Europe, Africa and the Americas – transporting agricultural products, manufactured goods and enslaved people in a highly profitable triangular trade.

The next major revolution was the industrial revolution, which kickstarted manufacturing and turbocharged economic growth. Alongside the new gadgets came intellectual breakthroughs, as the discipline of economics took shape. By the early 1900s, the innovation of the assembly line saw cars produced at ever-decreasing prices, and globalisation knitted the world together like never before. Two world wars and the Great Depression broke many of those connections, destroying lives, livelihoods and linkages.

For many in the advanced world, the post-war era was a period of shared prosperity, but growth was patchier elsewhere. In China, the early decades of communist rule were marked by capricious policies that undermined growth until the country's market turn in 1978. In India, the big change came in 1990. Growth across much of Asia saw a growing

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divergence between living standards in that region and those in slower-growing Africa. By the beginning of the twenty-first century, inequality within many countries had risen sharply.

Much of economics is now focused on questions of market failure. A great deal of competition policy is motivated by curtailing monopoly power. A central concern of the macroeconomics pioneered by John Maynard Keynes is reducing unemployment. Climate policy addresses the market failure that means pollution can be profitable for companies, but ruinous for the planet. Similarly, behavioural economics acknowledges that humans do not always behave like cool, calculating happiness-maximising machines, but tend to deviate in systematic ways from the rational rule. As the discipline of economics has evolved, both theory and data have allowed researchers to build better models of human behaviour, making economics more interesting and more useful.

But before we get to *Homo economicus*, we must start at the beginning, with the way that economics shaped our species, *Homo sapiens*.