

The Elephant in the Room

Why UK living standards may be lower in 2030
than they were in 2019 or even 2007 and what
we can do to stop this happening

John Mills

CIVITAS

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Institute for
Prosperity

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John has been Secretary of the Labour Euro-Safeguards Campaign since 1975 and the Labour Economic Policy Group since 1985. He has also been a committee member of the Economic Research Council since 1997 and is now its Vice-Chairman. During the period running up to the June 2016 referendum he was Chair of The People's Pledge, Co-Chairman of Business for Britain, Chair of Labour for a Referendum, Chair and then Vice Chair of Vote Leave and Chair of Labour Leave, which became independent of Vote Leave two months before the referendum.

John is the author of numerous pamphlets and articles and he is a frequent commentator on radio and television. He is Founder of the John Mills Institute for Prosperity, which campaigns for economic policies for the UK which will both rebalance the economy and get its growth rate up. The Institute advocates that policy should be far more focused on the exchange rate than it has been for many decades, and that an over-valued pound has been largely responsible for UK deindustrialising, leaving the country too dependent on

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services and too dismissive of the importance of manufacturing. He is the author or joint author of fourteen books, these being: *Growth and Welfare: A New Policy for Britain* (Martin Robertson and Barnes and Noble 1972); *Monetarism or Prosperity* (with Bryan Gould and Shaun Stewart; Macmillan 1982); *Tackling Britain's False Economy* (Macmillan 1997); *Europe's Economic Dilemma* (Macmillan 1998); *America's Soluble Problems* (Macmillan 1999); *Managing the World Economy* (Palgrave Macmillan 2000); *A Critical History of Economics* (Palgrave Macmillan 2002 and Beijing Commercial Press 2006); *Exchange Rate Alignments* (Palgrave Macmillan 2012); *Call to Action* (with Bryan Gould, Ebury Publishing 2015); *The Real Sterling Crisis* (with Roger Bootle, Civitas 2016); *Britain's Achilles Heel – Our Uncompetitive Pound* (Civitas 2017); *Economic Growth Post Brexit* (Bite-Sized Books 2019); *Left Behind: Why voters deserted social democracy – and how to win them back* (Civitas 2019) and; *The Road to Recovery: Reviving Manufacturing after Coronavirus* (Civitas 2020).

Introduction

This book was completed in the middle of the coronavirus pandemic. It is an updated edition of previous books I have written about getting the UK economy to perform better, but now with added urgency. It is particularly concerned with what we can do to recover from the current Covid-19 crisis, avoiding a lost decade of stagnant or falling incomes and relative if not absolute national decline.

It argues that the UK is much more vulnerable to a slow long-term rebound than many people hope will be the case. We are in this predicament because strategic decisions made over a long period by our policy makers have left the UK economy both heavily unbalanced and with a very low underlying rate of economic growth, thus providing only a weak foundation on which to rebuild our economy and to get it back on track after Covid-19. As a result, there is a big risk that UK disposable incomes will be smaller in 2030 than they were in 2019 or even before the 2008 financial crisis.

We may be slipping relentlessly further and further behind other countries, with many that were relatively recently much poorer than we were now overtaking us, but the pressure to do something radical about this situation has – up to now – been relatively muted. Stagnant or falling living standards and over-stretched public services, which have been the consequence of our relatively poor economic performance, particularly over the past decade, have caused resentment and discontent, but the UK is still a relatively rich country and life for most people has not been intolerable. This may be about to change.

Covid-19 has evidently done huge damage to our economy and, if recovery is as slow and difficult a process as our underlying

economic problems suggest may be the case, far from achieving a V-shaped rebound, it may take several years to get back to where we were in 2019. At the same time, we have some very expensive problems to confront in the near and more distant future – on climate change, health, pensions, social care, education and training – all of which are going to entail rising prices and pressure for increased taxes, biting hard into everyone’s living standards. This is why there is a real danger that we may well find that UK average disposable incomes will be lower – possibly substantially so – in 2030 than they were in 2019 or even 2007.

There are some people who think that such an outcome would not be that bad and that simpler and lower living standards are what we should be aiming for. This is not a view, however, shared by the vast majority of the population – who don’t want to see either their private living standards deteriorating or public services becoming more and more underfunded and overstretched. Most people well understand the need for sustainability and for economic growth to move into new less resource consuming channels, but they still want to be able to take advantage of rising productivity and the availability of more funding both for private enjoyment and to support and pay for high quality public services. So the issue is whether it would be possible to get our economy rebalanced and the underlying growth rate of the UK economy up to a point where there would be sufficient additional output to cover the costs of both recovery from the coronavirus and the other major cost increases we are going to have to pay for over the next few years, without making most people in the UK a lot poorer. The message in this book is that there are ways in which we could successfully meet this challenge, but only with some major – difficult but feasible – changes to the way in which we run our economy.

What would we have to do? We would have to increase the proportion of our GDP which we spend on investment and we would have to get much better returns on the money we do spend on our future than we have done recently. We would have to reverse the process of deindustrialisation which has led to such regional imbalances, poor job prospects in many areas, and to be a lot better at achieving the productivity increases which are so much easier to

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secure in manufacturing than they are in services. With increased manufacturing output we would have more to sell abroad, thus reducing, or even eliminating, the huge balance of payments deficit which we have been used to sustaining every year. We would then need to borrow less and to sell fewer of our national assets year after year to pay for a standard of living we are not earning. With a better-balanced economy, we could reduce both regional, inter-generational and perhaps socio-economic inequality as well.

How would we do all this? We need to shift our economy to being much more reliant on manufacturing and less on services. To make this happen we would have to make it profitable to site new manufacturing facilities in the UK rather than elsewhere, with a competitive exchange rate policy tailored to the needs of manufacturing rather than services playing a key role. We would need dramatically to increase investment, with finance directed strongly in this direction, concentrating on projects with the highest total or social rates of return. Essentially, we would have to shift our economy towards being driven by exports, import saving domestic production and investment led growth instead of import-hungry, debt driven stagnation.

Why aren't we already doing any – or all – of these things? It is not because they are impossible or even unusual. Actually, their achievement entails policies no different from those which more successful economies than ours generally pursue as a matter of course. Why haven't we followed suit? Why is it that we watched countries such as Japan grow at almost 10% per annum for years on end in the decades following World War II– emulated recently by China – while we put up with growth rates far below the world average for one decade after another? It is because, this book argues, we have a different history, experience and outlook – and intellectual power balance – compared to those of more successful countries than ours in the growth stakes. This seems to have made it exceptionally difficult for our politicians, our commentariat, our academics, our think tanks and public opinion to see what has gone wrong and to appreciate what needs to change to produce a more prosperous future.

We need, therefore, to look back over our economic history,

especially since the start of the Industrial Revolution, to see what this can tell us about how we got into our current low growth and economically unbalanced predicament. We have to pick out the key ideas and events which shaped the policies pursued in the UK over the years and explore the reasons and contexts in which they were chosen in preference to others which might well have worked much better. The objective is both to explain what went wrong and what we now need to change to get the UK economy to perform not only a bit better than currently seems likely, but with a step change to an altogether different level of achievement. Faced with the challenge of recovering from Covid-19, this is what we have to do if we are going to avoid wasting another decade in unnecessary and avoidable stagnation.

1.

Missed Opportunities

This book is about why the UK, which led the way in the Industrial Revolution, and which had one of the world's highest standards of living in the nineteenth century, has now fallen behind about twenty other countries.¹ Why is it that the percentage of our national income which we have recently devoted to investment – at about 17% of GDP – has been over a third below the world average of 25% and just less than half the 35% it has been in China?² Why has our productivity been almost static and why have most peoples' incomes been stagnant, if not falling, while our growth rate – averaging no more than 1.4% per annum over the last ten years despite our rising population – has been only 40% of the world 3.5% per annum average?³

Why have we deindustrialised more than any other comparable country, with manufacturing as a percentage of GDP falling from just under one third as late as 1970 to less than 10% now?⁴ How much has this got to do with the fact that our 25% share of world manufactured exports in 1950 has now shrunk to barely 2% – a 92% ratio fall?⁵ Should we not be more bothered than we apparently are about the impact that this has entailed in terms of lost good steady jobs and the foregoing of productivity gains, which are so much easier to achieve in manufacturing than they are in services?

Why have we had a huge balance of payments deficit – recently averaging nearly £100bn every year – financed by borrowing and selling national assets to foreign interests on a scale unmatched anywhere else?⁶ Why have we been living – even before the current crisis – in the middle of an explosion of debt, with the UK monetary base by 2017 being 3.35 times greater than what it was in 2000,⁷ while GDP (in money terms) over the same period rose by no more

than 104%?⁸ At the same time, the gap between the performance of London and the other regions of the county had widened,⁹ the disparities in opportunities between the millennials and those who were born 20 years earlier had hugely increased,¹⁰ and the rich had got richer¹¹ while the life-chances of many people on low incomes had steadily worsened.¹²

Of course, not everything has been doom and gloom. The UK economy, after declining from peak to trough by 6.0% during the 2008 financial crash,¹³ has grown a little year by year since then, although growth in our population, which went up by an average of 477,000 a year between 2007 and 2017,¹⁴ has diluted down the rise in GDP per head to less than 1% per annum.¹⁵ Unemployment at the end of 2019 was only 3.8% of the insured population¹⁶ – a historic low – although the quality of a lot of the jobs on offer was questionable. Inflation has been so low – recently well below the Bank of England’s 2% target – that even bankers are worried that it ought to be a bit higher.¹⁷ Living standards in the UK, although barely growing, are much higher than they are in most of the rest of the world¹⁸ and since 1945 – 75 years ago – we have lived very largely at peace. We have, therefore, much for which to be thankful. This does not, however, stop there being a widespread feeling that a lot has not been going well and that we ought to have been doing a lot better than we have done – all reflected in our fractious politics and the deep divisions in our society, which have recently manifested themselves.

There are also clear signs that years of mediocre growth have led to us downgrading – even before the current Covid-19 crisis – our expectations and our sense of what is achievable and what is not. We have become inured to performing poorly economically. We have come to accept that economic growth running at barely 1% per annum – as projected by authorities including the Bank of England¹⁹ and the Office for Budget Responsibility²⁰ – is the new normal – and about the best we can reasonably expect to achieve. The reality is that none of our political parties, with or without the impact of Covid-19, has any realistic plans for getting the economy to grow faster, however much they might like to see this happening. The academic economic world also seems to have little

to contribute on this front. Economics, as taught in our schools and universities and practised among think-tanks and consultants, has no agreed account of what causes economic growth and therefore what policies should be adopted to achieve it.

What concern there is about our low growth rate tends to involve solutions with little chance of achieving radical changes in performance. There is a broadly left of centre consensus which has a long agenda of supply side policies, such as more expenditure on infrastructure, better education and training, less short-termism, and easier finance for investment,²¹ but with little confidence that such measures – at least on their own – will really make that much difference. The right of centre, by contrast, advocates lower taxation, a smaller state, more privatisation and competition and deregulation²² as the way ahead, but again with no clear and convincing explanation as to why adopting this kind of strategy would really make a big difference to our economic performance. Across the political spectrum there is concern that capitalism has been getting a bad name, with too much cronyism and concentration of unaccountable power and influence, while confidence in our institutions and leaders wanes.

The case put forward in this book is that there is no good reason why any of this pessimistic fatalism should be accepted, that we could do much better, and that there are many pressing reasons why we need to do so.

The most important reason currently is the need to recover from the coronavirus, which is undoubtedly going to mean that UK GDP in 2020 is well below what it was in 2019 with the Bank of England, in May 2020, suggesting a drop of as much as 14%.²³ It seems unlikely that a vaccine or effective way of treating the coronavirus pandemic will be available on a mass scale before some time in 2021, which means that social distancing and lockdowns will have to continue in some form for many months. Inevitably, this is going to have a very damaging impact on the roughly one third of our economy which got shut down in March 2020. Based on the sort of performance we have seen from the UK economy recently, it therefore looks as though it may be several years before we could get back to the levels of output we achieved in 2019. Recovery

could, however, be much quicker if we could get the underlying growth rate up from the 1.4% it has been for the past decade to something closer to the world average growth rate of 3.5%.

We also need to brace ourselves to recognise that over the coming decade we are going to have to face up to some very substantial increases in costs, all of which are going to cut hard into our disposable incomes. These include preparing for and mitigating the costs of climate change – which could easily cost 3% of GDP every year, and maybe even more.²⁴ Education, and especially training, have been cut back by nearly 1% of GDP per annum over the past decade, mainly as a result of the impact of austerity programmes, and we badly need to restore these cuts. Healthcare costs are increasing inexorably, and it is very difficult to avoid seeing them rising from their current 10% of GDP, including the public and the private sectors, to 12% or so by 2030. Finally, there is roughly another 2% to be taken into account as our population ages, the number of people of working age declines in relation to those who are older or younger than working age, the percentage of people entitled to pensions increases, and we come to grips with the urgent need for better and more comprehensive social care. An 8% of GDP total hit on consumption, which currently makes up a total of a little over 80% of GDP,²⁵ means potentially a reduction of 10% on average in everyone's living standards if this is not offset by growth elsewhere in the economy.

It also matters a great deal internationally if our economy is performing much more sluggishly than the world average. It means that every year our position and influence in the world declines relative to other countries. Both our hard power – our military capabilities – and our soft power weaken. So does our example to the rest of the world as a country with democracy producing a reasonable degree of political stability. There has been an alarming shift in opinion recently, as increasingly large numbers of people despair of liberal social democracy as an effective way of running our political affairs.²⁶ Because of their relatively much more successful economic performance, the examples of autocratic systems of governance in other parts of the world, particularly in the East, may look increasingly appealing. Recent events in Hong Kong

and in Wuhan may have dented the appeal of the Chinese ways of running their affairs, but there are big risks in social democracy becoming increasingly associated with flagging economic output.

Leaving aside international competition, there are also obvious associations between the rise of populism and disillusionment with the traditional political parties and their apparent inability to get to grips with the country's economic problems, both in the UK and elsewhere in the West. It was stagnant incomes and rising divisions between different regions of the county that drove Brexit in the UK, which led to the election of President Donald Trump in the USA, and which have led to the rise of populist parties all over Europe. The rise of organisations of this type may be an understandable reaction to widely felt frustrations with existing systems and outcomes, but populist parties have generally got poor reputations for coming forward with rational policies to improve performance. Some of them also have traditions of intolerance, xenophobia and extremism.

We should also bear in mind that the UK is currently engaged with what are clearly difficult negotiations with the EU about our future trading and political relationships. The EU is primarily concerned with the security and stability of the Single Market and the Customs Union and is under pressure not to cut such a favourable deal with the UK that others are tempted to follow the UK example by leaving the EU. The UK government, on the other hand, is determined to establish a relationship with the EU which is as independent as those enjoyed by other states which have close trading ties with the EU, but which are not members of it. How these negotiations pan out is going to depend – as has always been the case – partly on politics rather than economics, but clearly the stronger the UK's underlying economic performance is, the better the UK's position will be to withstand pressure from the EU to subscribe to a subservient settlement which would negate the whole purpose of the UK exiting the EU. Rightly or wrongly, the UK decided to leave the European Union and it is vital that we make as much of a success of this as we can, while retaining as cordial relations as possible with our European neighbours.

Lastly, there is an important democratic argument for growth.

This is what people want and – for at least as long as poverty persists on the scale it does – they need. Of course, there are major potential conflicts between increasing GDP and containing and mitigating the impact of rising temperatures, resource constraints and population pressures. There is a pressing need to make sure that future increases in GDP take fully into account the green agenda. We will not be pulling our weight in this respect, however, if all we do is outsource more and more of the production of the goods we love to consume by subcontracting their production to China. Instead, we need to find ways of increasing GDP at the same time as we genuinely reduce our carbon footprint. Gathering together the consensus necessary to get this done is far more likely to happen if it is done against a background of rising incomes rather than those which are falling. The Gilets Jaunes protestors in France surely had a point when they told President Macron that they could not be expected to be concerned about the world’s ecological situation in 2050 if they could not see their way to making ends meet at the end of the current month.²⁷

There is therefore a very strong case for getting the UK economy to grow faster and to perform better, with faster growth and less imbalances and the message in this book is that this is all possible. Before suggesting what should be done and testing these prescriptions against our economic history and the way events have developed in other countries, it is worth turning to why economics, especially as currently taught and practised in the UK, has so little to say about what to do to get the growth rate up.

Economics and its limitations

It is hard to avoid the conclusion that a good deal of the reason why we are not doing better than we are is that economics as a subject has not developed along lines which have been as helpful towards practical policy-makers as they might have been. Although achieving a reasonable rate of economic growth is clearly a central policy goal for governments of all political hues and persuasions, economics as an intellectual discipline has never been seriously orientated to explaining what produces increased output rather

than other matters, particularly how existing output should be distributed. There is no generally accepted growth theory. Economics has almost always been much more concerned with how the national income is distributed than how to make its total size larger.

Until the start of the Industrial Revolution, the main objective of economic policy, other than the obvious ones of providing the state with sufficient funds for it to function and to pay for wars, was the accumulation of wealth, measured in gold and silver. It was Adam Smith (1723-1790) in his *Wealth of Nations*, published in 1776, who persuaded the thinking world, building on the perceptions of earlier pioneers such as William Petty (1623-1687), that the well-being of states depended essentially not on the accumulation of bullion but in the volume of goods and services which the economy produced every year, with the key role of markets in supplying human wants.²⁸

Adam Smith's contemporaries, David Ricardo (1772-1823), Thomas Malthus (1766-1834) and Jean-Baptiste Say (1767-1832), built on Smith's thought but with very mixed consequences for the progress of economics. Ricardo's ideas on the Labour Theory of Value, although based on those of Adam Smith, failed to stand the test of time in explaining how prices were fixed while generating an anti-capitalist bias – seized upon by Karl Marx – mainly because they were unable to supply a satisfactory explanation of the contribution to output from entrepreneurial capitalists. Malthus was mistaken about the inevitable immiseration of the working population as an unavoidable consequence of increased population always exceeding increased production, particularly of food. Say's theory that there could never be serious under-employment of resources, including mass unemployment among the labour force, because demand always equalled supply, was not only wrong but also undermined the case for any kind of demand management by the government.

The consequence was a generally pessimistic view of future output, with little role for the state in creating conditions which might lead to the economy expanding faster and performing better. Despite the fact that, as a result of the Industrial Revolution, GDP

in the UK had, from about 1750, started increasing considerably faster than it had done previously, there was little appreciation of the vast rises in living standards this was eventually capable of achieving. Perhaps this was because real blue-collar wages, particularly during the latter half of the eighteenth century, stagnated or fell before they started to rise during the first half of the of the nineteenth century.²⁹ The first major thinker who really appreciated the potential available from the Industrial Revolution was Karl Marx. *The Communist Manifesto*, published in 1848, stated that 'during its rule of scarce one hundred years [it] has created more massive and more colossal productive forces than have all preceding generations together.'³⁰

As the nineteenth century progressed, economics had little to say about what we would now call macro-economic policy, even among such wide-ranging thinkers as John Stuart Mill (1806-1873).³¹ Instead, it became increasingly concerned with micro-economic issues. The idea propounded more or less contemporaneously in the 1870s by William Stanley Jevons (1835-1882), Carl Menger (1840-1921) and Léon Walras (1834-1910) on general equilibrium, with all prices being in balance at the margin, led to economics being treated more and more as a science like physics or chemistry, with little or no normative content – and with correspondingly less impact on government policy. The most influential works, such as *Principles of Economics*, written by Alfred Marshall (1842-1924), first published in 1890,³² was much more concerned with supply and demand, marginal utility and the allocation of production costs than it was with macro-economic policy. When the depression struck at the end of the 1920s, mainstream economics, because of its concentration on micro- rather than macro-economics, had little to say about what should be done to counter the disastrous downturn in economic activity which the slump produced.

The huge levels of unemployment and output then experienced triggered a change in policy, in which the UK economist John Maynard Keynes (1883-1946) was a leading figure. His key insight was that Say's Law was not correct. While the money value of demand and supply of goods and services for consumption might always be equal and therefore in balance, the same was not true of

investment. There might be a chronic lack of demand if planned investment expenditure fell short of planned savings to finance it, unless expenditure by the state filled any gap which might be left. This opened up a major role for establishing conditions in which full employment ought to be possible – which was Keynes’s main aim. His principal preoccupation was not with policies to achieve higher rates of economic growth, although the conditions he envisaged could do so. Indeed, they did, particularly in many continental European countries which grew very fast during the decades after World War II; although the performance of the UK economy over this period was rather less impressive, with an average annual growth rate between 1950 and 1970 of 2.8%, compared with 4.7% on the continent.³³

Keynes himself was always sceptical about future growth. As he stated in his *General Theory*, published in 1936,³⁴ he believed that the marginal efficiency of capital – or the ability of advanced economies to find productive use for investment – was bound to decline in a wealthy community because ‘owing to its accumulation of capital being already large, the opportunities for further investment are less attractive.’³⁵ Indeed, Keynes thought that a plateau in economic output would be reached before too many decades had passed, when economic growth had ceased, by which time he thought that most wants would have been satisfied. ‘The economic problem is not’, he wrote, ‘if we look into the future – the permanent problem of the human race.’³⁶ The Keynesian Revolution did not, therefore, provide the clarion call for domestic policies to achieve faster economic growth that is sometimes claimed.

Keynes also played a major role on the international stage in designing the international trading and monetary arrangements which were put in place at Bretton Woods at the end of World War II. Backed up by the International Monetary Fund (IMF) and the World Bank, world trade was to be liberalised within a framework of fixed exchange rates tied through the US dollar to gold, which could only be altered with considerable difficulty. The result was that countries which had over-valued exchange rates and needed to get them down were pushed into deflation instead, while those with undervalued parities had little incentive to see their currencies

revalued. Although the Bretton Woods system formally came to an end in August 1971, when the USA dissolved the link between gold at \$35 an ounce and the parity of the US dollar, the pressure for countries with overvalued currencies not to devalue remains, with a strong downwards influence on domestic and hence world growth rates.

The successful growth period for the West during the decades after World War II came to an end in the 1970s when the constraints of the Bretton Woods system were removed. There was an explosion in credit creation, followed by a sharp recession as inflation soared, exacerbated by a fourfold increase in the price of oil. This was a development to which the Keynesian consensus had no effective answer. The scene was then set for the arrival of monetarism with its claim that it had a relatively simple and straightforward solution to the world's inflationary problem.

Monetarism was primarily concerned with inflation, with any impact it had on economic growth being subordinate to the battle against excessive price rises. There was, however, a strand of economic thinking post World War II which gave growth much more consideration. This was the theory, building on the Keynesian Harrod-Domar growth model,³⁷ developed from the 1950s onwards by Robert Solow (born 1924) and Trevor Swan (1918-1989), culminating in Solow's book *Growth Theory: An Exposition*, published in 1970.³⁸ This posits a world in which growth initially is the product of labour and capital inputs, all of which have diminishing returns. If using existing technology, therefore, as countries get richer, they will inevitably move towards a steady state of output as the diminishing benefit from any increased investment becomes equal to the cost of depreciation. Economic growth from this source will then cease, leaving the application of new ideas and ways of production as the only way of sustaining growth. Countries with relatively low levels of GDP per head and with relatively low amounts of capital equipment in use are therefore always inclined to grow faster than those which are richer and which have reached a steady state, based on existing technology, and which therefore depend on cutting-edge new developments for further growth. The additional growth from this

cutting-edge source is measured as total factor productivity, which essentially accounts for the growth that cannot be ascribed to additional inputs of labour and capital, and which derives from the exploitation of new products and ways of working. An important claim was that the sorts of conditions which are likely to lead to enhanced total factor productivity are most likely to be found in an environment with stable liberal institutions, such as the existing conditions in advanced western economies. The Solow approach was therefore a force for accepting the status quo rather than state activism to increase the growth rate.

Like any other theory, however, the Solow thesis depends on a number of assumptions, some of which are clearly open to challenge. In particular, there is little evidence that diminishing returns – although a staple of standard micro-economic theory – necessarily set in either for labour or capital as economies expand. Nor is it true that all capital inputs are homogeneous, as the Solow theory tends to assume, taking into account the widely varying returns which they actually produce. Perhaps most crucially, the Solow Theory implies that growth is bound to slow up as economies become richer, thus producing resignation and the acceptance that this will inevitably happen, rather than challenging whether causation really operates in the way in which the Solow approach suggests.

Meanwhile, in the 1970s and 1980s, stagflation – a vicious combination of inflation and unemployment – became the norm across much of the western world. Driven by fear of price rises running out of control, monetarism then came to the fore, although, in practice, the link between the money supply and inflation proved to be much weaker and less reliable than adherents to the new orthodoxy claimed it would be. The notion, however, that controlling inflation was the target to which economic policy should give primacy was retained as monetarism morphed into neoliberalism which, in turn, spun off ever more complex mathematically driven theories about how markets worked, all justifying deregulation, liberalisation and the idea that markets should as far as possible be left alone. These were all approaches to economic policy which commended themselves strongly to the social and political elites who were becoming ever more powerful

and influential. It was in this intellectual climate that theories such as the Efficient Market Hypothesis, which claimed that share prices always incorporated and reflected all relevant information, flourished while discouraging external interference and control. When the 2008 crash materialised, however, the weakness of 'the market knows best' policies became all too apparent and economic strategy became increasingly pragmatic and less guided by any over-arching view, with guidance from economic theory from professional economists becoming conspicuously less influential.

In the meantime, those opposed to neoliberalism produced a proliferation of varying critiques of what was still broadly the mainstream neoliberal approach.³⁹ Pragmatists' major concern was to make sense of the crisis as it unfolded and to take whatever practical actions seemed most appropriate in the short term to stabilise the situation, focusing on the need for regulatory reform to prevent future financial melt downs. Market Fundamentalists believed that government intervention was the major cause of the crisis, including maintaining low interest rates for much too long, thus fuelling housing booms, followed by supposedly misguided policies to bail out banks. Institutionalists blamed liberalisation, deregulation and poor regulation as being the major factors which caused insufficient action to be taken to curb the perennial tendency for booms to generate themselves in the housing and banking sectors, allowing financial innovation to run riot. Keynesian collectivists, by contrast, tended to argue that the problem was one of demand deficiency and falling consumption as a result of loss of household wealth, leaving only the government to fill the demand gap. Structuralists saw the fundamental cause of the West's present malaise in widening inequality, which prompted governments to augment stagnant incomes by tolerating excessive borrowing both by consumers and the state. While there may be elements of truth in all these points of view, it is striking that almost none of their adherents attach much significance to economic growth, which is almost never mentioned in their literature as a major target. Hardly surprisingly, therefore, their proposals seldom – if ever – claim to provide coherent, comprehensive and realistic programmes for getting the West's economies to grow fast and sustainably enough to

reduce unemployment and inequality and to generate a significant increase in living standards.

The reality is that economics is not a scientific subject like physics, with large numbers of reliable causes and consequences which can be validated by replicable experiments. It is much more like history – with one thing happening after another, often without any very clearly discernible patterns. All the efforts which have been made to turn economics into a system of axioms and precepts from which universal conclusions can safely be drawn have proved to fall well short of being really convincing and indeed the whole process has been attacked as being unsound – even within its own parameters.⁴⁰

Instead, it is much better to recognise the limitations from which economics suffers. It is not a study of objective facts and chains of causation. To a much greater extent it has become a systemised way of providing common-sense signposts for muddling through, taking account of the extent to which economics has become a battleground for doctrines which favour one interest group or another. Because economics has been able to masquerade as being scientific, it has provided cover for the fact that its precepts have been subject to a huge amount of pressure from the rich and powerful, who have been very good at bending economic conventional wisdom in directions which suits them best, not least by funding think tanks, newspapers and academic posts to advocate views which they find congenial.

Nowhere is this truer than in relation to exchange rate policy. Those who make and sell things have an interest in a low and competitive exchange rate while those who make their living in finance derive no such benefit – at least in the short term. The City – and the Bank of England – have always tended to want to see sterling as strong as possible because they believe that a high exchange rate bears down on inflation and that it gives them more international financial leverage. It is because the UK – and the USA – have such concentrations of political and social power in finance rather than industry that their views on economic policy and the supposed benefits of a strong pound are so widely accepted. This is in sharp contrast to the position in countries such as Germany and Japan, which have much stronger industrial bodies than

we do in the UK to make the case for keeping manufacturing competitive.

The contribution by academic economics to economic progress has been surprisingly patchy and sometimes counter-productive. This book attempts to set out, by contrast, a different and much more optimistic account of what produces economic growth and how it can be maintained irrespective of whether the level of GDP per head achieved so far is high or low. We need to look first, however, in more detail at the monetarist and neoliberal ideas to understand the basis of current orthodoxy, especially in the UK and USA.

Monetarism

Not everyone was persuaded by Keynesian doctrines, even in their heyday. There was always a substantial body of opinion which was suspicious of state action interfering with market driven outcomes. Influential schools of economic thought, particularly at Vienna and Chicago universities, argued that markets knew better than the state how to run the economy and that manipulating borrowing and deficits with fiat money would undermine the stability of the currency.

This tradition owes a substantial amount to Irving Fisher (1867-1947), who formalised in his book *The Purchasing Power of Money*, published in 1911, the case for monetary restraint with his intellectually appealing and powerfully persuasive Equation of Exchange, now usually expressed as $PT=MV$.⁴¹ P stands for prices, M for the number of notes and coins in circulation, V their velocity or rate of turnover and T the number of transactions, or, more broadly, the level of activity in the economy. If the total volume of transactions, T , is relatively constant, and the velocity of circulation, V , remains stable, then an increase in the money supply, M , will automatically imply a more or less similar increase in the price level, leaving the volume of activity in the economy much as it was before.

Monetarist ideas, in this form, would not have become accepted as widely as they were, however, without the theoretical and statistical underpinning provided by Milton Friedman (1912-2006) and his

associate, Anna Jacobson Schwartz (1915-2012), in their seminal book, *A Monetary History of the United States, 1867-1960*, published in 1963.⁴² In this book, they made three important claims which had a major impact on economic thinking all over the world. First, they said that there had been a clear association in the USA between the total amount of money in circulation and changes in money incomes and prices, but not economic activity, until approximately two years later. Changes in the money supply therefore affected the price level, but not, except perhaps for a short period of time, the level of output in the real economy. Second, these relationships had proved to be stable over a long period. Third, changes, and particularly increases in the money supply, had generally occurred as a result of events which were independent of the needs of the economy. In consequence they added to inflation without raising the level of economic activity.

The attractive simplicity of these propositions is easily recognised. The essence of the monetarist case is that increases in prices and wages not mirrored by productivity increases can be held in check by nothing more complicated than the apparently simple process of controlling the amount of money in circulation. Ideally, a condition of zero inflation is achieved when the increase in the money supply equals the rise in output in the economy. Since both wages and prices can only go up if extra money to finance them is made available, rises in either cannot occur unless more money is provided. Thus, if the government is seen to be giving sufficient priority to controlling the money supply, everyone will realise that it is in their interest to exercise restraint, reducing the rate of inflation to whatever level is deemed acceptable.

These prescriptions attracted much support to the monetarist banner, although it had always been clear that its intellectual underpinning had severe deficiencies. To start with, the theory begged the fundamental question as to the appropriate way to measure the money stock when so many ways of determining it were available. It was also well known that the ratio between the stock of money, however defined, and the volume of transactions could vary widely as the velocity of circulation changed. In addition, there has been widespread criticism of the methodology

used by Friedman and Schwartz in their analysis of the relationship between money and prices in the USA, indicating that the statistical basis from which their conclusions were drawn was not nearly as sound as they claimed it was.

As with so much else in economics, there is a major feedback problem with much of the monetarist position, making it difficult to distinguish between cause and effect. It may be true that over a long period the total amount of money in circulation bears a close relationship to the total monetary value of the economy's output. It does not follow, however, that the money supply determines the money value of GDP, and hence the rate of inflation. It may well be, instead, that the total amount of money in circulation is a function of the need for sufficient finance to accommodate transactions. If this is so, then an increase in the money supply may well accompany an increase in inflation caused by some other event, simply to provide the financial elbow room needed. It may not necessarily be the cause of rising prices at all.

Common sense tells us that changes in the money supply are only one of a number of relevant factors determining rises or falls in inflation. Monetarists, however, rejected this proposition, alleging that all alterations in the rate of price increases are caused by changes in the money supply some two years previously. They also claimed that the future course of inflation could be guided within narrow limits by controlling the money stock. Empirical evidence demonstrates that this contention is far too precise, and greatly overstates the predictive accuracy of monetarist theories.

For this amount of fine tuning to be possible, an unequivocal definition of money is required. It is one thing to recognise a situation where clearly far too much money, or, more accurately, too much credit is being created. Monetarists are right in saying that if credit is so cheap and so readily available that it is easy to speculate on asset inflation, or the economy is getting overheated by excess demand financed by excessive credit creation, then the money supply is too large. This is a broad quantitative judgement. It is quite another matter to state that small alterations in the money supply generate correspondingly exact changes in the rate of inflation. Yet this is the claim which monetarists put forward.

This claim is implausible for a number of reasons. One is the difficulty in defining accurately what is money and what is not. Notes and coins are clearly ‘money’, but where should the line be drawn thereafter? What kinds of bank facilities and money market instruments should also be included or excluded? Many different measures are available in every country, depending on what is put in and what is left out. None of them have been found anywhere to have had a strikingly close correlation with subsequent changes in the rate of inflation for any length of time. Often, different measures of the money supply move in different directions. This is very damaging evidence against propositions which are supposed to be precise in their formulation and impact.

Another major problem for monetarists, referred to above, is that there can be no constant ratio between the amount of money in circulation, however defined, and the aggregate value of transactions, because the rate at which money circulates can, and does, vary widely over time. The velocity of circulation – the ratio between the GDP and the money supply – is far from constant. In the USA, the M3 velocity – one of the most frequently used measurements of the total amount of money in the economy – fell 17% between 1970 and 1986, but by 1996 it had risen 22% compared to ten years earlier. It was exceptionally volatile in the UK where it rose by 7% between 1964 and 1970, and by a further 28% between 1970 and 1974, only to fall by 26% between 1974 and 1979.⁴³ Other countries, such as the Netherlands and Greece, also had large changes in the velocity of circulation, particularly during the 1970s.⁴⁴ More recently there have been huge increases in the money supply in relation to GDP, implying very substantial reductions in the velocity of circulation. In the USA, for example, M2 rose 79%⁴⁵ between 2000 and 2010 while the economy grew in money terms by no more than 49%,⁴⁶ and even larger increases have been seen then as a result of the introduction of Quantitative Easing following the 2008 financial crisis.⁴⁷

Some of these movements were caused by changes in monetary policy, but a substantial proportion, especially recently, have had nothing to do with the government. They have been the results of radical changes to the financial environment, caused by the effects of deregulation on credit creation, and the growth of new

financial instruments, such as derivatives. Variations like this make it impossible to believe in the rigid relationships that monetarism requires. In fact, the statistical record everywhere on the money supply and inflation shows what one would expect if there was very little causation at all at work. Except in extreme circumstances of gross over-creation of money and credit, changes in the money supply do not have much impact on the rate of inflation. The need to provide enough money to finance all the transactions taking place has, over the long term, proved to be much more important a determinant of the money supply than attempts to restrict it to control inflation, although some countries have certainly had tighter monetary policies than others. In the short term, there is no systematic evidence that changes in the money supply affect subsequent inflation rates with any precision at all.

It is not surprising, therefore, that the predictions of monetarists about future levels of inflation, based on trends in the money supply, have turned out to be no better, and often worse, than those of other people who have used more eclectic, common-sense methods. Monetarists have not kept their predictions, however, solely to the future rate of inflation. There are three other areas of economic policy where their ideas have had a decisive effect on practical policy over the last forty years, shaping the way in which governments of all political persuasions in the UK and elsewhere have approached economic policy formation. These are to do with unemployment, interest rates and exchange rates. Pure monetarism may have faded from fashion, but it has left a very powerful and durable legacy in these key policy areas.

The monetarist view of unemployment is that there is a 'natural' rate which cannot be avoided, set essentially by supply-side rigidities. Any attempt to reduce unemployment below this level by reflation will necessarily increase wage rates and then the price level. This will leave those in employment no better off than they were before, while the increased demand, having been absorbed by higher prices, will result in the same number of people being employed as previously. Increasing demand only pushes up the rate of inflation. It will not raise either output or the number of people in work.

At some point, as pressure on the available labour force increases and the number of those unemployed falls, there is no doubt that a bidding up process will take place, and wages and salaries will rise. This is an altogether different matter, however, from postulating that unemployment levels like those seen over much of the developed world during the 1980s are required to keep inflation at bay. Nor is it plausible that supply side rigidities are the major constraint on getting unemployment down. There is no evidence that these rigidities are significantly greater now than they were in the 1950s and 1960s, and on balance they are almost certainly less. If, during the whole of these two decades, it was possible to combine high rates of economic growth with low levels of unemployment, while inflation remained reasonably stable at an acceptable level, why should we believe that it is impossible now for these conditions to prevail again, as indeed they appear widely to have done in recent years?

Monetarism also had a considerable influence on interest rates, particularly during the 1980s. The tight control of the money supply which monetarists advocated then could only be achieved if interest rates were used to balance a relatively low supply of money against the demand for credit which had to be choked off by raising the price of money. This requirement was made to seem less harsh by suggesting that a positive rate of interest would always be required to enable lenders to continue providing money to borrowers. It was alleged that any attempt to lower interest rates to encourage expansion would fail as lenders withdraw from the market until the premium they required above the inflation rate reappeared.

Yet again, we have a proposition much more strongly based on assertion than on evidence, especially in the light of recent experience. For years on end, in many countries, real interest rates paid to savers have been negative, sometimes even before tax. Lenders, of course, have never regarded negative interest rates as fair, and frequently complain when they occur. There is, however, little that they can do about them. Their ability to withdraw from the market is generally limited. It is undoubtedly the case, however, that high positive rates of interest, which were an important part of the monetarist prescription, are a discouragement to investment,

partly directly, but much more importantly, because of their influence on driving up the exchange rate.

This is particularly paradoxical in relation to the third major impact of monetarist ideas on practical issues, which has been on exchange rate policy. Monetarists argued that no policy for improving an economy's competitiveness by devaluation will work because the inflationary effects of a depreciation will automatically raise the domestic price level back to where it was in international terms. This will leave the devaluing country with no more competitiveness than it had before, but with a real extra inflationary problem with which it will have to contend. This proposition, which is still widely believed, is one which is easy to test against historical experience. There have been large numbers of substantial exchange rate changes over the last few decades, providing plenty of empirical data against which to assess the validity of this monetarist assertion. The evidence, as is amply demonstrated by Table 1.1 on page 26, is overwhelmingly against it. There is example after example to be found of devaluations failing to produce sufficient excess inflation, if any, to wipe out the competitive advantage initially gained. On the contrary, there is ample evidence indicating that exactly the opposite effect has been the experience in a wide variety of different economies. Those which have devalued have tended to perform progressively better as their manufacturing sectors expanded and the internationally tradable goods and services which they produced became cumulatively more competitive.

Countries which have gained an initial price advantage therefore tend to forge ahead, with increasingly competitive import-saving and exporting sectors. Rapidly growing efficiency in the sectors of their economies involved in international trading gains them higher shares in world trade, providing them with platforms for further expansion. High productivity growth generates conditions which may even allow them, with good management, to experience less domestic inflation than their more sluggish competitors. In practice, monetarist policies have had pronounced effects on the exchange rates of the countries where they have been most effectively imposed but, invariably, their impact has been to push them up.

The economies concerned then suffer the worst of all worlds – an all too familiar mixture of unimpressive growth, low increases in output to absorb wage and salary increases, and quite often higher price inflation than their more favoured competitors.

Monetarist theories start by appearing simple and straightforward, but end by being long on complication and assertion, and short on predictive and practical prescriptive qualities. They pander to the prejudice of those who would like to believe their conclusions. They lack convincing explanations about the transmission mechanisms between what they claim are the causes of economic events, and the effects which they declare will necessarily follow. Where they can be tested against empirical results, the predictions their theories produce generally fail to achieve levels of accuracy which make them worthwhile. This is why monetarism in its purer forms is no longer fashionable.

Monetarist theories have nevertheless reinforced everywhere all the prejudices widely held in favour of the cautious financial conservatism, which monetarist prescriptions so accurately reflect. In this key respect, monetarist ideas still have a very powerful influence on current policymaking. By allowing themselves to be persuaded by these doctrines, it becomes all too easy for those responsible for running the nation's affairs to acquiesce in accepting levels of low growth, under-unemployment and stagnant real incomes – which would never have been tolerated if everyone had realised how unnecessary they were. The result has been that policies which should have been rejected have continued to be accepted, although they failed to work. Because expectations have been lowered, the deflationary consequences of high interest rates, restrictive monetary policies and overvalued exchange rates have not caused the outcry that might have been expected, and which they deserved.

Neoliberalism

It is no coincidence that the much more subdued economic performance across the West after about 1975, than had been the case for the previous thirty years, coincided with the arrival of new

THE ELEPHANT IN THE ROOM

Table 1.1: Exchange rate changes, consumer prices, the real wage, GDP, industrial output and employment

All figures are year on year percentage changes except for Unemployment

	Year	Consumer prices	Wage rates	Real wage change	GDP change	Industrial output change	Unemployment per cent
Britain – 31% devaluation against the dollar and 24% against all currencies in 1931	1930	-6.0	-0.7	5.3	-0.7	-1.4	11.2
	1931	-5.7	-2.1	3.6	-5.1	-3.6	15.1
	1932	-3.3	-1.7	1.6	0.8	0.3	15.6
	1933	0.0	-0.1	-0.1	2.9	4.0	14.1
	1934	0.0	1.5	1.5	6.6	5.5	11.9
France – 27% devaluation against all currencies in 1957/58	1956	2.0	9.7	7.7	5.1	9.4	1.1
	1957	3.5	8.2	4.7	6.0	8.3	0.8
	1958	15.1	12.3	-2.8	2.5	4.5	0.9
	1959	6.2	6.8	0.6	2.9	3.3	1.3
	1960	3.5	6.3	2.8	7.0	10.1	1.2
	1961	3.3	9.6	6.3	5.5	4.8	1.1
USA – 28% devaluation against all currencies over 1985/87	1984	4.3	4.0	-0.3	6.2	11.3	7.4
	1985	3.6	3.9	0.3	3.2	2.0	7.1
	1986	1.9	2.0	0.1	2.9	1.0	6.9
	1987	3.7	1.8	-1.9	3.1	3.7	6.1
	1988	4.0	2.8	-1.2	3.9	5.3	5.4
	1989	5.0	2.9	-2.1	2.5	2.6	5.2
Japan – 47% revaluation against all currencies over 1990/94	1989	2.3	3.1	0.8	4.8	5.8	2.3
	1990	3.1	3.8	-0.7	4.8	4.1	2.1
	1991	3.3	3.4	0.1	4.3	1.8	2.1
	1992	1.7	2.1	0.4	1.4	-6.1	2.2
	1993	1.3	2.1	0.8	0.1	-4.6	2.5
	1994	0.7	2.3	1.6	0.6	0.7	2.9
Italy – 20% devaluation against all currencies over 1990/93	1990	6.4	7.3	0.9	2.1	-0.6	9.1
	1991	6.3	9.8	3.5	1.3	-2.2	8.6
	1992	5.2	5.4	0.2	0.9	-0.6	9.0
	1993	4.5	3.8	-0.7	-1.2	-2.9	10.3
	1994	4.0	3.5	-0.5	2.2	5.6	11.4
	1995	5.4	3.1	-2.3	2.9	5.4	11.9
Finland – 24% devaluation against all currencies over 1991/93	1990	6.1	9.4	3.3	0.0	-0.1	3.5
	1991	4.1	6.4	2.3	-7.1	-9.7	7.6
	1992	2.6	3.8	1.2	-3.6	2.2	13.0
	1993	2.1	3.7	1.6	-1.6	5.5	17.5
	1994	1.1	7.4	6.3	4.5	10.5	17.4
	1995	1.0	4.7	3.7	5.1	7.8	16.2
Spain – 18% devaluation against all currencies over 1992/94	1991	5.9	8.2	2.3	2.3	-0.7	16.3
	1992	5.9	7.7	1.8	0.7	-3.2	18.5
	1993	4.6	6.8	2.2	-1.2	-4.4	22.8
	1994	4.7	4.5	-0.2	2.1	7.5	24.1
	1995	4.7	4.8	0.1	2.8	4.7	22.9
	1996	3.6	4.8	1.2	2.2	-0.7	22.2
Britain – 19% devaluation against all currencies in 1992	1990	9.5	9.7	0.2	0.6	-0.4	6.8
	1991	5.9	7.8	1.9	-1.5	-3.3	8.4
	1992	3.7	11.3	7.6	0.1	0.3	9.7
	1993	1.6	3.2	1.6	2.3	2.2	10.3
	1994	2.4	3.6	1.2	4.4	5.4	9.6
	1995	3.5	3.1	-0.4	2.8	1.7	8.6
Argentina – 72% devaluation against all currencies early 2002	2000	-0.9	1.2	3.3	-0.8	-0.3	14.7
	2001	-1.1	-2.6	-23.3	-4.4	-7.6	18.1
	2002	25.9	1.9	-11.5	-10.9	-10.5	17.5
	2003	13.4	17.6	8.8	16.2	16.8	
	2004	4.4	13.7	9.0	10.7	13.6	
	2005	9.6	22.8	11.9	9.2	8.5	8.7
Iceland – 50% devaluation against all currencies 2007/2009	2005	4.0	6.3	2.3	7.2	12.4	2.6
	2006	6.7	8.8	2.1	4.7	16.8	2.9
	2007	5.1	9.8	4.7	6.0	0.7	2.3
	2008	12.7	8.5	-4.2	1.2	35.5	3.0
	2009	12.0	3.0	-9.0	-6.6	3.8	7.2
	2010	5.4	6.1	0.7	-4.0	10.6	7.6
	2011	4.0	7.1	3.1	2.6	13.5	7.0

Sources: *Economic Statistics 1900-1983* by Thelma Liesner. London: *The Economist* 1985. *IMF International Financial Statistics Yearbooks*, *Eurostatistics* and British, Argentine and Icelandic official statistics and International Labour Organisation tables.

economic policies which captured the policy making scene in the mid-1970s and which have dominated it ever since. The appeal of monetarism in the form which captured the policy making agenda in the 1980s may have faded, but its legacy, in the form of neoliberalism, reflects its powerful legacy.

The crucial event which triggered off the triumph of monetarism and neoliberalism over the policies pursued during the first thirty years after the end of World War II was the increase in inflation which gripped the world in the 1970s, to which Keynesian orthodoxy – that had served the world well in the 1950s and 1960s – had no convincing response. The proximate cause was the break-up of the Bretton Woods system, which had provided the framework for world trade and monetary management for the past two and a half decades. On 15th August 1971, the USA, faced with rising balance of payments problems, cut the link between the dollar and the gold at Fort Knox which underpinned it. The result was that all the world currencies became truly fiat based, that is dependant entirely on the creditworthiness of the governments which issued their currencies, and no longer dependent on gold backing.

As the certainties of the Bretton Woods and Keynesian world crumbled away, intellectual fashions in economics moved decisively away from the orthodoxy of the previous quarter of a century. Monetarism – morphing into neoliberalism – became the theoretical and practical discipline to which the vast majority of those involved in economic affairs, both in the academic and policy making worlds, began to subscribe. It is no coincidence, however, that the UK was among the countries which took this shift in policy direct most seriously. Manufacturing, which was bound to suffer from this switch, already had much less influence than finance which stood, at least in the short term, to gain from it.

It was not, however, just the Anglo-Saxon countries – the UK and the USA – with strong classical economic traditions, which switched to monetarism and neoliberalism. Similar policies also managed to get their grip on the European Union, leading to the determination, exemplified in the provisions of the 1992 Maastricht Treaty, to put monetary stability before prosperity.⁴⁸ The loss of confidence in Keynesian policies after the rising inflation and

international dislocation of the 1970s had amplified policy shifts in a monetarist direction, particularly in Germany and France. This change in intellectual fashion, as much as anything else, was responsible for the EU switching from being one of the world's fastest growing regions into becoming an area of exceptionally slow increase in output, accompanied by painfully high levels of unemployment.

Countries which have given monetarist prescriptions less priority, on the other hand, both in Europe and elsewhere, continued to grow apace. Norway, a prime example, outside the European Union, although greatly helped by its oil surplus, achieved the highest rate of GDP per head within the OECD between 1973 and 1992, just ahead of Japan, increasing the population's living standards by over 70%.⁴⁹ The Norwegians succeeded in combining this achievement with one of the better OECD records on inflation, with an unemployment rate barely one-third of the then EU average.⁵⁰ Over the same period, Britain and the USA, both of whom are countries strongly influenced by monetarist ideas, achieved GDP per head increases of only 31% and 26% respectively. The EU chalked up 41%.⁵¹

Monetarist and neoliberal prescriptions, stripped of their theorising and rhetoric, are familiar to anyone who knows the preconceptions of most of those who make their living out of finance or those with old money fortunes to protect. Their hallmarks are relatively tight money and high interest rates net of inflation and the consequently uncompetitive exchange rates which slow down productive enterprise, making it harder to sell abroad and easier to import, discriminating against manufacturing investment, and draining the talent out of industry.

These ideas, and the devotion to balanced budgets and financial conservatism, which was their predecessor, harking back to nineteenth century classical economics, have never been far below the surface, especially in the USA or UK. Meanwhile the Austrian tradition in economics, with its own strong deflationary bias, held more sway in Germany, buttressed by memories of the hyper-inflation which the Germans had experienced in 1923 in the aftermath of World War I. With these ideas on how to run

the economy gaining dominance, post-1973, and especially in the 1980s, it is hardly surprising that increasingly deflationary macro-economic conditions prevailed in both the USA, UK and most of the rest of the western world. They were directly responsible for the low growth and slow productivity increases of the subsequent decades. They also contributed strongly to the huge widening of incomes and wealth which has taken place over the last forty years, with which the attenuation of manufacturing capacity, itself a direct result of neoliberal policies, is heavily bound up.

If these policies were so damaging, why were they adopted? Why should a combination of self-interest and social attitudes produce an environment where these ideas could take strong hold even if they are weak in intellectual coherence, undermined by prescriptive inadequacies and have such damaging consequences? Why should mature, stable, slow growing economies be particularly prone to producing a climate of opinion where such ideas can flourish?

The answer is that the implications of tight money policies are far from unattractive to large sections of the population, especially in economies already growing relatively slowly, where lenders tend to be in a strong position and borrowers in a weak one. Those who have achieved success in finance rather than manufacturing tend to move into positions of influence and political power. As they do so, the doctrines which appeal to people with financial backgrounds become increasingly dominant. The attitudes of those whose business is lending money, who have an obvious stake in high interest rates and scarcity of the commodity they control, become politically significant, not least because their opinions have a self-fulfilling quality. If there is great fear that losing their confidence will lead to a run on the currency, this places those in a position to keep the parity up by their decisions in a very powerful role. Those whose incomes depend on high interest rates – pensioners and many others – are also naturally inclined to support a policy which seems so obviously in their favour. Bankers, financiers and wealth holders are the immediate beneficiaries of the deflationary policies which follow, buttressed by those who can see no further ahead than obtaining the immediate benefits of low-cost imports and cheap holidays abroad. The losers are those

engaged in manufacturing and selling internationally tradable goods and services.

When the economy grows slowly, the power and influence of finance increases against that of industry. This is partly a result of the process of accumulation of capital wealth, much of which tends to be invested abroad rather than at home, because slow growth in the domestic economy creates better opportunities overseas. This was the story of Britain in the nineteenth century, the United States for a long period post-World War II, Japan from the 1980s onwards and now China is moving in the same direction. This process produces profound effects on social attitudes and political power, particularly if these conditions prevail for a long period of time, as they have in most of the slow growing industrialised countries.

If the economy is run with relatively tight money, and high interest and exchange rates, the inevitable consequence is to produce adverse trading conditions for all output exposed to international competition, especially in markets which are particularly price sensitive. Adequate returns on investment are much harder to achieve. It becomes increasingly difficult to pay the going wage or salary rates for the calibre of employees required for success in world markets. Of course, there will always be exceptionally efficient companies, or even industries, such as pharmaceuticals, aerospace and motor vehicle production in the UK, which buck the trend – although it is very significant that these industries do not operate generally in markets which, for various reasons, are especially price sensitive.

These relatively rare high performers are not, however, enough. It is the average which counts, and here the results are impossible to dismiss. The profitability of large sections of manufacturing in the western world has become insufficient for it to be worthwhile for them to continue in business. This is why the proportion of GDP derived from manufacturing has fallen so precipitately in most western economies over the last four decades, as the East, particularly along the Pacific Rim, has taken over as the world's new workshop, as key statistics underscore. In 2015, China produced 804m tons of crude steel compared to 166m tons in the whole of the EU and 79m in the USA.⁵² In the same year, China produced 24.5m

vehicles, Japan – the world leader in the 1970s, '80s and '90s – 9.3m and, the USA – the world leader before Japan took over – 12.1m, up from no more than 7.7m. in 2010.⁵³ The same trends affected swathes of other industries in many other developed economies. Meanwhile, in countries which gave their industrial base a better deal, fortunes were made in manufacturing, and the rest of the economy struggled to keep up.

The most able graduates from western universities nowadays go decreasingly into industry. The easiest money and most glittering careers beckon in the professions, in finance and in the media. The academic world, politics and government service look increasingly more attractive, and for those bent on a career in mainstream business, the service sector generally offers more security and better prospects than manufacturing. If the most able people choose not to go into industry, but instead become lawyers or bankers or television personalities, the educational system responds accordingly.

A significant consequence of the social bias which runs through the whole of this process is that it determines the background of people most likely to reach the peak of their careers running major companies, especially in manufacturing. An interesting contrast between countries such as the USA and Britain, which have grown slowly, and those economies which have grown fastest, is that quite different people tend to become CEOs. In slow growing economies, chief executives are often professional people, such as lawyers and accountants. Where the economy is growing fast, they tend to be engineers and salesmen. No doubt both cause and effect are operating here. If the most able people in the commercial field are in the professions, they will finish up at the top of big companies, where their talents will be especially in demand to deal with powerful financial interests. In fast growing economies, where exporting is highly profitable and financial considerations are consequently less immediately pressing, engineers and salesmen tend to hold the top positions. It is hardly surprising that companies which are run by accountants and lawyers are particularly concerned with financial results, while those controlled by salesmen and engineers are more orientated to markets and products.

Nor is the low status of industry only a financial or social matter. It also has a large impact on the political weight of manufacturing interests as against those of other parts of the economy. Exercising political power requires talent, takes time and costs money. All are in increasingly short supply, particularly in American and British industry, and the results are clear to see. Few Members of Congress or Parliament have any significant hands-on manufacturing experience. The role models to whom the younger generation looks up are nowadays not usually those running manufacturing industries. Those in law practice, accountancy, the media and – at least until recently – investment banking look more impressive and secure. In these circumstances it is small wonder that economic ideas which promote finance over manufacturing tend to find favour. It does not follow, however, that these ideas are well founded. Still less is it true that they are in the best long-term interests of the economy, or even of those in the financial community itself. In the end, those concerned with finance depend as much as everyone else on the performance of the underlying economy and, in particular, on its capacity to hold its own in world markets.

2.

Economic Growth

Neither monetarist nor neoliberal policy prescriptions are primarily concerned with maximising the prospects for economic growth. Their main focus has always been on providing monetary stability and, in particular, a low and steady rate of inflation. Their supporters believe that a framework will then be created – within which economic growth will take place at an appropriate pace dictated by the market. The problem, however, is that the rate of growth that monetarist and neoliberal conditions have generated has been relatively low and far beneath those where other policy prescriptions – which are much more favourable to high growth rates – have been put into practice. The issue, therefore, is not to ignore inflation but to understand what needs to be done to achieve much better results in the growth stakes without price rises running out of control. How can we achieve results comparable to those widely seen in Europe and North America in the decades immediately following World War II, let alone those attained more recently by countries such as China?

Turning to world experience, between 1950 and 2018, the world economy grew to 12.1 times its 1950 size, or by an average of 3.7% per year.⁵⁴ Of course, the population has also become much larger too, increasing over the same period from 2.6bn to 7.5bn, an average of 1.6% per annum.⁵⁵ Dividing the increase in GDP by the increase in population shows that GDP per head – a qualified proxy for living standards – rose over this 68-year period by a factor of 4.10, or by an average of 2.1% per annum.

Judged by anything achieved on any comparable scale previously in human history, these are astonishing figures. In 1945, only a small proportion of the world's population lived much above subsistence

level, most of them in the industrialised West. Nowadays, the number of very poor people – those with incomes equivalent to \$2 a day or less – has shrunk to about 12% of the world’s population, down from 37% in 1990 and 44% in 1981.⁵⁶ Prosperity on a scale unimaginable to our ancestors has spread to most of the planet.

This has happened because the value of the work which the world’s population has done has risen exponentially, although not because – on average – the number of hours worked per person has gone up. Some people, such as those employed in industrial occupations, are now working shorter hours than their equivalents were 70 years ago while others, such as those who have moved out of subsistence farming into more productive occupations, are working more hours per week. The reason why so much more is achieved by the world’s working population now than before is that there has been a very large increase in the value created per hour of work done. It is this increase in productivity which lifted output per head of the world’s population to such a huge extent cumulatively over the whole period since the Industrial Revolution started, but particularly after World War II as industrialisation spread more widely.

The key to understanding what has made the world economy – and output per head – grow like this is to appreciate what has made this miraculous increase in productivity possible. It is not that people are working harder. Nor is it, beyond a limited extent, because they are working more intelligently, although some undoubtedly are. It is because they are working more effectively, which is a rather different concept. This happens mainly for three inter-related reasons. One is the application of machinery to work which previously had to be done without it. The second is the application of technology to make things happen in a productive way which would not otherwise have occurred. The third is the use of much more power than the human frame is capable of producing.

It is these three processes which are very largely responsible for all the growth in output which the world has witnessed. Of course, investment in other areas, such as schools, hospitals, roads and rail, is also very important from a social point of view, but all the evidence shows that it has a very limited contribution to make as a direct source of increased output per hour and thus to economic

growth. As we shall see analysed in more detail in the next section of this chapter, the return on this type of investment is typically very low – indeed little more than the interest charges on the capital needed to finance it – so it does not produce enough extra gross value added to lift the whole economy very much, and sometimes not at all. Education and training are obviously also very important too but – critically – not sufficient on their own. They are a vital complement to physical investment for increasing output per hour but – as has been found almost everywhere – on their own they are much less effective than most people would like to believe they are.

The key to economic growth, therefore, is to arrange economic incentives so that the maximum feasible amount of investment goes into machinery, technology – especially in the digital and virtual world – and the power they need, which then, of course, needs to be complemented by appropriate education and training and other supply side policies. Some economies have managed to do this on an extraordinarily extensive basis. The proportion of Chinese GDP which is reinvested in total has recently been hovering at not far off 50%,⁵⁷ of which about a third goes into the kind of industrial investment which produces the huge returns which have driven Chinese growth rates.⁵⁸ The world average ratio for gross capital formation as a percentage of GDP is about 25%.⁵⁹ Some economies, however, have done very much worse than this. In the late 2010s, the proportion of UK GDP devoted to investment, net of expenditure on intellectual property, was just under 13% and about 17% including it,⁶⁰ one of the lowest in the world, but much of western Europe and the USA have done little better. This has a lot to do with why productivity and real wage increases are stagnant and why, in consequence, the rates of economic growth of many western economies are so low.

Why have the Chinese devoted such a high proportion of their GDP to investment while in the UK the ratio has been so much less? As always, there are complex reasons why such different outcomes have materialised, but at bottom it boils down to economic incentives. People will tend to react to the circumstances in which they find themselves in ways which they believe will maximise their economic advantage. If, for whatever reasons, it does not pay

all those in a position to influence investment decisions to promote expenditure on them, they will not take place on any major scale – and vice versa. The keys to achieving a reasonably high rate of growth are not, therefore, in principle difficult to determine. They involve no more than identifying clearly those sectors of the economy in which investment most readily promotes increased output, and then providing an environment which provides the right incentives for getting it to take place.

Why has this not happened in much of the world, particularly across much of the West in recent years, especially since the 2008 crash? This book is about searching for an answer to this question. Why have our governments apparently been so bad at identifying what needs to be done and then providing the right incentives to make sure that what is really needed actually happens instead of falling back on monetarist or neoliberal conditions to provide a much weaker and less well-planned environment for growth?

The way in which this book sets out to provide answers to these questions is by a combination of searching for what economic history can tell us, taking account of what people at the time thought were the major problems and what the solutions to them might be, and then looking back at what happened with the benefit of hindsight. The remainder of chapter two considers, in more detail, the process by which economic growth takes place and the conditions needed for it to happen.

Chapter three then turns to economic history as it reviews what the world's economic development – up to the outbreak of World War I – might be able to tell us about why the Industrial Revolution did not really start to materialise until the eighteenth century and why it then only slowly spread, mainly initially through the western world, but leaving some countries growing much more rapidly than others.

Chapter four looks at the turbulent period between the start of World War I and the end of World War II when the main non-wartime economic problems facing policy makers were centred round the disruption caused by World War I and the huge levels of unemployment and unused capacity triggered by the catastrophic fall in demand which caused the slump.

Chapter five then considers the golden period of economic growth and full employment, especially in the West, from the end of world War II to the early 1970s. Why did the policies which had initially been so successful end up in a quagmire of stagflation – a dire mixture of high inflation and very slow growth?

Chapter six turns to the monetarist response in practice to this policy conundrum. Inflation came down but at the cost of much slower rates of growth than had prevailed previously. What was the process which caused this slow down to happen and could this have been avoided?

Chapter seven then reviews what the implications of the neoliberal policies – underpinned by much of the thinking which monetarist doctrines generated – turned out to be, not only for the domestic economies of the West, but to international trading relations, particularly globalisation and the rise of the East compared to the West. Why did the West suffer from far lower growth rates than the Pacific Rim, and how did this manage to help to generate the conditions which led to the 2008 crash – disappointingly low rates of economic growth in the West, with largely stagnant incomes for most people, rising inequality and consequent political instability?

Chapter eight then pulls together the lessons which it seems ought to be learnt from the history and analysis in the previous chapters. What alternative policies might be available to avoid the prospect of years ahead of little or no increase in real incomes for the bulk of the population? How can we avoid mounting resentment at the rich apparently getting richer while everyone else is squeezed, and trust is eroded in the capacity of our political leadership to govern reasonably, competently and fairly? What policy changes need to be made to get the world economy onto a more stable footing while avoiding the West, with its liberal democratic values, being eclipsed by the more authoritarian rising powers in the East as a result of its inability to achieve a reasonable rate of economic growth?

Economic expansion is not everything, however, and chapter nine looks at some of the other major hazards which humanity is facing if we are to have a sustainable future: world population pressures, possible limitations on resources, climate change and the tensions caused by mass migration. Chapter ten then draws

together conclusions about what needs to be done – and what may well happen if there is no improvement in the outcomes which we manage to achieve.

Before turning to what our economic history might be able to tell us about why events turned out the way they did, thus providing some guidance from experience on the strength and weaknesses of the policies which were pursued and what might work best in future, there are four concepts worth exploring in more detail. Each has its own often unappreciated importance – and understanding the significance of each more clearly provides insights on what policies might be effective and what might not. These concepts are: the cost base, the social rate of return, the links between borrowing and lending, and export and import price elasticities.

The cost base

Almost all output, whether manufactured goods, services or commodities, has some sensitivity to the prices asked for it. Nobody wants to pay more than they have to for goods, services or commodities. Seeing whether buyers receive the most competitive prices and the best value for money from sellers is, however, much more difficult to determine in some cases than others.

For commodities such as oil, foodstuffs or metallic ores, where quality standards are well established, there are world prices, which may well fluctuate, but where sellers have to match the market price or no sales take place. If, in any particular country, there are sources of supply which can be marketed at profitable prices, trading will take place and if not, not. The exchange rate will make a big difference as to whether this profitability condition is or is not met but, except for a small number of countries which have cornered large shares of the market for particular commodities – oil in Saudi Arabia for example – no country and the companies which operate within it can make much, if any, difference to the prevailing price levels, although powerful cartels such as OPEC have been successful in doing so for a time. If the cost of extracting North Sea oil rises above the world price, production may continue for a while, as the marginal cost is lower than the full cost. The

companies involved may persevere with production temporarily in the hope that prices will be higher in future, but if the total costs of extracting North Sea oil are more than the world price for a long period, production will stop.

For services, the situation is different. Nearly all service outputs come in forms which are relatively small, differentiated and more difficult to compare with each other. How good is this lawyer compared to that one? How nice is this hotel bedroom compared to one in another hotel? How does the teaching in this university compare with that one? Of course, everyone still wants to obtain value for money, but measuring what is worth buying and what is not is much more difficult than it is with commodities. Services are therefore price sensitive to a less immediate extent and value for money is more difficult to assess than it is for commodities.

Manufactured goods are in a different category again, partly because nearly all manufacturing involves falling costs as production volumes increase in a way which does not apply to many services or commodities, and partly because most manufactured products have obvious close substitutes, making price comparisons relatively easy. Most manufactured goods are, therefore, very price sensitive, especially those subject to international competition. Companies capable of capturing sufficient market share to benefit strongly from higher and higher volumes of production find themselves in a cumulatively stronger and stronger position to capture still more market dominance.

What impact do these differences in price sensitivity have on the way that trade develops? The answer is that this depends on the way in which the cost base in any particular country is charged out to the rest of the world – it is then easy to see how crucial the exchange rate is in determining what happens. It is the relative difference in cost bases between different countries which shapes world trade.

The cost base consists of all the costs involved in producing anything – commodities, services or manufactured goods – which are incurred in the domestic currency. These include wages and salaries, nearly all overhead costs, as well as provisions for interest, profit and taxation. ONS figures show that for manufacturing in the

UK, on average about 30% of total costs involve inputs which are bought in at world prices, particularly machinery, raw materials and components,⁶¹ leaving about 70% paid for in sterling. For commodities such as oil, the ratio for domestically incurred costs tends to be rather higher and in services higher still. Most services have only a small import content – typically less than 20%. For the UK economy as a whole, the ratio for services is about 22%.⁶²

The ability of any economy to flourish – or otherwise – in world markets then depends crucially on how the cost base is charged out to the rest of the world – and this is almost entirely an exchange rate issue. Suppose two countries start both with an exchange rate which is sufficiently competitive to enable each of them to maintain their share of world trade, in which case both are very likely to grow at close to the same speed as the world average. Suppose then that one of them increases its exchange rate by 50% – which is less than what happened in the UK between 1977 and 1981. What happens to export prices? The country with the rising exchange rate, as a first approximation, will have to raise its export prices measured in world currency terms by 50% times the percentage of production costs which are paid in the domestic currency.

What happens then is that – subject to various caveats which inevitably apply in the real world – the proportion of total costs incurred at world prices – machinery, raw materials and components in the case of manufacturing – will stay the same as they were before, measured in world currency terms – say in US dollars. The domestically incurred costs, however – about 70% on average in the case of manufactures and around 80% for services – will all go up by 50%. Suppose that before the currency got stronger, export prices in the revaluing country were 100, then, after the currency had strengthened, measured in world terms, manufactured goods will have to be charged out on average at $30 + (70 \times 150\%)$, which comes to 135. Services would be even higher: $20 + (80 \times 150\%)$ comes to 140. In practice, these increases might be rather less as profit margins were squeezed, but the principle is clear. Furthermore, these higher charges will impact not only on export competitiveness, but also on the tendency of the economy to import more than it otherwise would have done.

Unfortunately, the economic history of the UK over the 250 years since industrialisation began, and GDP per head and living standards started to rise, shows that for most of this period we have had an exchange rate which has been too high for manufacturing and thus for the economy as a whole. The evidence is that over most of this time we have seen our share of world trade declining, dragging down our growth rate with it, compared to other countries. The reason for this is that the prices at which we have tried to sell our domestically incurred costs – our cost base – to the rest of the world has been, on average, much too high. The picture is not, however, the same on services as it is on manufacturers.

On services, we have done much better than on goods. Not only in the nineteenth century but right through to the present day, the UK has run an export surplus on services which, in 2019, came to £104bn compared to a £130bn deficit on goods.⁶³ This is because the UK has a large number of important competitive advantages on services. These include the English language, our geographical location, our legal system, our high-quality universities and all the biases which have led to talent being concentrated in this part of the UK economy. Combining these advantages with the general lack of price sensitivity in the service sector means that the UK's export position on services has been positive and successful with the exchange rate as high as it has been recently.

In manufacturing, however, we unfortunately do not have the same natural competitive advantages. This is why, especially with the exchange rate where it has been over the last 40 years, so much of the internationally tradable manufacturing capacity which the UK had in the 1970s has been run out of business. Apart from industries essentially serving the local market as a result of having to be close to it, such as food production, jobbing, printing and repairs and maintenance of existing equipment, the UK has little manufacturing capacity left other than high tech operations, such as aerospace, vehicles, arms and pharmaceuticals, which are not very price sensitive for other reasons. These types of industries require substantial accumulations of experience and skills, and large amounts of historical research and development. They are heavily protected by branding and intellectual property rights – and often

by politics. They therefore have monopolistic characteristics which have enabled them to survive – although even these industries may be under threat before long as the Chinese get more proficient at aerospace production, the Indians at pharmaceuticals and the South Koreans at car manufacturing.

The dilemma faced by UK policy makers, therefore, is that the exchange rate requirements of the service and manufacturing sector of the economy diverge sharply. \$1.50 to the pound may work for the service sector but it is lethal for manufacturing, which needs an exchange rate of the order of a fifth lower than its August 2020 level of around \$1.25 or €1.10 to have any realistic chance of reversing deindustrialisation. Hardly surprisingly, because the service sector is so much more successful in the UK than manufacturing, the prevailing conventional wisdom tends strongly to favour the current parity for sterling, which suits the service sector well enough – and this is one of the major reasons why there is little pressure for a lower exchange rate.

The problem is that our foreign sales still depend very heavily on goods rather than services. Despite the huge difficulties under which manufacturing in the UK has laboured over past decades, the 10% of GDP which it contributes provides some 45% of our exports. Services, making up more than 80% of our GDP, provide about the same value of exports as manufactures – but from over 80% rather than just under 10% of GDP.⁶⁴ To avoid us slipping further and further down the world-exporting league, therefore, we cannot rely on our services exports. We have to do better on manufacturing – and this can only happen if we have an exchange rate which works for our highly price sensitive manufacturing sector.

The social rate of return

If countries, such as the UK, want to have policies in place which are specifically orientated to increasing their growth rates, it needs to be clear how these might operate and what conditions would be required to enable them to work successfully. Prescriptions need to be rooted in reality with a clear logical coherence which can be tested against practical experience. Set out below is an account of

what produces economic growth which is designed to satisfy these requirements, with its analysis and assumptions being relatively easy to test against real life data and practice.

The starting point is to recognise that the key characteristic of any type of investment in growth terms is not just the return it provides to the investor who promotes it, but the total – or social – rate of return provided to the whole economy. This includes not only the private rate of return, which goes to whoever promoted and financed the investment, but also all the benefits of the extra output which flow to the wider community from the increased value added which the investment makes possible. These can take the form of higher wages and salaries, larger profits, better and often cheaper products, and a more substantial tax base, as well as the rate of return to the original investor.

A major factor, borne out by a wealth of practical experience but not always recognised, is that most categories of investment in both the public and the private sectors are not usually expected to generate anything except quite low social rates of return and are therefore not implemented with the expectation that they will produce any substantial increases in GDP. Almost all public sector investment – in road, rail, schools, hospitals, public buildings and housing – falls into this category, however high its social value may be. Investment of these types produces social rates of return on average which are barely, if any, higher than the real rates of interest on the money used to finance them. The same is true of much private sector investment – such as office blocks, shopping malls, housing again, facilities such as new restaurants and IT systems. Typically, social rates of return are in the 5% per annum average range, albeit with a spread round this figure both upwards and downwards. The low average social rate of return achieved by the UK, which included at least some investment with much higher average returns, shows how low the returns from most UK investment has been in recent years.

Striking confirmation of how low the contribution of many categories of economic activity in both the service and the public sector to economic growth is provided by two long runs of statistics available on a consistent basis – one, in Table 2.1, covering the USA

THE ELEPHANT IN THE ROOM

from 1977 to 1997 and the other, Table 2.2, the UK from 1990 to 2015. In both cases, manufacturing and closely associated activities contributed disproportionately to the growth achieved.

	Output Value in constant 1992 \$bn	Labour Force in Millions	Output per Head \$000s		
1977					
Manufacturing	796.5	19.7	40.5		
Construction	213.8	3.9	55.5		
Mining	82.4	0.8	101.4		
Sub total	1,092.7	24.3	44.9		
Agriculture, Forestry & Fishing	61.1	4.1	14.7		
Transport & Utilities	346.8	4.7	73.6		
Wholesale Trade	201.0	4.7	42.6		
Retail Trade	364.5	13.8	26.4		
Finance, Insurance & Real Estate	742.7	4.5	166.3		
Services	712.5	15.3	46.6		
Statistical Discrepancy	37.3				
Not Allocated	-2.4				
Government	717.4	15.1	47.4		
1977 GDP	4,273.6	86.6	49.3		
				Output per Head Percentage Changes from 1977 to 1997	
1997				Total % Change	Annual % Average
Manufacturing	1,369.9	18.7	73.4	81.4	3.0
Construction	274.4	5.7	48.3	-13.1	-0.7
Mining	109.9	0.6	185.6	83.2	3.1
Sub total	1,754.2	24.9	70.4	0.57	2.3
Agriculture, Forestry & Fishing	127.6	2.9	44.5	201.78	5.7
Transport & Utilities	644.3	6.4	100.8	36.92	1.6
Wholesale Trade	532.0	6.6	80.0	88.04	3.2
Retail Trade	713.5	22.0	32.4	22.65	1.0
Finance, Insurance & Real Estate	1,286.0	7.1	181.4	9.08	0.4
Services	1,398.6	36.0	38.8	-16.66	-0.9
Statistical Discrepancy	-45.4				
Not Allocated	-25.0				
Government	884.0	19.6	45.2	-4.75	-0.2
1997 GDP	7,269.8	125.6	57.9	17.35	0.8

Source: Tables B.13, B.46 and B.100, *Economic Report to the President 1999*. Washington DC: US Government Printing Office 1999.

ECONOMIC GROWTH

Table 2.2: Changes in output per head of the UK working population between 1990 and 2015

1990		Gross Value Added in constant £bn	Labour Force in '000s	Gross Value Added per Head	% GVA in 1990	% GVA in 2015	1990-15 Change in GDP % Output	
A	Agriculture	£9.9	486	£20,465	1.0%	0.7%	-0.3%	
B	Mining and Quarrying	£47.4	137	£346,182	4.7%	1.9%	-2.8%	
C	Manufacturing	£152.5	4,814	£31,676	15.3%	9.7%	-5.6%	
D	Electricity, Gas, etc	£14.3	211	£67,896	1.4%	1.2%	-0.2%	
E	Water	£11.7	113	£103,796	1.2%	1.2%	0.0%	
F	Construction	£92.5	2,128	£43,462	9.3%	6.1%	-3.1%	
G	Wholesale Retail & Motor Trade	£107.3	4,363	£24,600	10.7%	11.6%	0.9%	
H	Transportation and Storage	£42.4	1,327	£31,972	4.2%	4.4%	0.2%	
I	Accommodation and Food	£29.9	1,592	£18,791	3.0%	2.7%	-0.3%	
J	Information and Comms	£31.1	950	£32,705	3.1%	6.3%	3.2%	
K	Financial & Insurance	£62.6	1,181	£53,027	6.3%	6.9%	0.6%	
L	Real Estate	£86.9	242	£359,256	8.7%	11.7%	3.0%	
M	Professional Science Tech	£42.0	1,490	£28,214	4.2%	8.0%	3.8%	
N	Administration & Support	£28.3	1,291	£21,947	2.8%	5.2%	2.4%	
O-Q	Government, Health and Edu	£199.7	6,447	£30,977	20.0%	18.1%	-1.8%	
R-U	Other Services	£40.9	1,306	£31,309	4.1%	4.2%	0.2%	
		£999.7	28,078	£35,604	100.0%	100.0%	0.0%	

2015		Gross Value Added in constant £bn	Labour Force in '000s	Gross Value Added per Head	Output per Head Percentage Changes from 1990 to 2015		Weighted Average	Growth Contribution	Growth Contribution %
					Total % Change	Annual Average	% of the Economy		
A	Agriculture	£11.7	384	£30,568	49.4%	1.6%	0.83%	0.36%	0.9%
B	Mining and Quarrying	£30.6	76	£403,211	16.5%	0.7%	3.00%	0.43%	1.1%
C	Manufacturing	£155.0	2,614	£59,300	87.2%	2.5%	11.80%	9.03%	23.0%
D	Electricity, Gas, etc	£19.9	139	£143,295	111.1%	3.0%	1.31%	1.28%	3.3%
E	Water	£19.5	180	£108,261	4.3%	0.2%	1.20%	0.05%	0.1%
F	Construction	£98.3	2,118	£46,416	6.8%	0.3%	7.32%	0.44%	1.1%
G	Wholesale Retail & Motor Trade	£186.2	4,965	£37,510	52.5%	1.7%	11.27%	5.19%	13.2%
H	Transportation and Storage	£70.7	1,387	£50,978	59.4%	1.9%	4.34%	2.26%	5.8%
I	Accommodation and Food	£43.2	2,174	£19,888	5.8%	0.2%	2.81%	0.14%	0.4%
J	Information and Comms	£101.4	1,344	£75,449	130.7%	3.4%	5.08%	5.83%	14.9%
K	Financial & Insurance	£110.7	1,131	£97,868	84.6%	2.5%	6.65%	4.93%	12.6%
L	Real Estate	£187.3	501	£373,780	4.0%	0.1%	10.52%	0.37%	1.0%
M	Professional Science Tech	£127.9	2,569	£49,771	76.4%	2.3%	6.52%	4.37%	11.2%
N	Administration & Support	£83.7	2,692	£31,108	41.7%	1.4%	4.30%	1.57%	4.0%
O-Q	Government, Health and Edu	£291.2	8,342	£34,909	12.7%	0.5%	18.84%	2.10%	5.4%
R-U	Other Services	£68.2	1,782	£38,250	22.2%	0.8%	4.19%	0.81%	2.1%
		£1,605.6	32,398	£49,559	39.2%	1.3%	100%	39.2%	100.0%

Sources: Tables on Employees by Standard Industrial Classification (SIC) ONS reference LPROD02. Table on Value Added by SIC from ONS Table reference GDP (O) Low Level. All values are in constant prices. Employment figures are from Q3. ONS include a qualification that some of the data provided is volatile. Users are therefore requested to take this into account when interpreting it.

Table 2.3: Gross investment, social rates of return and growth rates for selected countries and periods

Country	Period	Gross Investment as a % of GDP	Average Social Rate of Return	Average Growth Rate
UK	1934-1941	14%	37%	5.6%
USA	1939-1944	7%	144%	10.1%
Japan	1953-1970	29%	35%	10.1%
China	2002-2012	37%	25%	9.1%
Korea	2005-2016	30%	12%	3.5%
Singapore	2005-2016	26%	20%	5.3%
UK	2005-2016	17%	8%	1.4%
World	2005-2016	26%	14%	3.5%

NB: the Gross Investment figure for the USA for the period 1939 to 1944 covers private investment only, so the average Social Rate of Return for the US economy as a whole must have been lower than 144%.

Sources: *Economic Statistics 1900-1983* by Thelma Liesner. London: *The Economist*, 1986 and data extracted from successive editions of *International Financial Statistics Yearbook*. Washington DC: IMF

The categories of investment which can produce much higher social rates of return are those whose key capacity for enhancing productivity made the Industrial Revolution possible – and with it the huge increase in average living standards which has been its legacy. Experience shows that they are clustered round quite a narrow range of investment opportunities consisting primarily of mechanisation, technology and power. Think of a combine harvester replacing a scythe, a large truck replacing a wheelbarrow or a bulldozer a shovel, a computer instead of a multiplication table or a new machine which produces twice the output from the same inputs as the one it replaces. These categories of investment are capable not only of achieving both much higher social rates of return than others but – in contrast to the Solow assumption – they are often capable of increasing rather than diminishing returns.

Table 2.3 shows the ratio, over a number of years, for a variety of different countries and periods, between the total value of investment in their economies and the economic growth – or extra annual output – they achieved over the same period, all on a constant basis, i.e. net of inflation. Table 2.4 then sets out how the rates of growth which were actually achieved by some of the countries set out in Table 2.3 might plausibly have been accomplished, recognising that this is intended to be an illustrative presentation rather than a precise description of what happened. The intention is

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to test whether the proposition that some categories of investment are much more productive than others can explain the high growth rates – or lack of them – which were actually achieved. The aim is to arrive at a coherent set of numbers, particularly for social rates of return, which a sense check indicates have reasonable and plausible values.

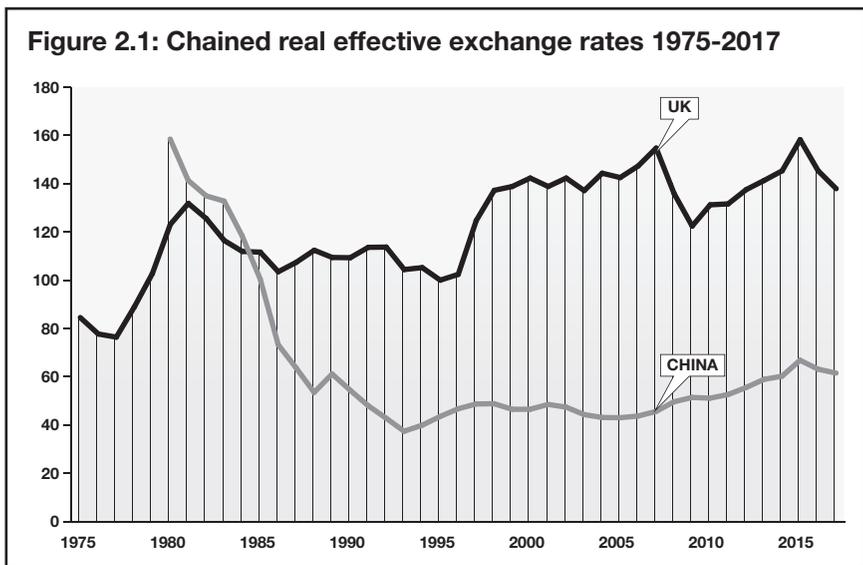
Table 2.4: Social rates of return on investment						
	UK	China	World	Japan	Korea	Singapore
High Powered Investment as a % of GDP	3.0%	15.0%	6.0%	15.0%	10.0%	9.0%
– Estimated average Social Rate of Return	33.0%	53.5%	42.0%	62.5%	25.0%	50.0%
Contribution to Growth	0.99%	8.03%	2.52%	9.38%	2.50%	4.50%
Low Powered Investment as a % of GDP	14.0%	22.0%	20.0%	14.0%	20.0%	17.0%
– Estimated average Social Rate of Return	3.0%	5.0%	5.0%	6.0%	5.0%	5.0%
Contribution to Growth	0.42%	1.10%	1.00%	0.84%	1.00%	0.85%
Total Projected Growth	1.41%	9.13%	3.52%	10.22%	3.50%	5.35%
Actual Average Social Rate of Return	8.0%	25.0%	14.0%	35.0%	12.0%	20.0%
Total Actual Investment	17.0%	37.0%	26.0%	29.0%	30.0%	26.0%
Actual Growth Rate	1.4%	9.1%	3.5%	10.1%	3.5%	5.3%

The presentation in the table above depends on three key simplifying assumptions, which are:

1. Investment projects can be divided into two distinct broad categories, with high powered investment round mechanisation, technology and power separated from all other forms of investment designated in the table as lower powered. In practice, investment projects are on a spectrum of social rates of return but this does not alter the fact that some are have far higher returns than others.
2. All growth comes from investment rather than being achievable via other means such as education and training. It is assumed that all inputs of this sort are embodied and coupled to investment.
3. Gross investment is a reasonable proxy for investment net of depreciation.

The key conclusion, to be taken from Tables 2.3 and 2.4, is that the average overall social rates of growth actually achieved entail that at least some forms of investment must be capable of returns of the order of 50% per annum or more in favourable circumstances. If this was not the case, the overall social rates of return achieved by high growth rate economies, such as Japan after World War II and China more recently, would never have been achievable.

If investment with high social rates of return is the key to rapid economic growth, what kind of environment is needed to secure this outcome? This is a key issue which this book sets out to address. The answer is that most investment in mechanisation, technology and power has its natural home in the privately owned internationally tradable light industrial sector, where the private return on capital is key. The key to encouraging investment with the highest social rates of return to take place is, therefore, that it should have good international profitability prospects. Without reasonably well assured expectations of profitability, investment of these types will not occur.



Sources: *International Financial Statistics Yearbooks*, Washington DC, IMF. 2000 edition: pages 344 & 345 for China and 980 & 981 for the UK; 2010 edition: page 229 for China and 744 for the UK; 2018 edition: page 279 for China and 1055 for the UK. Based in all cases on Relative Unit Labour Costs.

Tax incentives, such as generous capital depreciation allowances, may assist, but they will only help at the margin in turning unprofitable projects into those with a reasonable chance of producing a worthwhile return. Good institutions help but they will not produce significant economic growth without profitability. Economic growth is generally aided by factors such as stable institutions, a fair and reliable legal system, good education and training, high quality infrastructure, a well-developed banking system and lack of corruption. On their own, however, none of these are enough to achieve significant productivity improvements, as the conditions in most western countries show to be the case. It is also significant that many of these institutions were in place in various parts of the world before the Industrial Revolution started, without producing any significant growth.

The really crucial requirement to be met to enable the categories of investment with the highest social rates of return to flourish is that the cost base charged out as overhead costs on their output should be at a competitive level. Figure 2.1 shows why the UK has comprehensively failed to achieve this condition over the past four decades – reflecting a situation which, as we shall see, has existed in varying degrees in the UK for nearly all the period since the Industrial Revolution got under way.

Could it have been different? The rate at which any economy grows – as an accounting identity and as Table 2.3 shows – is the proportion of its GDP devoted to investment times the average social rate of return achieved on that investment. Lifting economic growth from barely 1.5% per annum – of the current level of performance in nearly all the West – to, say, 3.5%, which is about the world average, therefore involves essentially nothing more complicated in principle than shifting 4% of GDP out of consumption and into investment with an annual social rate of return of 50%. 4% times 50% equals the additional 2% growth in GDP which is required to change a growth rate of 1.5% to one of 3.5% per annum. This is the only way in which a really major upward change in our growth rate can be achieved.

The claim presented here is that this account provides a much more realistic and pragmatic way of understanding what produces

economic growth than the total factor productivity approach, based on the work done by Solow and Swan, which does not, as is widely recognised, really explain the way in which growth in output actually materialises. It does not, therefore, provide a basis for ameliorative policy prescriptions which accounts for the fact that economists have been very poor at explaining how economic growth is generated and why it varies in the way it does.

For this account of economic growth to be accepted as substantially correct, it needs to be capable of providing a plausible and coherent account of our economic history, to be able to explain why major trends and developments panned out the way they have done and to account for what has led up to our current condition. The following chapters set out a history of what has happened against which to test how plausible an account this provides as to why the UK has dropped right back in the economic growth stakes while others have moved ahead much faster, why our economy is so unbalanced, and what needs to be done to get it to perform much better. A key feature of this account of events is to highlight just how large a role exchange rates – whether low enough to make the economies concerned competitive or too high for their most productive categories of investment to flourish – have played in economic history.

Borrowing and lending

If the UK economy – or any other one for that matter – is going to be run on a stable and sustainable basis, borrowing and lending both need to be kept within manageable limits. The UK has not done well in this regard and any policy designed to get us onto a reasonably steady and sustainable growth path needs to achieve a much more balanced outcome than we have managed to attain for a long time.

Two tables are needed to set the scene. The first one, Table 2.5, shows the make-up of the balance of payments for the UK since just before the 2008 crash. These figures show a reasonably stable position on the trade balance and on net transfers overseas, combined with an alarming deterioration in our net income from

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abroad culminating in a very substantial worsening in our overall balance of payments. As a proportion of GDP, this is trending towards an annualised figure of £100bn, not far short of 5% of GDP and clearly far too high to be indefinitely sustainable.

Year	Trade balance	Net income from abroad	Net transfers from abroad	Net totals
2007	-30.7	-7.3	-13.4	-51.4
2008	-34.2	-14.7	-13.6	-62.5
2009	-24.8	-11.5	-15.2	-51.6
2010	-32.0	1.1	-19.9	-50.8
2011	-15.0	6.6	-20.8	-29.2
2012	-20.1	-17.8	-20.9	-58.8
2013	-22.8	-36.3	-25.7	-84.8
2014	-26.0	-38.0	-23.9	-87.9
2015	-26.5	-43.9	-23.7	-94.0
2016	-32.3	-47.9	-23.7	-104.0
2017	-25.1	-24.7	-22.5	-72.3
2018	-29.8	-27.5	-25.6	-82.9
2019	-25.9	-30.3	-27.5	-83.8

Source: Time Series Dataset. London: ONS, December 2016. ONAS codes are IKBJ, HBOJ, IKBP and HBOP.

	Public sector	Corporations	Households	Rest of the world	Net totals
2006	-40.9	-16.5	16.8	42.6	2.1
2007	-40.8	-46.1	38.0	51.6	2.6
2008	-81.8	-17.0	38.2	62.2	1.6
2009	-156.0	16.3	88.6	51.3	0.2
2010	-148.7	1.9	95.4	51.5	0.2
2011	-124.6	23.9	70.2	30.0	-0.5
2012	-139.7	10.3	69.3	59.3	-0.8
2013	-98.5	-41.1	52.9	86.0	-0.6
2014	-103.5	-48.0	61.9	89.9	0.3
2015	-88.0	-81.9	-72.0	96.0	-1.8
2016	-66.8	-73.5	32.6	105.7	-2.0
2017	-50.9	-27.6	4.0	73.9	-0.6
2018	-47.6	-41.4	6.5	85.4	2.9
2019	-46.1	-52.0	7.1	84.6	-6.4

Source: Time Series data supplied by the Office for National Statistics, London: March 2020. Figures for 2018 and 2019 are still being reconciled by ONS and the net totals will also be very close to zero when this process is complete.

Table 2.6 shows the borrowing and lending done by the four major sectors of the economy: the government, businesses, households and the foreign balance between 2006 and 2019. As a matter of accounting logic, all the deficits and surpluses within these sectors have to sum to zero because the total of all borrowing has to come to the exact total of all lending.

Total public sector borrowing, having peaked at a very high level immediately after the 2008 crash, was continuing to trend downwards before the pandemic arrived but was still a very long way from being eliminated. Consumers had become much less significant lenders, which partly explains why the government deficit was coming down despite the balance of payments deficit going up. The corporate sector had been hoarding cash rather than investing it, reflecting the current low levels of business investment, which badly needs to be increased. Throughout the period, covered by the figures, the government was a large-scale borrower while lending from abroad closely matched the UK's balance of payments deficit which, in effect, it financed.

The key conclusion to be drawn from these figures is that it is not possible to reduce the government deficit substantially if there is a large balance of payments deficit because, to a large extent, government borrowing and lending from abroad are mirror images of each other. This is because, in all normal circumstances, lending and borrowing by either the corporate or the consumer sectors are both relatively small compared to the scale of borrowing or lending by the government and other nations, and they also tend to cancel each other out. Since corporate and household transactions and borrowing from abroad are both difficult for the government to control, and because their net effect has been to suck demand out of the economy, as long as there is a balance of payments deficit, the government is left with no alternative but for its expenditure to exceed its income by a wide margin if demand in the economy is not to collapse.

This being the case, however, severely limits the government's capacity to reduce borrowing by cutting its expenditure or increasing taxation. If the balance of payments deficit stays the same as it was before, the effect of austerity policies is then not

to reduce government borrowing but to tip the economy towards recession, leaving the government deficit as large as it was before but with the economy operating at a more depressed level. Welfare payments increase and the tax take falls, leaving the government deficit about the same size as it was before the expenditure cuts and tax increases were implemented. In these circumstances, austerity policies to reduce the government borrowing do not add up. The only realistic way to bring the government deficit down is to get the balance of payments deficit reduced, bringing us back to the range of policies which need to be implemented for many other reasons.

There is, nevertheless, a counter-argument which needs to be considered. This is that it is not the UK's current account balance of payments which makes the government need to borrow so much, but that the causation goes the other way. In other words, it is the size of the government deficit which is responsible for the foreign payments position being so badly in the red. If this is the case, then the solution to the balance of payments problem would be to reduce the government deficit – and to do this somehow in a way which was not heavily deflationary.

The problem with this argument is that analysis of what causes the foreign payments deficit does not support it. At least two of the three major components of our balance of payments deficit – our negative net income from abroad and the UK's transfers overseas – would not be significantly changed by any general reduction in the government's deficit. Returns on investment are fixed by the markets and not by the government. Obviously, our overseas transfers – especially those to the EU and on our aid programmes – could be reduced if government policy changed on these specific topics, but this is an argument about the impact of particular policy alterations on government finances rather than a general argument for believing that reductions in the government's deficit *per se* will improve the foreign payments balance. Our trade deficit – the third major balance of payments component – would be reduced if the economy was plunged into a sufficiently large recession to reduce our imports significantly – but this is not what the proponents of direct action on the scale of government borrowing have in mind. They do not want a recession. Their problem is that there is no

discernible mechanism – while deflationary policies are avoided and while other policies remain broadly the same – to show why raising taxation or reducing expenditure would exercise any positive incidence on either the trade balance, net income from abroad or transfers to other countries. We are back to the core proposition that the only way to reduce or eliminate government borrowing is to get rid of the country's balance of payments deficit.

There are also a number of other aspects of borrowing and lending which need attention. If we are to get the economy to grow faster, we will need to invest a lot more of our GDP every year than the 17% in total, if intangibles are included – which we devote to paying for it at the moment. The world total average is about 25% and in China the ratio is nearly 50%,⁶⁵ indicating that, if we are to have our economy growing at the world average speed of around 3.5%, we will have to increase the proportion of our GDP which we spend to close to the 25% world average. About 8% of GDP is going to have to be shifted out of consumption and into investment. How is this to be done, especially if, at the same time, we are faced with the fact that a nearly 5% balance of payments deficit means that we are already enjoying a standard of living which is well above what we are earning? There are, in fact, three overlapping problems which have to be confronted.

The first is that, at least as a proportion of GDP, consumption is going to have to fall. If, however, the economy can be made to grow much more rapidly than it has done recently, a relative fall does not have to be an absolute decrease, as long as the economy is growing fast enough. As experience both from our own history and that of other countries shows, this is not an impossible condition to fulfil given the right mixture of policies and, in particular, the high rates of return potentially available from light industry.

The second is that, both to provide the necessary new industrial capacity and to move the overall level of investment in the economy as a percentage of GDP up to a level capable of supporting sustainable growth, while at the same time shifting the economy away from running its currently very large current account deficit, there would have to be a major shift towards a higher level of saving. Some of this could be done by consumers, some by business, some by the

government and some by temporarily running a large balance of payments deficit. To make this happen, however, there would need to be radical changes to the ease of financing industrial investment. To do this we need to borrow from the financial policies developed largely at the instigation of Dr Osamu Shimomura (1910-1989) to support the enormous increase in industrial output achieved by Japan during its huge economic expansion after World War II. This was achieved by using the state, through its banking system, to make almost unlimited credit available to industry. Either existing UK banks – or new ones which may well be required if the old ones won't change – are going to have to adopt radically different lending strategies to those currently in place to help finance the much larger scale of industrial investment which is going to be needed.

Third, it will then be possible to move away from Quantitative Easing, ultra-low interest rates and the huge levels of government borrowing which have been necessary to deal with the 2008 crash and more recently with the impact of the coronavirus pandemic. These policies have been crucial to help protect our economy, but they are not sustainable. The accumulation of more and more debt combined with interest rates which do not provide a fair balance between savers and borrowers are not the way ahead once the immediate crisis is behind us. Sooner or later we will need less debt and higher interest rates, based on higher rates of real investment, more saving and debt ratios rising more slowly than GDP.

Elasticities

If, as this book argues, the UK economy has for many years suffered from an overvalued currency judged by its falling share of world trade, low growth rate and other imbalances, and still does despite the falls post the June 2016 EU referendum and the arrival of Covid-19, it seems that there should be an obvious remedy. This would be to bring down the value of the pound to the level required to enable the UK to compete successfully in the world economy. There are a number of practical difficulties to implementing such a policy, which are discussed later, and which generally are relatively easy to refute. There is, however, a more

substantial objection. This is that the price sensitivity of the UK economy is just too low to make a more competitive exchange rate strategy work.

Reasons for thinking that this might be the case rest partly on some elements of our recent experience. These include the relatively anaemic response of the UK economy to the fall in the exchange rate from about \$2.00 in 2007 to \$1.50 in 2009 and the relatively small – though far from negligible – improvement in performance following the post-2016 referendum depreciation. Opinions are also coloured by academic work which has shown that the current price sensitivity – the price elasticity of demand – for British exports and imports may be too low to make a devaluation strategy viable.

Price elasticity is defined as the ratio between the increase in quantity of sales of goods to the change in prices at they which are offered. Thus, if a fall in price of 1% produces an increase in sales volumes of 2%, the elasticity would be 2. Similarly, with imports. In other words, to achieve an elasticity of more than 1, the loss of money value of exports due to their fall in price must be more than offset by their increase in volume, while on the import side the increase in cost of imports must be more than offset by their reduction in volume. The outturn which has to be achieved to make a devaluation produce a better ex-post trade balance than the one ex-ante is called the Marshall-Lerner condition and it is that the sum of the elasticities for exports and imports (ignoring any negative signs) is more than unity. Thus, the elasticities for exports and imports, viewed separately, may each be less than 1 but their combined total can still be above unity.

Studies of these elasticities are normally broken down into short term effects – within one year – and those which are longer term – over two to three years – once the economy has had time fully to adjust. Since it takes less time for increased import cost to work their way through the system than it does for additional export capacity to become available, the longer-term elasticities, especially for exports, tend to be considerably greater over two to three years than they are immediately.

A substantial amount of work has been done over the years, both by academics and by organisations such as the IMF, to try to

determine what these price elasticities are in practice. Shown below are two tables, Table 2.7 summarising work done by academics covering the last quarter of the twentieth century and the other, Table 2.8, produced by the IMF covering the early part of the twenty-first century. These show relatively high elasticities both for the UK and other countries. More recent work, however, has indicated that the elasticities, at least for the UK, are considerably lower than those in these tables – indeed with the sum of the elasticities being barely above unity.⁶⁶ These figures are consistent with the relatively poor response of the UK economy to the 2007/09 devaluation and more recently post the 2016 fall in the exchange rate.

There is, however, a clear explanation as to why these elasticities have altered, which relates back to the comments on price sensitivity. We know that services, which comprise about 45%⁶⁷ of our export revenues, are not very price sensitive. We also know that the export industries which are left – high tech ones such as aerospace, arms, vehicles and pharmaceuticals – are also relatively price insensitive. What would be much more price sensitive – the output of tradable light industrial products – is no longer available as nearly all this industry is no longer in business as the proportion of GDP coming from manufacturing has fallen from almost a third 50 year ago to barely 10% now. In sum, the current elasticities for UK exports and imports are as low as they now are because the high exchange rates over the last few years have eliminated nearly all the sectors of the economy – essentially medium- and low-tech light industry – where the elasticities would be higher if these production facilities still existed.

Now there are two essentially separate variables which price elasticities measure. One is the responsiveness of whatever is being exported and imported now to changes in price. To what extent would production from existing operations increase if the exchange rate was lower? The other concerns decisions about where new manufacturing production might be located if the exchange rate was different. At what point would the UK cost base become low enough for it to be more profitable to site new factories in the UK rather than in, say, the Far East? The crucial insight is that price elasticities relating to where investment in new production

facilities are located are much higher than those stemming from responses in sales volumes from existing production facilities. This is why two- or three-year elasticities are much greater than those in year one and why the UK responded so relatively sluggishly to recent devaluations. The drop from \$2.00 to \$1.50 to the pound made almost no difference to where it was worth locating new light industrial capacity. It was completely uneconomical in nearly all cases at both \$2.00 and \$1.50 to the pound. The parity needed to be much lower than this to make reshoring on any major scale feasible. Instead deindustrialisation continued its relentless progress, with manufacturing falling as a percentage of GDP from 15% in 2000 to 10% in 2015.⁶⁸

The crucial issue, then, is what exchange rate would be needed to make the establishment of UK light industrial manufacturing capacity viable again, which means that it would need to be clearly expected to be profitable, otherwise the necessary investment would never take place. The graph on page 48 gives some indication, as does the history of the UK's real exchange rate over the past few decades. So too does the difference in the costs of producing a swathe of light industrial goods in the UK rather than in the Far East or in Germany. This evidence, plus more detailed calculations based on all the evidence from elasticities,⁶⁹ indicate that sterling would need to fall to somewhere around \$1.00 and €0.85. As, post the EU referendum and the coronavirus crisis, the dollar-sterling exchange rate has already fallen from about \$1.45 to \$1.25, the additional amount of depreciation required is much less than it was previously and, therefore, correspondingly easier to achieve. Furthermore, for a number of reasons, sterling should not need to fall further than this, again making a potential transition more stable and thus more manageable.

It costs about 10% to ship goods from the Far East to the UK so that we would not have to compete directly with Chinese production costs. Another is that our strong service sector sales mean that, to rebalance our economy so that we could pay our way in the world, we would not have to reindustrialise to achieve the same proportion of GDP coming from manufacturing industry as countries such as Germany, where manufacturing in 2018 accounted for 22% of GDP,

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Table 2.7: The elasticity of demand for exports and imports of 16 industrial and eight developing countries

Summary of numerous late 20th century academic studies

Industrial countries	Elasticity of demand for exports	Elasticity of demand for imports	Sum
Austria	1.02	1.23	2.25
Belgium	1.12	1.27	2.39
Canada	0.68	1.28	1.96
Denmark	1.04	0.91	1.95
France	1.28	0.93	2.21
Germany	1.02	0.79	1.81
Iceland	0.83	0.87	1.70
Italy	1.26	0.78	2.04
Japan	1.40	0.95	2.35
Korea	2.50	0.80	3.30
Netherlands	1.46	0.74	2.20
Norway	0.92	1.19	2.11
Sweden	1.58	0.88	2.46
Switzerland	1.03	1.13	2.16
United Kingdom	0.86	0.65	1.51
United States	1.19	1.24	2.43
Average	1.11	0.99	2.10
Developing countries	Elasticity of demand for exports	Elasticity of demand for imports	Sum
Argentina	0.60	0.90	1.50
Brazil	0.40	1.70	2.10
India	0.50	2.20	2.70
Kenya	1.00	0.80	1.80
Morocco	0.70	1.00	1.70
Pakistan	1.80	0.80	2.60
Philippines	0.90	2.70	3.60
Turkey	1.40	2.70	4.10
Average	1.10	1.50	2.60

Notes: The estimates above refer to elasticities over a two to three year period. The figures are based upon the result of a number of different studies. Individual studies give differing estimates depending on the time periods involved, the econometric methodology employed and the particular data sets used.

Source: *Does Exchange Rate Policy Matter?* European Economic Review vol 30 (1987), p 377, reproduced on page 63 of *International Finance* by Keith Pilbeam, Basingstoke, UK: Macmillan, 1994.

Table 2.8: Elasticity of demand for exports and imports 2001-2004
 Estimates produced by the IMF and published in 2010

	Export long run	Import long run	Total
Australia	0.70	1.61	2.31
Austria	1.20	0.88	2.08
Belgium	2.10	0.56	2.66
Canada	1.32	0.83	2.15
Czech Republic	0.82	1.20	2.02
Denmark	1.27	0.78	2.05
Finland	1.23	0.01	1.24
France	1.14	1.03	2.17
Germany	2.51	0.10	2.61
Greece	1.13	1.11	2.24
Hungary	0.88	0.83	1.71
Iceland	0.91	1.46	2.37
Ireland	0.84	0.34	1.18
Italy	0.99	0.97	1.96
Japan	1.72	0.75	2.47
Korea	1.02	0.21	1.23
Luxembourg	2.65	2.63	5.28
Netherlands	1.04	0.73	1.77
New Zealand	1.01	0.94	1.95
Norway	0.33	1.61	1.94
Portugal	1.65	1.46	3.11
Slovakia	0.84	0.83	1.67
Spain	1.08	1.33	2.41
Sweden	1.84	0.04	1.88
Switzerland	1.27	0.78	2.05
United States	1.77	1.52	3.29
United Kingdom	1.37	1.68	3.05
Mean	1.28	0.97	2.25
Median	1.14	0.88	2.02

Sources: Export Supply Elasticities Table 2, page 21, and Import Demand Elasticities Table 1, page 15 in *A Method for Calculating Export Supply and Import Demand Elasticities* by Stephen Tokarick. Washington DC: IMF Working Paper WP/10/180, published 2010. NB Signs have been reversed for Imports in the table above for the sake of clarity.

or Japan at 19% or Switzerland at 18%.⁷⁰ We would, however, need to get the proportion of our GDP coming from manufacturing up to some 15%, not least to enable us to reduce our foreign payments balance to a sustainable level.

To make this happen, the government would need to have an exchange rate target in the public domain and be determined to take whatever steps were necessary to keep it within the target range. No one is going to invest heavily in manufacturing capacity if there is a serious risk that, as soon as the economy shows signs of doing better, the exchange rate is encouraged to rise again as, unfortunately, has for many years been the pattern.

We turn now to economic history to see what this can tell us about the way the economies of the UK and the rest of the world have developed, and to explain how our current problems of imbalance and slow growth have arisen and what we can do about them.

3.

Industrialisation

The Ancient World

Between the dawn of civilisation and the start of the Industrial Revolution, living standards for most people hardly rose at all. GDP per head, measured in 1990 US dollars, averaged an estimated \$444 across the whole of the world at the time of Christ. By 1000AD it had fallen slightly to \$435 but by 1820, as the Industrial Revolution begun to get under way, over about 800 years it had risen to a world average of \$667,⁷¹ largely as a result of what was happening in the West where, by 1820, the figure was \$1,130 compared to \$573 in the East – much the same as it had been 300 years earlier. Over the next 200 years the world was transformed. By 1998, the figure for the West was \$21,470 and for the East it was \$3,120.⁷²

Because there was a very significant increase in the world's population between the time of Christ and 1820 – from about 27m to just over 1bn⁷³ – there was a corresponding increase in world GDP, but growth in output as a result of rising population is a very different matter from growth which raises average living standards. Why was there so little increase in output per head among the world's population until the Industrial Revolution got under way? Why did none of the key developments which led to sustained growth in output per head come together to any significant extent before the middle of the eighteenth century? The reasons are complex and interlocking, but appreciating why for thousands of years living standards remained almost static despite the institutional improvements and intellectual discoveries upon which the Industrial Revolution eventually depended, sheds important light on what had to happen to enable it to get started.

The first recognisable states made their appearance in the Fertile Crescent, about 3700 BC. To enable them to function a fair degree of economic organisation must have been essential, and evidence shows that this had indeed materialised.⁷⁴ An elaborate system for recording debts and obligations was required, which took the form of baked clay tablets, organised largely by the priesthood who formed the backbone of the state administration. This system provided an important step towards the creation of money, since the obligations recorded by the clay tablets could be transferred or assigned.

The next stage was the invention of money proper. Barter tokens were minted by the Chinese in the second millennium BC, but true coinage was invented in the western world in Asia Minor about 700 BC, in the Kingdom of Lydia.⁷⁵ Originally made of electrum, a local natural amalgam of gold and silver, the first coins were produced by the fabled Croesus of Lydia (d 546 BC) in the sixth century BC.⁷⁶ The invention of coinage greatly increased the scope for trade, and it is no coincidence that the explosion in exchange of goods, and the establishment of colonies within the Mediterranean basin which followed, occurred over the next couple of centuries after coins first appeared on the scene.

The ancient world, therefore, succeeded in developing the credit systems necessary to enable an extensive trade and commercial network to exist, to make it possible to establish large-scale states, to operate complex tax systems, to undertake extensive public works, and to fund and maintain large-scale armies. At first sight, it might appear that the Roman Empire, in particular, had all the necessary requirements to enable a beginning to be made on applying technology to the perennial problems of economic shortage. For nearly four hundred years after the consolidation which took place under Caesar Augustus (63 BC – AD 14), it encompassed a large and varied area, where peace and order generally prevailed. There was a relatively efficient and impartial legal system. The Roman Empire was beset intermittently by inflationary problems and plagues – but they did not stop there being substantial accumulations of capital. Interestingly, the Roman period is the only one when, until very recently, most of Europe was covered by a common currency.

Some industrial processes, such as smelting, were well known. A considerable quantity of theory about scientific matters, mostly developed by the Greeks, was available. Indeed, a steam engine of sorts, used as a toy, had been developed by the Greek polymath Hero (c.10-c.70AD), in Alexandria, one of the centres of Greek learning.⁷⁷

There was, therefore, a substantial artisan class, capable of contributing practical knowledge and experience to new ideas about production methods. The standards of education, especially among the more prosperous classes, were reasonably high. Both the Greeks and the Romans produced superb examples of civil engineering, varying from the Parthenon to the Roman road system, with about 40,000 miles of paved roads in use.⁷⁸ And yet, despite all of these apparently favourable circumstances, there was almost no technological development at all for all of the hundreds of years which Greek civilisation and the Roman Empire lasted. Why did nothing resembling the Industrial Revolution occur? There appear to be several reasons, of which the more significant form an interlocking pattern. They all throw light on why the Industrial Revolution, when it gathered pace in Europe in the eighteenth century, although arguably the most important event in human history, was also one whose trajectory was remarkably difficult to have foreseen.

First, there was nothing equivalent to the body of scientific knowledge that had accumulated in Europe by the time the Industrial Revolution got under way, which was a very different matter from the speculations of ancient Greek philosophers. It is true that many of the early inventions which got industrialisation started in Britain were developed by highly skilled journeyman engineers rather than intellectuals. Examples are: the flying shuttle invented by John Kay (1704-1779), which first appeared in 1733, the water frame (1769) from Richard Arkwright (1732-1792), the spinning jenny (1770) from James Hargreaves (1720-1758)⁷⁹ and the steam engines developed by Thomas Newcomen (1664-1729) as early as 1712, but greatly improved from 1769 onwards by James Watt (1736-1819).⁸⁰ Nevertheless, the climate of opinion in which all these people worked had undoubtedly been heavily influenced

by the writings of proponents such as Francis Bacon (1561-1626), of what came to be called the 'scientific method'. This was the system of experimentation and verification on which technical advance was to be built. This was a far cry from the methods employed by the most influential intellectual leaders in the ancient world, particularly the most important Greek teachers such as Plato (427-347 BC) and Aristotle (384-322 BC), who relied much more on derivation of conclusions from first principles than on empirical experiments.

Second, the Industrial Revolution was not a complete break with the past, in the sense that new practical inventions suddenly started materialising in a way which had never happened before. On the contrary, it was an acceleration of a process which had been slowly gathering pace for hundreds of years, providing a much more formidable basis for advance than existed at any stage during the period covered by the ancient world. As well as high profile inventions, such as the printing press, clocks, eyeglasses, and lateen sails, all of which were of crucial significance, there had been many other improvements in technology which had slowly accumulated over the centuries, or been imported from other parts of the world. These included the manufacture and use of gunpowder and paper, techniques for smelting many metals, and processes for handling a wide variety of other substances, from glass and porcelain to sugar and other foodstuffs.

Third, as well as technical knowledge, the Romans and Greeks lacked what may have been an equally crucial intellectual component, which was an adequate mathematical system. The whole of the ancient world operated on methods of counting such as Roman numerals. There was no true concept of zero. No calculations were possible which were more complicated than could be handled on an abacus. The universal modern numbering system was invented in India in the fourth century AD and took eight hundred years to reach Europe via the Islamic Arab states. It was first publicised in the West by Leonardo Fibonacci (c.1170-c.1250), also known as Leonardo of Pisa, in his *Book of the Calculator*, which appeared in 1202 and rapidly led to the adoption of the so called Arabic – though originally Indian – notation; first

in Italy and then throughout Europe.⁸¹ Not only did the new numbering system make it much easier to carry out relatively complicated calculations, it also made it possible for mathematics to develop much more complex ways of solving problems than had been possible previously. It is no coincidence that the advance of mathematics in Europe began to accelerate rapidly once the new notation had been introduced.

Fourth, another major requirement for the development of as complex a division of labour, and hence as complicated an economy as the Industrial Revolution required, was a much more sophisticated credit system than the ancient world ever had. Until well into the Middle Ages, no true banks existed. Of course, before then, there were merchants who kept their stores of wealth in the form of gold coins, and who were willing to lend against security, and there were plenty of money lenders and changers in the ancient world, many of them ex-slaves.⁸² The inefficiency of the old mathematical systems, however, and the difficulties involved in maintaining records before printing and paper manufacture had been perfected, both militated against sophisticated banking operations. These problems were solved by the advent of the new mathematical notation, major improvements in paper production, the invention of double entry book-keeping, and the subsequent rapid development of accountancy as a profession. All of which added to the ease with which complicated records could now be kept. The result was the development of true banks, first in Italy and then throughout Europe, as great banking dynasties established themselves – the Medici in Italy, the Fuggers in Germany – with many smaller-scale banking enterprises following in their wakes.⁸³

Fifth, even the development of banking proper left the economies of the time heavily dependent on adequate supplies of gold and silver to provide sufficient coinage to make the financial system operate. Some leverage could be provided by the use of financial instruments, such as bills of exchange, used mainly to finance trade, but the scope was limited until the invention of the next major step forward, which was the introduction of paper currency. Although, again, there had been precedents in China, culminating in the first true bank note materialising there in the seventh century AD, the

issuing of notes began in the West at the end of the seventeenth century,⁸⁴ led by the Bank of England, established in 1694 as a private corporation, the status it retained until it was nationalised in 1946.⁸⁵ Bank notes were not originally designed for general use, but were issued in large denominations, mostly for the financing of trade. Essentially, they were bearer cheques, drawn in the UK on the Bank of England. Their impact, however, was to make it possible to separate still further the limited availability of gold and silver and the increasing amount of credit which could be extended by the banking system as a whole, by creating facilities such as overdrafts, leveraged on the underlying precious metals.

Sixth, even apart from the shortage of technical opportunities, the unconducive intellectual climate, the lack of appropriate methods of calculation, and the undeveloped credit system, there may be another perhaps even more fundamental reason why the ancient world failed to industrialise. Its society was too regimented, too top-down, too stable and therefore, despite the wrenching changes which periodically took place at the top, too stagnant and lacking in vigour to embark on the kind of free-thinking progress that the Industrial Revolution required. Technical progress may also have been held back by the widespread existence of slavery, which both lowered the cost and social prestige attaching to productive labour.⁸⁶ It is no coincidence that much of the early impetus in Britain and elsewhere came from dissident, independent people, who were excluded because of their religion or for other reasons from the established mainstream, but who were not precluded by convention or fear of retribution from trying new ways of doing things. It was the combination of their attitude of mind with the availability of all the other components which the ancient world lacked which triggered off the start of industrialisation on a scale which was completely irreversible once it got started, and which was to spread and transform the whole of the rest of the world.

Even if the ancient Mediterranean culture of the Greeks and Romans failed to give birth to industrialisation, it does not necessarily follow that it could not have begun somewhere else before it did in fact begin, mostly in eighteenth century Britain. Some of the factors required were available elsewhere, and perhaps

most of them in some cases. There were major unified states in China, India, and in the Islamic countries and, for a considerable period, in central Asia too, as well as many smaller, reasonably stable polities, most of them with access to more technology than the ancient world possessed. In varying degrees, they were in touch with at least some of the cultural and intellectual developments taking place in Europe.

The state which came closest to breaking through into industrialisation was China during the fifteenth century, but the progress made was snuffed out by the country's leaders, who turned back to traditional ways.⁸⁷ India, on the other hand, never showed any more signs of sustained industrial development than the Romans, despite the ability of the Mughal culture to build the Taj Mahal, its high point of excellence both in design and execution. Nor were smaller nations elsewhere any better at producing sustained economic growth. On the contrary, it was in Europe, divided into a large number of relatively small states, all in competition with each other, that there began to be a slow cumulative increase in living standards, starting early in the second millennium, which eventually produced the Industrial Revolution and the transformation in prospects for humanity which it brought in train.

The Industrial Revolution

The Industrial Revolution, which began in Britain in the eighteenth century, evidently rested on a foundation built over hundreds of years. Since the Middle Ages, and at least since the fourteenth century, there had been a slow increase in output per head in Europe, set back from time to time by pestilence, bad government and devastation caused by wars. This growth had come about partly as a result of improved agriculture, partly as a result of increased trade, based on the availability of an adequate credit system, but mainly because of the application of new ideas, some based on novel technology, to a wide variety of production processes.

The Industrial Revolution was built on the foundation of the slow accumulation of a large number of technical advances over hundreds of years. The advent of the printing press vastly

reduced the cost of producing books, and thus of disseminating knowledge. The developments in ship design and navigation greatly decreased the costs of trading, while opening up large sections of the world which had previously been unknown to Europeans. The resulting exchange enabled gains from specialisation in the production of goods and agricultural products to be realised – which had never been available before. There was a steady improvement in the working of metals, providing the basis for the production of machinery. The Renaissance and the Enlightenment provided a ferment of ideas, some of which fed through to industry to provide a much clearer explanation of how industrial processes worked. Not least of these were advances in mathematics, which made it easier for calculations relating to production processes to be done quickly and accurately. At the same time, there was a steady accumulation of practical knowledge acquired by increasingly skilled labour forces, capable of putting new ideas into operation.

The Industrial Revolution quickened and began to gather pace faster in Britain during the eighteenth century than elsewhere, allowing the British to take over economic leadership from the Netherlands. During the previous two centuries, the Dutch had built up a formidable economy based on a combination of trade and commerce, which had provided a higher standard of living than had previously been achieved anywhere else. As was to happen so frequently in the future, however, the accumulation of wealth and financial power, which appeared to make the state so strong, gradually became its undoing. As financial interests, with their usual predilection for hard money, became increasingly dominant, the exchange rate rose, and the rising costs of doing business in the Netherlands, compared to elsewhere, caused economic activity to drift away, not least to Britain.⁸⁸ The Dutch economy stagnated, and its lead was lost, though the reasons why this occurred – essentially the same overvalued exchange rate problem which was to be Britain's undoing in the nineteenth century and subsequently – were not appreciated at the time, or for a long period to come.

In the meantime, Britain had moved further away from the feudal system of the Middle Ages than most other countries in

Europe. There was a more highly developed system of contract law, and generally a less arbitrary system of government than on the continent. As a result of successfully developed trading patterns, there was an adequately sophisticated banking system and accumulations of capital which could be mobilised for risk ventures. There was also a reasonably stable government. Above all, there was an entrepreneurial class, much of it, characteristically, excluded from mainstream political life in the form of the non-conformists, which was attracted to commerce and manufacturing. There were also major agricultural interests, with much of the land owned by forward looking landowners, involved in exploiting new ideas in agricultural husbandry.

The Industrial Revolution thus got under way in Britain in textiles, pottery, mining and metal working, aided by improvements in transport, such as the development of canals. A combination of outworking and factories led to big increases in output when production processes were broken down into individual specialised functions, as Adam Smith accurately noted in *The Wealth of Nations*. This extremely influential book, published in 1776 at a remarkably early stage of the Industrial Revolution, contained an exceptionally powerful set of ideas about the changes taking place in the industrial and commercial worlds, and how government policy should be organised to take advantage of them. If the early pace in the development of economics set by Adam Smith had been maintained, the subsequent economic history of the world might have been very different.

Not only did the early Industrial Revolution eventually involve rising living standards – on average – for the British people compared to those elsewhere, it also greatly enhanced Britain's power in the world. This made it possible for the British to build and maintain a dominant navy and to deploy and finance the coalition of land forces which eventually won them victory in the Napoleonic Wars. Thereafter, it enabled the British to extend their control over ever increasing areas of the world until, by three-quarters of the way through the nineteenth century, Britain ruled – directly or indirectly – about a quarter of the land surface of the globe.⁸⁹ The accumulation of an empire on this scale undoubtedly provided

Britain with ready access to raw materials and sources of supply of cheap food, as well as a partially protected export market. Earlier, profits from the slave trade had assisted the accumulation of capital – some of which helped to finance the Industrial Revolution in the UK.⁹⁰ The relative decline in the British economy as the territories the British controlled grew in number, however, calls into question whether this major endeavour as whole entailed a net benefit. Faster economic growth elsewhere strongly suggests that the effort and bias in policy involved in building up and running the British Empire, and the cost of maintaining it, were more trouble than they were worth.

While France had a rather lower average standard of living than Britain in the early eighteenth century,⁹¹ many of the other circumstances needed to get industry moving there were also in place. The French, however, were much slower to take advantage of the new opportunities available in manufacturing. Partly this was the result of the arbitrary characteristics of the *Ancien Régime*, which lacked the contract legal system introduced shortly after the 1789 French Revolution.⁹² Partly it was a matter of social pressures, also related to the sense of values of the pre-revolutionary period, which held industry and commerce in relatively low esteem. The result was that French industry tended to concentrate on the manufacture of individually produced items, some of them widely recognised as being of exceptionally high quality, rather than moving to mass production methods. French furniture, tapestries, china and jewellery were internationally renowned, but the cottage industry techniques used for producing them were not the stuff of which industrial revolutions are made. Germany also suffered from disadvantages, many of them similar to those in France, compounded by the patchwork of small states which made up the country, each with its own tariff and economic policies. The southern areas of Europe, Spain, Portugal, Italy and Greece, were all much poorer, and in a weaker position to start industrialising, as indeed remained the case for a century or more. The Netherlands, which had grown richer during the eighteenth century than anywhere else, faltered as its trading and financial success undermined its domestic industry – a story to be repeated many times in the years

to come. It was therefore Britain which made the running for a long time into the nineteenth century.

Europe up to 1914

A recurrent theme in this book – indeed perhaps the most dominant one of all – is how crucially important exchange rates have been to the way economic history has evolved, especially at times when trade and capital flows have been liberalised, and how little their impact, particularly on foreign trade but with ramifications across the whole economy, has been taken into account by policy makers. Nowhere is this truer than in the case of the UK, which has a long history of ignoring the impact of competitiveness on our foreign trade position, with dire consequences for the rest of the economy.

An all too typical – and important – early case took place before the Industrial Revolution had really begun. During the reign of William III (1650-1702), which lasted from 1689 to 1702, the silver coinage which was circulating in the country had been debased by clipping.⁹³ The effect was to devalue the clipped silver currency in relation to gold. As a result, by 1695, the rate of exchange between gold guineas and silver coins, which had previously been twenty to one, had risen to thirty silver coins per gold guinea. Much of the international trade of the time was conducted in silver shillings. What should be done? Should the value of the silver coinage be allowed to remain at thirty shillings to the guinea, or should its value be driven up to twenty?

Leading contestants in the dispute which followed were Sir Isaac Newton (1642-1727) who advocated the former view, and the philosopher John Locke (1632-1704), who favoured the latter. The King accepted Locke's deflationary advice – a dismal and ominous portent for the future. The consequences, as Newton predicted, were falling prices and depressed business conditions. Newton nevertheless became Master of the Mint, and in 1711 he fixed the value of the pound at £3 17s 9d per ounce of gold. Apart from suspensions during, and following, the Napoleonic Wars and World War I, and two short breaks during the nineteenth century caused by temporary financial panics, this parity remained intact until 1931.

The next major controversy over macro-economic policy in the UK took place towards the end of the Napoleonic Wars. The strain imposed on the British economy during the long wartime period, stretching almost without a break from 1793 to 1815, had stimulated output. The economy was much larger and more productive at the end of the wars than it had been at the beginning. The high level of demand had, however, led to substantial inflation, which had nearly doubled the price level during the war years. Britain had gone off the Gold Standard in 1797 because the country banks of the time could not meet the demand for cash caused by the threat of invasion. Too many holders of their bank notes wished to change them into gold. The banks were therefore freed to increase the note issue without gold backing, both in response to the increase in government borrowing to finance the wars, as well as the additional demand for money resulting from expanding national output. By 1810, prices had risen an estimated 76%⁹⁴ compared to 1790, and this was, of course, reflected in the price of gold, which had risen proportionately.

Had prices risen because the money supply had been increased? Or was extra money required to accommodate the growing need for cash as both prices rose and the size of the economy became larger, with the fundamental causes of inflation lying elsewhere? This controversy – still central to economic policy formulation – was the key issue addressed by the *Report from the Select Committee on the High Price of Gold Bullion*, published in 1810, which set out the arguments between the Currency School and the Banking School. The Currency School maintained that under a ‘purely metallic standard’, any loss of gold to, or influx from, other countries would result immediately and automatically in a decrease or increase in the amount of money in circulation. The resulting rigid control of the money supply would provide the discipline to keep price rises at bay. With a mixed currency of metal and paper, however, this system could not operate satisfactorily, unless it was managed as precisely as if it depended on the amount of gold backing the currency. Any deviation from this principle, it was averred, would lead to inflation.

The Banking School, on the other hand, denied that a purely gold-based currency would operate in the manner claimed for it by

the Currency School. Because of hoarding and other uses to which gold could be put, it was far from clear that the amount available to back the currency was as constant as the Currency School claimed it would be. Furthermore, it was contended that the Currency School greatly overestimated the risks involved in expanding paper money. The Banking School believed, on the contrary, that the need for prudence in the process of competitive banking would exercise a necessary restraint on the issue of paper money. This approach would have led to a much more accommodating monetary stance and a lower exchange rate for sterling, but it was not to be. The Committee came down in favour of the Currency principle, by advocating a return to the Gold Standard at the 1797 parity, despite the increase in prices which had taken place since then. The majority concluded that the price rises during the wars had come about because monetary discipline had slipped, and that the only way to secure financial stability in the future was to get the pound back to where it had been previously in terms of its value in relation to gold. The views which prevailed in this report, setting, as they did, the tone of British financial policy for many years into the future, were to have a profound impact on Britain's economic history to the present day.

Despite the reservations of the minority of the Committee, which included David Ricardo, sterling was restored to its pre-war parity against gold during the years following the end of the Napoleonic Wars. This objective was achieved by methods which have an all too familiar ring to them. The money supply was reduced, interest rates were raised, and the pound strengthened against foreign currencies which had mostly left their parities against gold or silver where they were at the end of the Napoleonic Wars. It took six years, from 1815 to 1821, to force wages and prices down sufficiently to enable cash payments in gold at the pre-war parity to be resumed. In consequence, there was a sharp depression as the post-war boom broke, leading to business failures, falling living standards, rising unemployment and great hardship for working people. Opposition culminated in a riot in Manchester in 1819 – Peterloo – which was broken up by a local cavalry force, generating echoes of the battle which had ended the Napoleonic Wars so successfully for Britain

only four years previously. Trade unions were made illegal by the repressive Six Acts, passed into law at the end of 1819.⁹⁵ The final victory of the Currency School, easily recognised as having views close to those of modern monetarists, was the 1844 Bank Charter Act, which locked the pound into its high value measured in gold, the parity which was only finally abandoned in 1931.

The resulting relatively high cost of producing goods and services in Britain compared with the rest of Europe did not, however, hold back the British economy for long. During the first half of the nineteenth century, Britain was the only country which was industrialising fast. In consequence, the cost of goods produced in Britain fell rapidly compared with output elsewhere in Europe, making them very competitive despite the relatively high gold parity for sterling compared to other currencies inherited from the outcome of the banking controversy. The British economy expanded by 2.8% per annum on average for the whole of the period from 1820 to 1851, when the Great Exhibition was held in London, marking the high peak of British pre-eminence. From 1851 to 1871 the growth rate slowed to 2.3%.⁹⁶ Even so, the cumulative increase in wealth and the standard of living was without parallel with anything ever seen in the world before, except in the United States, far away on the other side of the Atlantic and heavily protected by tariffs, but also in Australia and New Zealand where high rates of growth were also being achieved.⁹⁷

With increasing confidence in its industrial capacity, the case for trade liberalisation in Britain appeared to become stronger. The Industrial Revolution had started in Britain behind substantial tariff barriers, themselves a legacy of the mercantilist policies of self-sufficiency, against which Adam Smith had preached in *The Wealth of Nations*. As the expanding population pressed on the domestically produced food supply, however, necessitating increased imports of corn and other foodstuffs, the case for keeping down the cost of living by removing import tariffs and quotas became more appealing. Free trade arguments were also extended to manufactured goods, leading to the trade treaties negotiated in the 1840s and 1850s. By 1860 the total number of dutiable items coming into Britain had been reduced to forty-eight. By 1882 only

twelve imported articles were taxed, and these purely for revenue raising purposes.⁹⁸

Unilateral free trade, however, acts like a revaluation of the currency. It makes imports relatively cheaper than exports. Adopting free trade policies therefore had the same effect as raising the sterling exchange rate, which was already high. Free trade, in consequence, also contributed to Britain's undoing as the nineteenth century wore on. All over Europe, but particularly in France, Germany and the Benelux countries, British manufacturing techniques began to be copied. The initial impulse came primarily from the development of railways, as their construction got under way on a substantial scale all over Europe from the 1840s and 1850s onwards. This necessitated not only major developments in civil engineering, but also large investments in production facilities capable of turning out thousands of kilometres of rail, relatively sophisticated rolling stock, and complex signalling equipment. Characteristically, while in Britain all these developments had been financed entirely by the private sector, in France and Germany the state was heavily involved in railway construction from the beginning, underwriting a considerable proportion of the high risks involved. Differing perceptions about the role of the state vis à vis the private sector across Europe have a long history.

British production techniques were soon copied not only in railways but also in virtually all other fields. Other forms of communications were employed, such as canals which already had a long history in Britain. Mass production of textiles followed, particularly in North East France initially, but soon spreading throughout Europe. Iron and steel output, greatly stimulated by the development of railways, but also providing the basis for the production of metal goods for a wide range of other purposes, began to grow rapidly, particularly in Germany. The output of steel trebled there between 1840 and 1860 and trebled again between 1860 and 1880.⁹⁹ The economies of Europe became better able to compete with Britain for other reasons too. Germany was united first loosely under the *Zollverein* of 1834, and later more tightly under Otto von Bismarck (1815-1898), once Prussia had secured its position of leadership.¹⁰⁰ Everywhere, although much more

rapidly in some places than others, there were improvements in education, the legal system, the organisation of the professions and the training of skilled workforces.

A major turning point came in the 1870s, as the worldwide consumer and investment boom caused by the American Civil War and the Franco-Prussian conflict, collapsed when the wars ended, resulting in a major fall in demand for armaments, and a slow-down in railway building. For the first time, Britain felt the full blast of foreign competition, and the British lead in industrial output became seriously threatened. The value of British exports fell from £256m in 1872 to £192m in 1879. Much of this fall was compensated for in volume terms by lower prices, but not all. The 1872 export figure in money terms was not exceeded again until 1890. In the case of manufactures, the ground lost was not recovered in terms of value until 1903, over thirty years later.¹⁰¹ The growth rate of the British economy stabilised at 2.0% per annum for the last quarter of the nineteenth century. From 1870 to 1900 the economy in Germany grew by 125%, the Netherlands by 96%, Britain by 85%, Belgium by 82% and France by 56%.¹⁰²

The sources of increases in output differed between France and Britain, which were falling back, and countries – such as Germany – which were pulling ahead. In Britain in particular, more and more investment went abroad. In the slower growing economies, a rising percentage of investment went into housing and infrastructure, and a relatively low proportion into industry. Total investment as a percentage of GDP in these countries fell or remained static. Where investments were made in industry, more went into widening rather than deepening the industrial structure. In Britain in particular, there was a vast expansion of the cotton industry and coal mining, both of which were labour intensive, but where large additional productivity gains were difficult to achieve.

In Germany, and, to a lesser extent, elsewhere on the continent, these trends were reversed. A higher proportion of investment went into new industries, such as the production of dyes and chemicals, sophisticated metal products, and later motor vehicles and electrical goods. The significance of these industries was that the scope for increased output and improved productivity

was much greater than in the kind of industries to which Britain – trapped by the strength of sterling within the Gold Standard system – was moving. The circumstances which had given Britain the advantage in the early part of the nineteenth century were reversed. It was Germany and the Netherlands which now had more competitive exports, and which were less prone to import penetration because of the strength of local manufactures and the protection they enjoyed. Influenced particularly by Friedrich List (1789-1846), whose *Das nationale System der politischen Oekonomie* was published in 1837, the continental economies were much more willing than the British to use tariffs to protect their rising industries. This made sense, partly because they were much more nearly self-sufficient in foodstuff production so that free trade had less general attractions. They could therefore concentrate production where the growth prospects were highest and reinvest productively a greater proportion of their national incomes in their own economies.

The result was that by the start of World War I, much of the gap between the income per head in Britain and the rest of North West Europe had closed. Whereas in 1850, GDP per head had been around twice as high in Britain as in the most advanced parts of the continent of Europe, by 1914 the difference was only about a quarter.¹⁰³ Furthermore, in industrial capacity, Germany was well ahead of Britain in many respects. German steel output had overtaken Britain's in the 1890s. By 1910, Britain was producing 6.5m tons of steel per year, but Germany was producing 13m.¹⁰⁴ Just before the outbreak of World War I, Germany had twice as many kilometres of rail track as Britain and was generating six times as much electricity.¹⁰⁵ The high value of sterling compared to the currencies of the countries now competing with Britain ensured that a very substantial price was paid for this state of affairs in the form of slower growth.

Economic power was seeping away from Britain, and with it the capacity of the British to continue dominating the world as had been possible for the previous hundred years. Between 1870 and 1913, the population in Germany grew a third faster than it did in Britain,¹⁰⁶ further strengthening Germany's military position. Rivalry between the great powers increased, and world war, with all its disastrous consequences for the world economy, came closer.

The US Economy to World War I

When the first settlers arrived in North America from Europe, they brought with them immeasurable advantages over the indigenous population. The early colonists were, by all historical standards, exceptionally well endowed with their European legacy when they reached their destination, as indeed were many of those who subsequently followed in their steps. Nevertheless, the life of early settlers in the USA, and for many years subsequently, was tough and arduous. The country was enormous, and communications extremely primitive. Internal transportation was difficult and expensive, and sea-borne traffic often provided the only practical solution to the movement of goods and people, producing a strong incentive for the development of efficient sailing ships. The population was overwhelmingly rural. Even as late as 1790, when it totalled about 3.9m, of whom almost 700,000 were slaves, there were only seven towns with a population of over 5,000 and twelve with over 2,500. In these circumstances, manufacturing on anything but the smallest of scales was impractical, because internal transport problems so severely limited the size of the potential market. Almost all US export trade was in raw materials, primarily cotton, tobacco and wheat flour.¹⁰⁷

The Declaration of Independence in 1776, followed shortly afterwards by the Napoleonic Wars, in which the USA did not directly participate, and then the 1812 war with Britain, produced both opportunities and disadvantages. Trade was disrupted, but domestic manufacturing was encouraged, and exports grew dramatically, if erratically. Overall, the value of exports, which had been \$20m in 1790, had grown to \$52m by 1815, while imports rose from \$24m to \$85m.¹⁰⁸ Part of the growth in output in the USA was attributable to its rapidly rising population, which had reached 7.2m by 1810 and 9.6m by 1820. The really explosive growth in the number of people living in the USA did not start, however, until about 1830, when the population was almost 13m. By 1860 it was 31m. The peak for immigration during this period was 1854, when 428,000 people moved to the USA.¹⁰⁹

As early as 1820, the USA was among the richest countries in

the world, judged by GDP per capita. Estimates show the USA a little over 25% below the British living standard of the time, a little under 20% behind the Dutch and Australians, and about on a par with Austria, Belgium, Denmark, France and Sweden. By 1850, Britain was still well ahead of the USA, but the gap was closing.¹¹⁰ The disruption of the American Civil War held back the USA for a few years but, by 1870, the US growth rate was poised for the rapid increase in output achieved over the period between 1870 and 1913. During the fifty years between 1820 and 1870, the US economy had grown much faster than those on the other side of the Atlantic. Between 1820 and 1850, it grew cumulatively by 4.2% per annum, although the increase in output per head was much lower at 1.3% per annum, close to the British figure for the period of 1.25%. This was now to change. During the forty-three years from 1870 to 1913, the US economy achieved a cumulative growth rate of 4.3% per annum. Allowing for compound population growth of 2.1% per annum, US GDP per head rose by 2.2% per annum.¹¹¹

A differential in growth rates, either in GDP or GDP per head of 1% or 2% per annum, has a huge cumulative effect over a period, such as the forty-three years between 1870 and 1913. If two economies start at the same size at the beginning of a period this long, one which is growing 2% faster per annum than its rival will be 134% larger forty-three years later. Even if the differential is only 1%, it will be 53% bigger at the end of the period. The results of the differential growth rates which occurred between the USA and most of Europe in the late nineteenth and early twentieth centuries – reflected, of course, in what is happening now between West and East – thus presaged another seismic shift in world power. By 1913, the USA had overtaken Britain in living standards, leaving all the rest of Europe well behind. Only Australia and New Zealand were still ahead, but with much smaller populations and GDPs. By this time, the USA not only had a high GDP per head, but also a large population to go with it. By 1890 the US population was 63m, and by 1913 it was 98m.¹¹² As a result, the US economy was by then nearly three times the size of its nearest rivals, Britain and Germany, and nearly four times that of the French economy. Japan, which had grown by a respectable 2.8% per annum during

the previous three decades, had GDP only about 14% the size of that of the USA in 1913.¹¹³

During the latter years of the nineteenth century and the early 1900s, gross domestic investment as a proportion of GDP was much higher in the USA than it was in other countries. It averaged nearly 20% of GDP for the whole period, compared with about 12% for Britain and 15% for France.¹¹⁴ Achieving a high investment ratio was as important in the nineteenth century as it is now. All these factors helped, but the key figures then, as now, were not so much expansion of the total economy but output per head. As the figures above show, large increases in the population meant that American living standards grew much more slowly than the American economy as a whole during the decades running up to World War I. It is noteworthy that Sweden and Denmark increased their GDP per head faster than the USA over this period.¹¹⁵

The overall growth achieved by the USA in the nineteenth century was nevertheless unprecedented. By 1900 the American economy was about twenty-five times larger than it had been in 1820. By 1980, another eighty years later, by comparison, the increase was to a little over thirteen times the 1900 figure.¹¹⁶ The key period for expansion of the US economy, however, started during the decade before the Civil War when mechanisation and industrialisation really got into their strides. Between 1830 and the beginning of the 1860s, manufacturing output increased nearly tenfold, while the population rose to about three times its 1830 figure. In the final decade before the Civil War began, steam engines and machinery output increased by 66%, cotton textiles by 77%, railroad production by 100%, and hosiery goods by 608%. As Reconstruction got under way, and the opportunities for a wide range of new technologies were exploited, improving communications and the quality of manufactures, the economy took off. The US gross stock of machinery and equipment increased by almost 400% between 1870 and 1890, and by 1913 it had nearly trebled again.¹¹⁷

It is no coincidence that it was the advent of large-scale increases in industrial output which triggered the rise in the US growth rate. The proportion of US GDP deriving from industry was on a strong

upward trend throughout the nineteenth century. It employed 15% of the labour force in 1820, 24% in 1870, and 30% by 1913.¹¹⁸ The USA also used its investment more efficiently than the average, especially towards the end of the nineteenth and beginning of the twentieth centuries, thereby gaining an important additional advantage.¹¹⁹ This is a characteristic which the US economy still maintains, although the proportion of the US economy's output derived from manufacturing is now much lower than it was, down to 11.6% in 2018¹²⁰ from the 27% average achieved during the immediate post-World War II period.¹²¹

It is often alleged that a stable financial environment is the key to economic growth, and that low interest rates and low inflation are required to ensure high levels of investment and increases in output. It is hard to square this view of the world with the experience of the US economy in the nineteenth century. For most of this period, the USA had no central bank at all. The charter of the first Bank of the United States expired in 1811, when it was not renewed by the Jeffersonians then in power. The Second Bank of the United States, established in 1816, was wound up shortly after the re-election in 1832 of President Andrew Jackson (1767-1845), who bitterly opposed its existence.¹²² Thereafter, until the establishment of the Federal Reserve system in 1913, there was no central control of the US money supply. Credit creation was in the hands of thousands of banks, spread all over the country, many of them poorly run, undercapitalised, prone to speculation, and liable to fail.

It is hardly surprising that, in these circumstances, US interest rates, prices and credit availability gyrated from boom to bust repeatedly during the nineteenth century. The abolition of the Second Bank of the United States in 1833 was followed only four years later by the most serious depression the USA had experienced so far, in some ways a worse crash than in 1929. Prices fell 40% between 1838 and 1843, railroad construction declined by almost 70% and canal building by 90%. Large scale unemployment developed, and serious food riots broke out in New York City. It was not until 1844 that the next upswing started, culminating in the downturn in 1856, which lasted until 1862. This pattern was to be repeated throughout the nineteenth century, accompanied

every time there was a fall in economic activity by bank closures, bankruptcies and widespread defaults.¹²³

Nor was the price level at all stable in the USA during the nineteenth century. Between 1815 and 1850, the wholesale price level fell by 50%, with substantial fluctuations in intervening years. It rose by 50% during the 1860s, peaking in 1866 as a result of the Civil War, with the impact of the Californian gold rush on the money supply causing much of the underlying inflation. Between 1848 and 1858, California produced \$550m worth of gold – 45% of world output between 1851 and 1855.¹²⁴ After 1870 prices fell until, by the turn of the century they were 40% lower than they had been in 1870. They then climbed again by about 25% during the years to 1913, mainly because the development of the cyanide process for extracting gold in South Africa led to another major increase in the world's monetary base, inflating the money supply and allowing prices to rise.¹²⁵

Since World War II, promoting freer trade has been a major plank of US policy, also in sharp contrast to the high tariff protection promoted by successive administrations during the nineteenth century. Some import duties were imposed partly for revenue raising purposes, as they were the major source of government income at the time, but industrial protection was also a factor from the beginning. The tariff of 1816 imposed duties of 20% to 25% on manufactured goods and 15% to 20% on raw materials.¹²⁶ Thereafter the tariff level fluctuated, with the trade cycle, as always, playing a major role. The depression of 1837, for example, stimulated a new wave of protectionism as American industrialists blamed high unemployment on cheap imported goods. The major shift to a much more protectionist policy came in 1861 with the Morrill Tariff, designed to make the importation of most mass-produced goods into the USA completely uneconomic. Import duties were not lowered again until 1913, under Woodrow Wilson (1856-1924), although even then they still stood at about 25%. Wool, sugar, iron and steel, however, were added to the free list.¹²⁷

A distinguishing feature of the US economy has always been the low proportion, by international standards, of US GDP involved in foreign trade. Exports averaged about 11.5% of GDP during the

period running up to World War I – compared to 13.0% now.¹²⁸ Imports ran then at under 8%,¹²⁹ compared with 15% at present.¹³⁰ Part of the reason for these relatively low ratios has always, of course, been the sheer size of the country, and its ability to supply a high proportion of its needs from domestic sources. There is little doubt, however, that in the circumstances of the years up to 1913, the high tariff barrier helped the USA develop its manufacturing industries, unhampered by competition from abroad. Goods which might have been purchased from Europe were produced in the USA. The high level of demand, albeit subject to severe fluctuations, which the unregulated credit and banking system generated, provided opportunities which US manufacturers were quick to seize. Under the Gold Standard regime, which the USA joined in 1879,¹³¹ when bimetallism was abandoned, it would have been difficult for the USA to have lowered its prices internationally and sufficiently enough to have held off growing import penetration. The competitiveness of European exports at the time is amply demonstrated by the high proportion of their output which the European economies were capable of selling overseas during the nineteenth and early twentieth century. In 1900, about 25% of all British GDP was exported, and about 16% of all of Germany's. Even in 1913, Britain was still exporting twice the value of goods and services supplied by the USA, although its economy was more than 60% smaller.¹³²

The lessons to be learnt from the USA's economic history up to 1913 are just as relevant now as they were then. If the economy is to grow fast, advantage needs to be taken of the ability of industry, and particularly manufacturing, to generate high rates of growth of output. By 1870, a quarter of the US GDP came from industry, and by 1913, almost 30%.¹³³ The increase in productivity in manufacturing and agriculture during this period was about 50% higher than it was in the service sector – a ratio which has widened since then.¹³⁴ As the proportion of the US economy devoted to manufacturing rose, so did growth increase in the place where it really counts, which is not the size of the national income, but in output per head of the population, determining, as it does, the standard of living.

Lessons from the Gold Standard era

Between 1820 and 1913, economic output is estimated to have risen in the fifty-six major economies of the world by just over 300%, or cumulatively by 1.5% per annum. The rise in output per head was 140%, or a little under 1% per year.¹³⁵ These were much greater increases than had ever been seen on a wide scale in world history, demonstrating conclusively the immense power of the Industrial Revolution to change the prospects for humanity.

Could these ratios have been larger? Could the techniques used to garner the increased output obtainable from industrialisation have been spread significantly more widely, more intensively, and more quickly than they were? In theory, no doubt they could have been, although there were many practical obstacles in the way of this happening. In the first place, it took even the most perspicacious observers, such as Adam Smith, some time to realise what a momentous change in production methods was taking place. Second, the diffusion of knowledge about the Industrial Revolution did in fact spread quite rapidly, partly because of the popularity and success of *The Wealth of Nations*. Jean-Baptiste Say published his own major work *Traite d'Economie Politique*, refining and extending Smith's work, in France in 1803.¹³⁶ Translations into languages other than French increased its influence. There was also a stream of visitors from both home and abroad to British factories, supplemented by the publication of learned and practical journals, and exchanges of personnel and opinions in the relatively liberal world of the time.

The major practical constraints on spreading the use of the new industrial processes, which were then mostly being discovered in Britain, were those which had impeded the Industrial Revolution starting in other countries in the first place. Widely prevailing disparaging attitudes to industry, the disruption caused by wars, particularly the Napoleonic Wars which lasted for nearly a quarter of a century, the lack of stable government and enforceable contract law in many countries, and inadequate capital and credit facilities were major obstacles. Inevitably, also, there was a lengthy catch-up process which had to take place, even when copying of British techniques on

a substantial scale began to happen. It took time to formulate plans, to arrange finance, to find and train suitable staff and to make the necessary physical investments even when the will to do so had been established. Nor can an industrial base be created overnight. A process of accumulation has to take place, often with the ability to move ahead depending on previous steps being accomplished successfully. Expansion from a small or almost non-existent base, which cannot be achieved even in the most favoured circumstances at more than a manageable pace, necessarily constrains the size of the total output achievable for a long way ahead.

The more challenging question about the nineteenth century, and indeed the one to follow, was whether, despite all the delays inevitably surrounding the adoption of new ways of organising production, different institutional developments and economic policies might have speeded the process of diffusion and development, particularly since many of the basic constraints inhibiting progress had already been overcome. Could countries such as Britain, which slowed down, have maintained momentum and grown faster? If different economic policies, particularly those concerned with macro-economics, had been adopted, would it have made a major difference?

The history of economic progress set out so far provides a framework for answering this question. It certainly suggests that a number of significant and clearly identifiable policy mistakes were made in Britain. The re-establishment of the pre-Napoleonic Wars parity between sterling and gold in the period following 1815 not only severely depressed output for five or six years, but also, much more seriously, locked Britain into having a relatively high cost base compared to that potentially available in other countries when they started to industrialise. As long as Britain had world markets substantially to itself this was not of crucial significance, but once foreign competition got into its stride, British vulnerability became all too evident. The adoption of free trade then made a bad situation worse, by effectively revaluing sterling still further as Britain lowered tariffs while competitors raised them. Cheaper food and raw material import costs, though they helped, were not sufficient to offset the UK's increasing lack of competitiveness.

While other countries were able to expand their economies largely unconstrained by foreign competition or balance of payments problems, Britain was unable to do so. The British economy, lacking the stimulus from export-led growth, was therefore the major loser from inappropriate macro-economic policies in the nineteenth century. Why did Britain allow this to happen? Partly, it was because the reasons for Britain's relative decline were not understood, so there was no clearly articulated policy available for reversing it. Economic policy followed the classical precepts laid down by leading thinkers such as John Stuart Mill. Building on the work of their predecessors in the same tradition, the emphasis was heavily orientated to a minimalist role for the state with low taxation and public expenditure, financial stability – in so far as it could be secured by clearly defined central bank operations, free trade, and the maintenance of the Gold Standard as the underlying stabiliser.

This mixture of policies, which left little scope for the state to influence and promote the growth of GDP, well suited the growing strength and preponderance of the financial interests in Britain, exemplified pre-eminently by the City of London. In these circumstances there was no place for a determined and well formulated series of policies to keep the British economy on a high growth track, although there was mounting concern about the extent to which Britain was falling behind its competitors. *The Final Report of the Royal Commission on Depression of Trade and Industry*, published in 1887, is full of agonised concern about the state of the economy.¹³⁷

In the end, however, there was little serious challenge to the conventional views of the time, and the result was that those with accumulated wealth dominated the way the economy was run, as against those striving to create new industries. Classical nineteenth century economic precepts heavily favoured finance rather than industry. Sterling was too strong, encouraging imports and discouraging domestic production. Too much investment went abroad. Too few talented people went into industry and commerce. Too many went into the professions, administering the empire acquired almost entirely as a result of Britain's earlier economic

pre-eminence, and into academic life, the civil service, the church – anything, if they could avoid it, except industry and trade.

If an effective challenge to the policy status quo was to come from anywhere, it would have had to come from the intellectual world, but it was not to be. The mainstream thinkers and writers, at least up to the advent of the great inter-war depression, almost invariably, amplified and endorsed the classical economic approach, building on a tradition with a heavy emphasis on markets being self-regulating, and the role of the state being as non-intrusive as possible. Economics – or political economy as it was then called – was, as we have seen, primarily concerned with microeconomics. It was the formation of prices and marginal utility which generated interest rather than how to get the economy to grow faster. It was not until the 1930s and 1940s that macroeconomics moved to centre stage, and then largely to tackle unemployment rather than economic growth. Britain, and the world in general, paid a heavy price for these trends in intellectual fashion.

4.

1914-1945 and John Maynard Keynes

World War I began as the result of a network of treaty obligations being called into play following the assassination of Archduke Franz Ferdinand (1863-1914) in Sarajevo on 28th June 1914.¹³⁸ Although few had anticipated the outbreak of war, its advent was greeted with a surprising amount of enthusiasm. Huge crowds turned out in Berlin, Paris, Petrograd (St Petersburg), London and Vienna, clamouring for military action.¹³⁹ By 1945, all such enthusiasm for war had been spent. Two ruinous conflicts had cost millions of lives, had caused untold damage, and had drastically set back living standards – although there was to be a remarkably rapid recovery after World War II. In the meantime, however, not only had immense human and physical damage been done during the periods of open warfare, but also the network of international trading and financial arrangements which had allowed the world economy to function reasonably smoothly during the nineteenth century, and the early years of the twentieth, was catastrophically disrupted by the impact of World War I. The result was a period of great instability and lost opportunities between the wars, as fragile booms in the 1920s collapsed into the worldwide slump of the early 1930s. Thereafter there were sharp divergences as some economies continued to decline while others made remarkable recoveries.

Throughout the period, the record of most of those responsible for economic policy was confused and inadequate. The near universal consensus among political and intellectual leaders up to the outbreak of World War I was that the state should see its role as holding the ring rather than being a major player. Clearly, however, this stance made no sense at all at a time of total war. Within a very short time, therefore, in all the belligerent economies, the proportion of output

which went through the government's hands rose dramatically. In Britain it increased from 15% in 1913 to an astonishing 69% in 1917,¹⁴⁰ while similar rises were seen in France and Germany. In the USA, the peak, at 36% in 1918, was considerably lower, but even so it represented a dramatic change from pre-war days.¹⁴¹ The outcome was that governments in all the countries involved in fighting the war were presented with problems for which they were in some key ways singularly ill-prepared to tackle. While mobilising to produce vast quantities of guns, ships, aircraft and munitions, and recruiting large numbers of people to fight, was found to be problematic but achievable, securing these objectives without over-stretching and destabilising the economy proved much more difficult. Even in the relatively under-stretched USA, prices rose by about 100% between 1914 and 1919,¹⁴² but inflation was much less there during the war period than it was in other countries. Over the same period, Britain's price level roughly trebled¹⁴³ and France's almost quadrupled,¹⁴⁴ as did Germany's.¹⁴⁵

More than anything else, it was the disruption to the rough balance of competitiveness between the pre-World War I economies which turned out to be the bane of the inter-war period – compounded by the impact of the insistence by the victorious powers of payments of reparations by Germany, the major belligerent on the losing side. World total demand was depressed by the policies pursued by countries such as Britain, which was determined to restore sterling's pre-war gold parity, and willing to go through a period of severe deflation to do so. In Germany, until the advent of the Nazi regime, with very different ideas about how the economy should be run, a similarly cautious attempt was made to follow classical economic remedies, culminating in the cuts to unemployment benefit which, as much as anything else, led to Adolf Hitler (1889-1945) becoming Chancellor in 1933. In the United States during the 1920s, the economy was unconstrained by balance of payments problems and the apparent need for deflation which afflicted most of Europe. The result was a major boom, culminating in a bout of speculation on an unprecedented scale which left the banking and financial system heavily exposed to a downturn. When this came, the authorities were completely unprepared to deal with it. As

elsewhere, vain attempts to balance a rapidly deteriorating fiscal position simply made an already catastrophic situation worse.

While the world's economies were languishing, work was being done by John Maynard Keynes and others which would lead, at least for a while, to much more stable conditions after World War II. The influence of those who realised that Say's Law was not correct, and that it was possible for economies to suffer from insufficient total demand for years on end, however, was only marginal between the wars. Their thinking had some impact in Britain, Sweden and the USA, particularly on some of those involved in the New Deal, but only to a limited degree. Keynes' major influence on policy was to come later, as the institutions for the post-World War II period were established, although he also had a substantial impact on the way in which World War II was financed in Britain.

By the end of World War II, therefore, much had been learnt about how to control and finance total mobilisation, and inflation in all the main belligerent countries was much less than it had been during World War I at least during the early wartime years. Prices nevertheless rose steeply in those countries which were defeated and occupied during the war, and in those which were eventually on the losing side as the war ended. At the same time, a number of major advances had also been made in thinking about how to structure the post-war financial system, laying the foundation for the great advances in living standards achieved in much of the world during the 1950s and 1960s. The period from the 1970s onwards, however, as world growth rates declined sharply, showed that still more needed to be done to develop policies which would combine reasonable rates of economic growth with other economic objectives, particularly fairly low rates of inflation.

The period from 1914 to 1945 is therefore an exceptionally interesting and important one, both in terms of the impact it had on economic and political history and in the development of ideas. Much was lost in terms of damage, foreshortened lives, unemployment, output foregone and in the production of destructive military equipment, but important ground was gained in better understanding some of the key requirements for improved economic management.

Europe's disastrous years

Turning back to 1914, World War I was a catastrophe for Europe in every way. There was huge loss of life and immense material destruction. Even worse than this, the relatively stable and secure social and economic systems which had been developed during the nineteenth century, which had stood Europe and the world as a whole in good stead, were disrupted, dislocated and dismembered. It took the passage of three decades and another world war before anything resembling the peace, prosperity and security of pre-World War I Europe would be re-established.

Approximately 10m people lost their lives in Europe prematurely as a result of World War I,¹⁴⁶ and a substantial additional number, harder to quantify although it may have been as high as 50m,¹⁴⁷ in the influenza epidemics – Spanish flu – which struck down a weakened population at the end of the war. The damage done to towns and factories, although much less than in World War II, was still considerable. The national incomes of the countries of western Europe fell precipitously between the period just before World War I started and the early years after it ended, when the demand for war-orientated production fell away. France's industrial production dropped by over 40% between 1913 and 1919, caused partly by the disruption and damage caused by the war, and partly by the post-war slump.¹⁴⁸ It was 1927 before German GDP rose again to its 1913 level.¹⁴⁹ Britain did not do so badly, with the GDP staying more or less constant during the war, although it fell heavily, by about 20%, immediately the war finished.¹⁵⁰

Economic instability in Europe was greatly compounded by the Treaty of Versailles, negotiated between the powers which had won the war and the humiliated Germans. The Americans had not come into the war until 1917, and insisted on the large debts run up by Britain and France for war supplies being paid. Britain and France, in turn, looked to Germany to make huge reparations, partly to pay the Americans and partly on their own account. None of these arrangements, negotiated by political leaders under immense pressure from electorates much more interested in settling old scores than in facing up to new realities, bore any relationship to

the ability of the Germans to make these payments. Leaving aside the extent to which the German economy was already languishing as a result of the damage done to it by the war, the only feasible way for the Germans to pay the reparation bill was to run a very large export surplus. In the fragile state of the world economy in the 1920s, no country was prepared to tolerate a large German trade surplus, even if it could have been achieved. Genuine payment of reparations on the scale demanded, whatever its electoral appeal, or the requirements of the USA to see debts to it settled, was never, therefore, a remotely realistic prospect.

Attempts to extract reparations, however, compounded with post-war political and economic disruption, caused havoc in Germany. The government was unable to produce sufficient revenue through the tax system to meet the obligations it had undertaken to fulfil. It therefore resorted to the printing press to create the money it was unable to raise in any other way. The result was the German inflation of 1923, which ended in hyper-inflation and the total collapse in the value of the currency.¹⁵¹ The Reichsmark had already lost three quarters of its value during World War I.¹⁵² Now all those with savings in cash lost everything. This experience understandably scarred the German attitude to inflation and monetary rectitude, with reverberations which are still felt today.

Gradually, however, towards the end of the 1920s, some measure of normality began to reassert itself. There was a significant recovery in France, where industrial output doubled between the post-war low of 1921 and 1928, although even in 1928 it was only 10% higher than it had been in 1913.¹⁵³ Industrial production also rose in the late 1920s in Germany, peaking in 1929 at about 20% higher than it had been in 1913, while Germany's GDP grew cumulatively between 1925 and 1929 by a respectable 2.9% per annum.¹⁵⁴ In Germany's case in particular, however, the recovery was fragile. It depended heavily on large loans flowing in from abroad, especially from the United States, to enable reparation payment to continue at the scaled-down rate agreed by the Young Plan in 1929, replacing the much harsher 1924 Dawes Plan.¹⁵⁵ Nevertheless, in the late 1920s, Germany's unemployment was falling and living standards were slowly increasing.

Britain remained depressed, mainly because of a repetition of the same process which had taken place after the Napoleonic Wars. The link between the pound and gold had been suspended on the outbreak of World War I, and the pressure on the economy during the war had led to considerable price inflation, and significantly more than in the USA. Nevertheless, on the recommendation of the Cunliffe Committee, in 1918 it was decided to restore the gold value of the pound to the same parity against the US dollar – \$4.86 – as it had enjoyed in 1914. Attaining this objective meant forcing down costs in Britain, which were then attempted by imposing severely deflationary policies. The reductions achieved, particularly in labour costs, were nothing like sufficient, however, to restore Britain to a competitive position at the target parity. As a result, Britain spent the whole of the 1920s in an all too wearisomely familiar position, suffering from a combination of lack of competitiveness at home and abroad, leading inevitably to domestic deflation and slow growth in output and living standards.

Europe therefore appeared to be very poorly placed to weather the depression which followed, beginning with the collapse of the US stock market in 1929. The most immediate effect of the American slump on Europe was that the flow of loans from the USA to Germany dried up, plunging the German economy into a crisis of the same order of magnitude as had overcome the United States. Between 1929 and 1932, German GDP fell by almost a quarter. Industrial production dropped by nearly 40%.¹⁵⁶ Unemployment, which already stood at 9.3% in 1929, increased to over 30% of the labour force by 1932.¹⁵⁷ During this year it averaged 5.5m, peaking at 6m. In Britain, GDP fell, but by not so much as in the USA and Germany. Industrial production dropped by 5%, but unemployment, which was already 7.3% in 1929, rose to 15.6% in 1932.¹⁵⁸ Similar patterns to those seen in Britain were to be found in France and the Benelux countries. Mussolini's policy in Italy of keeping the lira at as high a parity as possible, mirroring British ambitions, ensured that the Italian economy suffered similar disadvantages, although the proportion of Italian GDP involved in foreign trade was much lower than in Britain.

The crucially important lessons to be learnt from the 1930s

derive from the different ways in which the major economies in Europe, particularly Germany, France and Britain, reacted to the slump which overtook all of them at the same time. In Germany, the collapse of the economy, coming as it did on top of the trauma of the lost World War I, the vindictiveness of the Versailles settlement, particularly the reparations clauses, the political instability of the Weimar regime, and the hyperinflation of 1923, provoked a wholly counter-productive response from the Brüning government. In July 1931, and again in the summer of 1932, the amount and duration of unemployment compensation was reduced. Instead of attempting to reflate the economy, Chancellor Heinrich Brüning (1885-1970), supported by the SDP opposition, cut wages and benefits. This made the economic situation worse, precipitating the German banking crisis of July 1931, which followed the Austrian Kreditanstalt collapse two months earlier.¹⁵⁹ The desperate attempts by democratic, well-meaning politicians to maintain financial respectability – putting the interest of finance above those of working people – were their undoing, and that of the whole of Europe as the Nazis came to power. This mistake, on top of all the others, provided Hitler and his associates with their opportunity to take over the government of Germany in 1933.

The economic policies pursued by the new Nazi regime, however disastrous in leading Europe into World War II, and however much racist and fascist policies are to be deplored, were nevertheless remarkably successful in economic terms. Unemployment, which stood at over 30% in 1932, was reduced by 1938 to just over 2% of the working population.¹⁶⁰ Over the same period, industrial production rose over 120%, a cumulative increase of 14% per annum. The Gross National Product increased by 65%, a cumulative rise of nearly 9% a year.¹⁶¹ A substantial proportion of the increased output was devoted to armaments, but by no means all. Military expenditure, which had been 3.2% of GDP in 1933, rose to 9.6% in 1937. It then almost doubled to 18.1%, but only as late as 1938.¹⁶² Between 1932 and 1938, consumers' expenditure rose by almost a quarter.¹⁶³ Nor were these achievements bought at the expense of high levels of inflation. The price level was very stable in Germany in the 1930s.

Consumer prices rose by a total of only 7% between the arrival of the Nazi regime in 1933 and the outbreak of war in 1939.¹⁶⁴

How were these results achieved? Some of the outcomes could only have been accomplished by a non-democratic regime with access to total power. In particular, the pressure exerted to hold down wage increases, and the policies imposed to restrict trade, so as to increase Germany's capacity to supply all its essential needs internally, would have been difficult for any democratic government to implement. Unquestionably, these policies also led to increasing distortions in the economy, with a price which would to be paid sooner or later. All the same, there was plenty of increased new output available with which to pay these costs.

The expansion of the economy was made possible partly as a result of vast increases in expenditures by the state, which nearly trebled between 1933 and 1938.¹⁶⁵ An increasingly high proportion of these were spent on rearmament as the decade wore on, but during the earlier years most of it went on civil expenditure, such as building a road system far superior to anything seen before, although this clearly also had significant military potential. A substantial proportion of the rest of the rise in output, however, went on increasing the German standard of living. Much of the initial expenditure was financed by borrowing on a large scale, some of it through bonds, but much of it from the banking system. There was a large expansion in the money supply. Rising tax revenues, flowing from the greatly increased scale of economic activity and falling welfare costs, however, kept the finances of the regime relatively easily in bounds, which was partly why inflationary pressures were subdued.¹⁶⁶

In Britain, the initial reaction to the advent of the slump was much in line with the economic policies previously pursued. The Labour Chancellor of the Exchequer, Philip Snowden (1864-1937), tried to persuade his reluctant cabinet colleagues that the only solution to the financial crisis overwhelming the country was to maintain a balanced budget by implementing the same sorts of cuts in expenditure which had been the undoing of the Brüning government in Germany. Eventually, there was a revolt when the overwhelming majority of Labour Members of Parliament ceased

supporting the government, refusing to back any more cuts. They preferred to go into opposition, allowing a National Government to be formed with the support of the Conservative opposition.

The policies then implemented were a complete break from those previously in play. Sterling was allowed to be driven off its gold parity and to fall in value by 24% against all other major currencies and by 31% against the dollar.¹⁶⁷ Far from the government then making efforts to restore the previous parity, as it had after the Napoleonic Wars and World War I, presaging the same mistaken response time after time to exchange rate falls in the future, policy was dedicated to ensuring that the new lower parity was retained. An Exchange Equalisation Account was established, with resources of 5% of the Gross National Product, to keep the pound at its new competitive level. There was a very substantial expansion in the money supply, which increased by 15% between 1931 and 1932, before rising a further 19% during the first half of 1933.¹⁶⁸ Interest rates fell to almost zero. In 1933, three-month Treasury bonds paid an average interest rate of just under 0.6%.¹⁶⁹ Protection, including a 15% tariff on manufactured goods,¹⁷⁰ was added to reinforce the protective effects of the reduction in the exchange rate, adding significantly to the effective size of the devaluation. A recent study showed that the result was the creation of some 80,000 jobs in Lancashire alone.¹⁷¹

In Britain, as in Germany, the results were dramatic and positive. Far from living standards falling, as almost all commentators had confidently predicted would happen, they started to rise rapidly. Industrial production also increased substantially, if not as fast as in Germany. In the five years to 1937, manufacturing output rose by 48% to 38% above the 1929 peak.¹⁷² Unemployment fell sharply as the number of people in work quickly increased. Over the period between 1931 and 1937, the number of those in work rose from 18.7m to 21.4m as 2.7m new jobs were created, half of them in manufacturing.¹⁷³ Unemployment fell from 3.3m to 1.8m. The poor business prospects in the previous decade had left Britain bereft of much investment in the most modern technologies. Now the ground was quickly made up, with new industrial capacity employing the latest technical developments, as was also happening in Germany.

Nor was inflation a problem. Contrary to all conventional wisdom, the price level fell heavily, partly reflecting the slump in world prices, until 1933 after which it began a slow rise.¹⁷⁴ The British economy grew faster during the five years between 1932 and 1937 – at a cumulative rate of 4.6% per annum¹⁷⁵ – than for any other five-year period in its peace-time history, showing clearly how effective a radical expansionist policy could be, against what appeared to be the most unpromising background.

Towards the end of the 1930s, the growth in the British economy began to slacken off, despite increased expenditure on armaments, which was a delayed response to the increasing threat from Germany. The reason was largely a further round of exchange rate changes. The Americans had devalued the dollar by 41% in 1934. In 1936, they were followed by the Gold Bloc countries, France, Switzerland, Belgium and the Netherlands, which had hitherto been in the doldrums with low growth and high levels of unemployment as a result of their over-valued currencies.¹⁷⁶ Incredibly, in the light of the experience of the previous few years, instead of devaluing with them to keep sterling competitive, the British agreed to support the new currency alignments with the Exchange Equalisation Account. The competitiveness which had enabled the British economy to recover so quickly from the slump was thereby thrown away. In 1948, the Economic Commission for Europe estimated that sterling was an overvalued in 1938 as it had been in 1929.¹⁷⁷ This did not, however, stop there being another very large increase in UK output as World War II got under way. UK GDP was 27% higher in 1942 than it had been in 1937 as traditional caution was thrown to the winds, showing what can be done when the will is there.¹⁷⁸

The French experience during the 1930s was the mirror image of that of Britain. Until 1936, when, under the Popular Front government headed by Leon Blum (1872-1950), deflationary policies were at last abated, France, along with the other Gold Bloc countries, stayed on the Gold Exchange Standard. French refusal to devalue depressed the economy further and further, producing the inevitable consequences. French GDP dropped steadily in real terms almost every year from 1930 to 1936, falling a total of

17% over these six years. Industrial production fell by a quarter. Investment slumped. Unemployment rose continually.¹⁷⁹

A few telling statistics summarise what happened. French crude steel production fell from 9.7m tons in 1929 to 6.1m tons in 1938. In Germany, over the same period, it rose from 16.2m to 22.7m tons. France produced 254,000 cars and commercial vehicles in 1929 and 227,000 in 1938. In Germany, output went from 128,000 to 338,000. British crude steel production rose from 9.8m tons in 1929 to 10.6m in 1938, while vehicle output went up from 239,000 to 445,000.¹⁸⁰ These figures show with crystal clarity how much the French economy weakened compared to that of Britain and particularly Germany over this critical period. Although other factors were of course involved, the results of the battles of 1940, during the early part of World War II, were, to a very significant extent, determined by whether or not the combatant countries had adopted policies during the previous decade which provided them with the industrial capacity to manufacture the aircraft, guns, tanks and other armaments they so urgently needed once the fighting started.

The contrast between the three largest economies in Europe in the 1930s could hardly have been more marked – between the relatively successful results, at least in economic terms, achieved by Germany and Britain, and the disastrously poor outcome in France and the other Gold Bloc countries. These lessons are highly material today. The really interesting exemplar is the British experience, at least until 1936, combining democracy with recovery. Thereafter, reverting to type, the huge advantage of a competitive exchange rate, rapid growth and falling unemployment enjoyed by Britain for the middle years of the 1930s was gratuitously thrown away. 1931 to 1937, however, showed what could be done in peacetime by a democracy faced with daunting economic problems when the right policies were chosen. Expanding the money supply, reducing interest rates and establishing the exchange rate at a competitive level were the keys to success. Creating conditions where exports could boom, the home market could be recaptured from foreign suppliers, and where industry could flourish, all had an enormously positive impact on the country's economic performance.

Boom and slump in the USA

It was not until 1917, three years after World War I broke out, that the USA became directly involved in the war as a belligerent. By 1918 the US economy had grown by almost 16% compared to 1913.¹⁸¹ While the 1920s saw most European economies recovering from deep post-war slumps, leaving their populations with significantly lower GDP per head than they had enjoyed before the war, the US economy soon began to surge ahead. Recovering quickly from a brief post-war set back in 1919–21, during most of the remaining 1920s a major and sustained boom developed. Between 1921 and 1929, the US economy grew by 45%, achieving a cumulative 4.8% rate of growth per annum during these eight years.¹⁸²

From 1920 to 1929, industrial output climbed by nearly 50%, while the number of people employed to achieve this increase in output hardly altered. This reflected an enormous increase in manufacturing productivity, which rose cumulatively by nearly 5% per annum as factories were automated.¹⁸³ The use of electricity in industry rose dramatically by 70% between 1923 and 1929.¹⁸⁴ Living standards increased by 30%, although those on already high incomes gained much more than those further down the income distribution. Investment as a percentage of GDP rose from 12.2% in 1921 to 17.6% in 1928. Meanwhile, the price level remained remarkably stable, consumer prices being on average slightly lower in 1928 than they were in 1921.¹⁸⁵

The confidence engendered by such economic success was reflected not only in an almost tripling of consumer credit during the 1920s, but also on the stock market. A bull market began to build in 1924. It surged ahead with only minor setbacks for the next five years. The Dow Jones Industrial Average, whose high point was 120 in 1924, reached 167 in 1926, soared to 300 in 1928, and peaked at 381 on 3rd September 1929, a level not to be exceeded for another quarter of a century. Speculative fever reigned in a largely unregulated market. Much of the increase in the value of stocks was financed by increasingly risky but lucrative loans. As the boom gathered strength, those buying shares often had to put up only as little as 10% of the cost themselves, the balance being provided as

'brokers' loans'. Initially, these were provided by banks, but later increasingly by corporations, which found the potential returns irresistible, resulting in many of the major American companies investing more and more of their resources in speculation rather than productive plant and equipment. Brokers' loans, which had totalled about \$1bn during the early years of the decade, had risen to \$3.5bn by the end of 1927, \$6bn by January 1929 and reached \$8.5bn by October 1929. The huge demand for such loans forced the interest rate on them up and up. By the time the stock market peaked in the early autumn of 1929, 12% interest rates were not uncommon at a time when there was no inflation.¹⁸⁶

The initial falls from the stock market peak were modest but, by late October 1929, confidence was draining away. A wave of panic on 24th October was followed by 'Black Friday' on 25th October, and a frenzy of selling on 29th October 1929. In the first half-hour that day, losses ran at over \$2bn and by the end of the day they were \$10bn, as the Dow-Jones fell 30 points, reducing the value of quoted stocks by 11.5%. Worse was to follow. Despite periodic rallies, the market moved inexorably downwards until, by July 1932, the Dow-Jones stood at 41, nearly 90% below its 381 peak. United States Steel shares fell from 262 to 22, General Motors dropped from 73 to 8, and Montgomery Ward plummeted from 138 to 4.¹⁸⁷

The collapse of prices on the stock exchanges had a devastating effect on the rest of the economy. The huge sums which had been lost caused a wave of bank failures from coast to coast, dragging down countless businesses with them. As both consumer and industrial confidence evaporated, sources of credit dried up, and demand disappeared for many of the goods and services which the US economy was amply capable of producing. Between 1929 and 1933, US GDP fell by 30%. Industrial output went down by nearly half in just three years from 1929 to 1932. By 1933, a quarter of the American labour force was out of work. Nearly 13m people had no job.¹⁸⁸

The condition of the economy reached its nadir in 1933. Meanwhile, in 1932, Franklin D. Roosevelt (1882–1945) had ousted the hapless Herbert Hoover (1874–1964) as president in a landslide vote, initiating a New Deal for the American people, designed

to tackle the slump. The policies implemented by the incoming Democrat administration fell into two main parts. The first was a substantial increase in the role of the state. More financial help was provided to those hardest hit by unemployment. The Federal Emergency Relief Act provided \$500m in direct grants to states and municipalities. New agencies were established, some of them designed to act in a counter-cyclical way, increasing demand by using the borrowing power of the state to provide funding. The Tennessee Valley Authority provided regional energy and flood control. The National Recovery Administration assisted with industrial revitalisation. The Agricultural Adjustment Administration had as its goal the regeneration of the weakened farming sector of the economy. The result of these initiatives was probably as much in terms of increasing confidence that something was being done by the federal government to improve conditions than in their direct impact, although expenditure on these schemes no doubt had some reflationary impact.¹⁸⁹

Much more significant in terms of causing the economy to revive were other steps taken on the macro-economic front. In 1934, the dollar was devalued by 41%, adding to the substantial protection for American industry which had already been achieved by the Smoot-Hawley Tariff in 1930, a major step towards the economic nationalism which was one of the curses of the 1930s. One of the Roosevelt administration's early steps had been to stabilise the financial system by declaring a bank holiday, and then allowing the Treasury, under emergency legislation, to verify the soundness of individual banks before allowing them to reopen. Ten days later, half of them, holding 90% of all deposits, were back in operation. The result was that, thenceforth, deposits exceeded withdrawals as confidence in the banking system was restored, thus increasing the availability of credit. The Fed also encouraged recovery by allowing the money supply to rise as the economy picked up. M1 rose from just under \$20bn in 1933 to a little less than \$30bn in 1936, generating a major increase in the underlying credit base.¹⁹⁰

The result was that, by 1936, the US economy was in considerably better shape than it had been three years earlier. In these three

years, real GDP grew by 32%, while unemployment fell by nearly a third, from 25% to 17%. Industrial output rebounded, growing 50%.¹⁹¹ Corporate net income moved from being \$2bn in deficit to \$5bn in surplus.¹⁹² There was little change in the consumer price level.¹⁹³ Despite these striking achievements, Roosevelt, who, notwithstanding all the New Deal rhetoric, had never felt wholly comfortable with borrowing to spend, became alarmed by the fiscal deficit, which reached \$3.5bn in 1936. As a result, he ordered a cutback in federal spending.¹⁹⁴ This coincided with both a reduction in the competitiveness of US exports as the Gold Bloc countries devalued, and the deflationary impact of the promised new social security tax, another part of the New Deal, which was introduced at the same time. The consequence was a sharp recession. GDP fell by 4% between 1937 and 1938, industrial output fell back nearly a third, and unemployment rose from 14.3% to 19%.¹⁹⁵

By then, however, the start of World War II was imminent, transforming the prospects for the US economy. Although the USA did not become a belligerent until December 1941, following the Japanese attack at Pearl Harbor on 7th December 1941,¹⁹⁶ the lend-lease arrangements agreed with the Allied powers at the start of the European War rapidly provided a massive stimulus to US output. Between 1939 and 1944, US GDP grew by an astonishing 75%, a compound rate of almost 12%. Over the same period, industrial output increased by over 150%, while the number of people employed in manufacturing rose from 10.3m to 17.3m, an increase of just under 70%. The difference between these two percentages reflected a huge further advance in manufacturing productivity, which rose cumulatively by some 7% per annum. Prices increased by an average of less than 5% a year, a far better outcome than had been achieved during World War I.¹⁹⁷ By the end of World War II, the USA was therefore in an extraordinarily strong position vis à vis the rest of the world. Most developed countries had suffered invasion and defeat at some stage in the war, and in consequence their economies had been severely disrupted, and in some cases devastated. Between 1939 and 1946, Japanese GDP fell by almost half, and Germany's by just over 50%. Even countries such as Britain, which had avoided invasion and had finished on the winning side,

did nothing like as well as the USA. The British economy grew by only 10% between 1939 and 1946.¹⁹⁸ No wonder that in 1945 the US economy looked supreme.

Keynes and demand management

The major contribution made by John Maynard Keynes to economic thought was his perception that demand and supply would not always be in balance at a level which kept the economy with more or less full employment, as Say's Law had claimed would be the case. On the contrary, Keynes maintained that while the money spent by the nation on consumption always creates an equivalent income flow for producers, there is no reason why the same should be true for that proportion of its income which the nation saves. The corresponding expenditure in this case is by companies and the state on investment. There is no reason why, *ex ante*, these should be the same. If there is more *ex ante* saving in the economy than expenditure on investment, there will be an overall shortfall in demand, which will lead to deflation and unemployment. Furthermore, if, as economic conditions become more depressed, precautionary savings rise, while investment falls as profitable opportunities decrease, the result may be an increasingly intense depression. As an accounting identity, investment and savings, or more strictly speaking investment and borrowing, have *ex post* to be identical in size.¹⁹⁹ It might well be the case, however, that equilibrium between them would be found at a level which left the economy as a whole heavily short of the total level of demand needed to keep everyone in employment, with a reasonable rate of growth being achieved.

The classical economist's response to the problem of unemployment had been to deny that it could exist, except in the case of workers changing jobs or being out of work because of poor fits between skills and job opportunities, unless wages were too high or too rigid. The solution, if unemployment appeared, was therefore to ensure that wages fell until everyone was priced back into a job. A further important contribution from Keynes was to point out that this was not a correct description of events,

but a fallacy of composition. What might be true of individual workers was not true of all the labour force taken together. If employers generally lowered wages at a time of unemployment, total purchasing power – aggregate effective demand – would diminish *pari passu* with the diminished wages, thus worsening the deflationary problem.²⁰⁰

Nor was it true, Keynes maintained, that lowering interest rates would necessarily improve the prospects for investment, to provide a sufficient stimulus to pull the economy out of a depression. Worse still, lowering interest rates might increase savings, thus further aggravating the imbalance, as savers felt they needed larger cash investments to offset the lower returns which they were likely to receive. The only solution was for the state to assume a much more active role, to make up for the deficiency in demand in the private sector. If the economy was operating at below full employment, the state should offset the excess saving in relation to investment by borrowing itself, and spending the money thus made available to increase overall demand.

Keynes also had strong views about the role of the exchange rate on the performance of the economy. He had railed against Winston Churchill (1874-1965) when, as the Chancellor of the Exchequer, he had, in 1925, returned Britain to the pre-World War I gold parity, realigning sterling with the US dollar at \$4.86 to the pound.²⁰¹ Speaking nearly twenty years later for the Coalition government in the Bretton Woods debate in the House of Lords on 23rd May 1944, the then Lord Keynes²⁰² said that:

‘We are determined that, in future, the external value of sterling shall conform to its internal value, as set by our domestic policies, and not the other way round. In other words, we abjure the instruments of Bank Rate and credit contraction operating to increase unemployment as a means of forcing our domestic economy into line with external factors.’²⁰³

Unfortunately, however, Keynes died in 1946, and British exchange rate policy soon regressed back to the norm – keeping sterling as strong as possible on the foreign exchanges, in line with the perennial conventional wisdom which still very largely prevails.

Not only did Keynes, nevertheless, have great influence on the way in which domestic policy operated in the post-World War II period, he was also heavily involved in negotiations with the USA, for whom Harry Dexter White (1892-1948) took the lead, in designing the architecture for the post-World War II international settlement. Planning started in 1942 and culminated in the Bretton Woods agreement of 1944. Common ground between the British and Americans was their jointly perceived need to avoid both competitive trade restrictions and floating exchange rates, both of which, as inter-war experience had shown, could be manipulated to secure unilateral advantage at heavy multilateral expense, if used in a 'beggar-thy-neighbour' fashion.²⁰⁴ Floating exchange rates were also believed to encourage inflation, by allowing politicians an easy escape from overheating their economies, to enhance their popularity. There was more difficulty in securing a consensus over the timing as to when liberalisation of trade – let alone capital movements – should take place. It was agreed that some barriers would be required to short-term capital movements, at least in the immediate post-war period, but the Americans were also keen that trade restrictions should be removed as quickly as possible. The problem was that, with trade barriers removed, the demand from Europe and elsewhere for US exports was far higher than their dollar earnings could meet. The 'dollar gap', which manifested itself for some years after the end of the war, showed that British caution was well justified.

Buttressed by the establishment of the IMF to deal with short-term international financing needs, and the World Bank to manage longer-term development loans, and, in 1946, by the General Agreement on Tariffs and Trade (GATT), the Bretton Woods system, as it finally emerged, had a number of key characteristics. The centrepiece was agreement that exchange rates in future should be fixed, with all participating countries having to establish a par value for their currencies in terms of either gold or the US dollar. These par values could only be changed to correct a 'fundamental disequilibrium' in their balance of payments. Each country was expected to hold reserves to support its fixed exchange rate, which could be supplemented by the Fund's resources. Agreement was

reached on procedures for the liberalisation of world trade by the removal of trade barriers and the progressive lowering of tariffs.²⁰⁵

The period of high growth and relative stability in the 1950s and 1960s which followed the setting up of the Bretton Woods system, once the initial dislocations of the immediate post-war period had been overcome, was unquestionably impressive, and a vast improvement on the record of most of the inter-war period. Between 1950 and 1970, the world economy grew by 157% compared to 97% between 1913 and 1950.²⁰⁶ Nevertheless, the arrangements agreed suffered from deficiencies, which were to become increasingly evident as the years wore on. The major problem was that they contained no built-in mechanism for stopping economies which started doing better than the average from accumulating greater and greater competitive advantage. Under the Gold Standard, any country which accumulated a balance of payments surplus automatically had its monetary base expanded by the influx of gold. This tended to push up its price level, redressing, at least in part, the balance with its competitors. Under Bretton Woods, no such mechanism operated. The onus for adjustment therefore tended to fall almost wholly on the less competitive countries, forcing them into deflation to protect their balance of payments position, or to devaluation. There was no corresponding pressure on the more successful economies to share their competitive advantage with others by revaluing their currencies.

The result was that countries, such as Britain, whose exchange rate soon after the war was evidently much too high, had no easy way of securing international agreement to getting it down to a more realistic level. Germany and Japan, on the contrary, whose exchange rates had been fixed at artificially low levels after the war, were in a strong position to resist revaluing them. Towards the end of the Bretton Woods era, the USA also began to suffer from the same malaise – increasing foreign payments weakness – as Britain, in more acute form, had experienced almost continuously since 1945. During the Bretton Woods negotiations, such was the relative strength of the US economy at the time that it probably never occurred to the Americans that they would ever find themselves in this position. When they did, it culminated in the devaluation of

the dollar in 1971, and the break-up of the system of fixed exchange rates shortly afterwards.

The consequence of this bias in the system was that countries with competitive exports and strong balance of payments positions could grow very fast, while those which were less competitive were held back by slow-growing exports, rising import penetration and balance of payments constraints. The result may have been to hold back overall growth from being as high as it could have been, but nevertheless not by much as during most of the immediate post World War II period only a small number of countries, primarily Britain, were adversely affected. Between 1950 and 1970 the cumulative expansion in the world economy averaged 4.9%.²⁰⁷ The driving force was a combination of Keynesian policies at national level and relatively minor disequilibria in trading competitiveness between the major trading nations internationally, allowing nearly all economies to expand rapidly with full employment. With comparatively low welfare dependency levels, as a result of almost all families having breadwinners, most countries had easily containable pressures on their taxation and expenditure systems, helping to keep inflation at bay.

As long as these conditions held, rapid growth could continue. When the Bretton Woods system broke up, however, the world economy began to perform much more poorly. Deprived of the restrictions and discipline within which world leaders had been used to working for a quarter of a century, there was initially, in the early 1970s, an unsustainable boom, fuelled by monetary laxity now that the Bretton Woods constraints no longer exerted their previous restraining influence. This was followed by a long period during which most of the world's major economies began to grow significantly more slowly, to exhibit much higher levels of unemployment, and to suffer far more severely than previously from inflation. This was the environment in which very different ideas from those inspired by Keynes were forthcoming in the move in intellectual fashion towards monetarism which proved to be exceptionally appealing to many people – but which also turned out to be disappointingly ineffective at dealing with the fundamental objectives with which most people think that economic policy ought

to be concerned, particularly in western countries. Between 1973 and 1992, the cumulative rise in world output slowed significantly, falling from 4.9% to 3.5% per annum, and to just under 2.9% in industrialised countries²⁰⁸ – at the same time as their performance on unemployment and inflation also deteriorated markedly. Nor has the record for recent years been much better. Inflation has fallen, but in many countries in the West, particularly the Eurozone, there is little sign of unemployment or underemployment diminishing. Between 1992 and 2015, world annual growth was 3.2% per annum but only 1.5% a year in advanced economies.²⁰⁹

The world therefore still urgently needs a framework of international economic policies which will enable the dynamism of the 1950s and 1960s throughout the industrialised world to be recovered, but which can be made to operate without the rigidities of the fixed exchange rate regime which in the end undermined the Bretton Woods system. The history since the dollar devaluation in 1971 shows how much was lost because no adequate replacement was available to carry the Keynesian legacy forward when the Bretton Woods construct, which worked better than anything the world had ever seen previously, reached the end of the period when it was viable.

5.

Post-World War II

World War II was an even worse disaster for the world in terms of loss of life and material destruction than World War I. Many more people were killed as a result of the hostilities. The increased destructiveness of the weapons used, particularly those involved with aerial bombardment, caused far more damage to railways, houses and factories than had occurred during World War I.

Of the major European economies, Germany was by far the worst affected. Constant bombing day and night for the last half of the war had reduced most German cities to ruins. Coal production, which had totalled 400m tons in 1939, fell to just under 60m tons in 1945. Crude steel production, which had been nearly 24m tons in 1939, fell to almost nothing by the end of the war.²¹⁰ The currency collapsed again, and many transactions were conducted by barter, or by using cigarettes as a temporary substitute for money. During the period immediately after the war, not only was there a desperate scarcity of industrial raw materials of all kinds, but there was also a serious food shortage. The German standard of living plummeted to a fraction of its pre-war level, as the German people eked out a living as best as they could amid their shattered country.

France, too, suffered severely during the war, but not as badly as Germany. French GDP fell 17% in real terms between 1938 and 1946, and industrial production by about the same amount. Britain did a good deal better. British industrial output grew by about 5% between 1938 and 1946, while total GDP rose 16%, having peaked some 12% higher in 1943 than it was at the end of the war.²¹¹ Paradoxically, however, the British emerged from the war in many ways much worse prepared for the peace than continental countries, almost all of which had suffered defeat at some stage during the

preceding war years. Britain's world pretensions were still intact, whereas those of the continental countries were greatly reduced. Germany in particular was allowed no more than token defence forces, whereas Britain still had millions of its citizens under arms, deployed all over the world. Britain had also run up substantial debts with supplier countries during the war, despite the large quantities of materiel provided by the USA, much of it shipped across the Atlantic without payment being required. Although substantial quantities of British foreign investments had been sold during the war to pay for supplies, large debts remained. Paying off the so-called Sterling Balances – debts denominated in sterling which were run up during World War II, mainly to Commonwealth countries – was a major commitment for Britain, unmatched by any comparable obligations undertaken by the Germans or French.

The post-World War II settlement for Europe, after some initial aberrations, was generally a great deal more reasonable and considerate than the provisions of the Versailles Treaty after World War I. The Americans, in particular, showed outstanding generosity with Marshall Aid, which, peaking at 3% of US GDP, poured into the economies of western Europe, underpinning the recovery which was beginning to take place.²¹² Of course, Marshall Aid also served the interest of the USA by supporting the creation of demand in economies with which the USA wanted to trade. There was also a political dimension. By improving living standards, it was intended to reduce the appeal of socialism and communism in Europe. It was thus both a very generous policy but also one which had clearly perceived benefits to the USA.

Currency reform in Germany in the summer of 1948 was followed by a substantial and, as it turned out, largely unnecessary 20% devaluation in 1949. In the same year, an excellent harvest did much to solve the food shortage, suddenly leaving West Germany in an extraordinarily competitive position. Even though manufacturing in 1948 was still at only half its pre-war level, and output per head was even lower as a result of the large influx of refugees from the east, over the next fifteen months production rose 57% to 87% of the 1936 level. Exports more than doubled from 19% to 43% of the pre-war figure.²¹³

The French economy also emerged from the immediate post-war period in a much more competitive position than it had been in before the war, and it began to expand rapidly. Starting from a higher base than in Germany, increases in output were still impressive. The French economy grew by 42% between 1946 and 1950,²¹⁴ and while some of this increase reflected recovery from the dislocations of the war years, much of the rest of it resulted from heavy investment in new industrial facilities, triggered off, as in Germany, by rapidly rising exports and home demand.²¹⁵ In Italy and the Benelux countries, too, there was a much swifter recovery from the war than had been predicted. Growth in exports and industrial output surged ahead, as all the erstwhile devastated economies in Europe began to recover much more quickly than the British and Americans had thought they would. By contrast, the British economy did not regain its 1943 wartime peak GDP until ten years later, in 1953 – surely an extraordinarily poor outcome, although better than what happened after the UK's peak World War I GDP in 1917, which was not exceeded until 1937 – 20 years later!²¹⁶

A large part of the reasons for the UK's economic difficulties after the end of World War II was that the British were left heavily exposed to the rapidly increasing competitiveness of the continental economies, as well as with war debts, worldwide defence obligations, and major commitments on the domestic front to the creation of the Welfare State by the Labour government elected in 1945. The loss of income from foreign investments, caused by sales of assets to pay for war supplies, meant that Britain had to cover a much higher proportion of its import costs than previously by export sales. This proved to be an impossible task during the early years after the war, despite strenuous efforts by the government. Britain was caught in a double pincer. On the one hand, there was a big dollar gap, caused by a major balance of payments deficit between Britain and the USA. On the other hand, British exports were unable to hold their own against competition from the reviving export industries of Europe. The British dollar gap problem was largely solved by the devaluation of sterling in 1949 from \$4.03 to \$2.80, but as much of the rest of Europe devalued at the same time,

the continental producers retained their competitive edge vis à vis British exporters.²¹⁷

The British problem was worsened by the outbreak of the Korean War in June 1950. British efforts to maintain its coveted – if not wholly reciprocated – special relationship with the USA led to Britain embarking on a major rearmament drive, pre-empting industrial resources away from exports, and adding to inflationary pressures. The economies on the continent of western Europe, on the contrary, were largely immune from these commitments, and continued to expand both their domestic and foreign markets.

The continental European economies were thus poised for the enormous expansion in output which they achieved in the 1950s and the following decade. Driven by highly competitive exports and aided by high levels of investment and modest rates of inflation, between 1950 and 1960, the French economy grew by 56%, Italy's by 80% and West Germany's by 115%. The British achieved a much more modest 30%. France's industrial output over the same period grew by 89%, Italy's by 131%, and West Germany's by 148%, while Britain's grew by only 28%.²¹⁸ Significantly, this was a lower percentage than the growth in the British economy as a whole, presaging problems which would be shared by the other erstwhile successful economies in future decades.

The results of the differential performance of the major economies in Europe during the 1950s and 1960s was a massive shift in their relative rankings, reflected in share of world trade, income per head and, not least, in self-esteem and self-confidence. Britain, which in 1945 had seemed to be much the most successful country in Europe, gradually began to have increasing doubts about its economic strength and its military and diplomatic position in the world. The continental economies, on the other hand, began to see each other in an increasingly favourable light, as the traumas of World War II faded in peoples' memories. Discussions about some sharing of transnational sovereignty had started early after the end of the war, culminating in the Treaty of Paris in 1951 which established the European Coal and Steel Community. Now seemed the time to embark on a more substantial and far-reaching venture.

European recovery and the Common Market

It is difficult to exaggerate the extent to which the history of Europe since World War II has been dominated by the determination of the generations which had lived through two devastating wars to make sure such a calamity never occurred again. This has been the source from which all the post-war supranational institutions in Europe have sprung, though inevitably, once in place, the organisations which had been established developed a momentum of their own. The key issue, from an economic standpoint, is the impact which this integration had on the achievement of growth, full employment and sustainable rates of inflation.

The European Coal and Steel Community was the first major consequence of the vision of Jean Monnet (1888-1979) and his associates of a Europe not only at peace with itself but bound together by increasingly integrationist and federal arrangements.²¹⁹ From the beginning, it was made clear that the intention was not just to link the countries of Europe together by expanding the commercial bonds between them, but to build supranational political structures which might eventually become the framework for a United States of Europe. The rise in power of the USA and the Soviet Union, and the divisions of Europe into East and West, made it look prudent to create a European political entity as a counterbalance to the other superpowers. Furthermore, despite the successful rate at which the continental West European economies were growing, they were still divided from each other by remarkably high tariff barriers. Most of these countries had long histories of protectionism but, in the light of inter-war experience, accepted that there were powerful arguments in favour of freer trade, with the creation of a customs union as a first step towards closer integration.

Britain was offered membership of the European Coal and Steel Community (ECSC) but rejected it. The ECSC was set up to support production, research and development, and the restructuring needs of the coal and steel industries in the countries which participated in its establishment – the same six countries which subsequently came together initially to form the Common Market. It fulfilled its function as a supranational body, exhibiting for the first time the

willingness of the participating states to give up some sovereignty for a common purpose, but in other ways it was less successful. The ECSC was essentially a cartel, whose primary function was to keep prices up to assist its members. Like all such cartels, the benefits to its constituents in enhanced revenues were clear enough. The cost to everyone else in the countries covered by ECSC, in the form of higher prices for coal and steel than might otherwise have prevailed, were not so obvious. The benefits to the coal and steel industries were bought at the expense of all their customers, some of whom, competing in international markets, were disadvantaged by higher raw material and energy costs.

Nevertheless, the experiment with ECSC was sufficiently promising to encourage the participating countries to convene the Messina Conference in 1955. The main agenda item was to consider integration on a more comprehensive scale. The outcome was the Treaty of Rome, signed in 1957, which brought the Common Market into being on 1st January 1958. The Treaty's immediate objective was to establish a customs union, although the preamble to the Treaty spoke of those setting it up being 'determined to establish the foundations of an ever closer union among the European peoples'.²²⁰ There is no doubt that many of those involved saw the Treaty of Rome as the first step towards a much more substantial political goal.

Britain, the largest and most important European economy not included among the original six, was asked to participate at Messina. The British, still sufficiently confident in their world role, the Commonwealth and their supposed special relationship with the Americans, declined to join the new organisation. An alternative British proposal, to set up an industrial free trade area in Europe without the political overtones of the Common Market and without the Common Agricultural Policy regime, was decisively rejected by the Common Market founders. They were not interested in just an economic union. As with so many of the decisions taken in Europe, which shaped the way the European Community developed, Britain's rejection of membership was taken largely on political grounds, with little thought being given to the economic consequences. In this respect the British mirrored

their counterparts in Germany, France, Italy and the Benelux countries. In summary, the motivation for setting up the Common Market was almost entirely political, as was Britain's refusal to join. In both cases, the economic arguments were treated as secondary and subordinate – a potent and unhappy precedent for the future.

In fact, the case for setting up a customs union in Europe was never as clear-cut as its proponents claimed it was. Nevertheless, a plausible justification could be made for it, on the grounds that the conditions required for the advantages to outweigh the disadvantages might, on balance, be fulfilled. The Treaty of Rome did not, however, just establish a customs union. It also set up a number of other subsidiary organisations, of which much the most significant was the Common Agricultural Policy, which was part of a deal between France and Germany. France was only willing to provide duty free access to German goods in its heavily protected market if French agriculture was protected from world competition.

The Treaty of Rome stipulated that the tariffs between the economies of the Common Market at the beginning were to fall to zero over a transitional period of ten years, starting in 1959 and ending in 1969, while a Common External Tariff was established. In fact, the abolition of internal tariffs was completed eighteen months ahead of schedule in 1968.²²¹ Whether the formation of this tariff free zone was in the best interests of the constituent countries can be broadly assessed by their growth rates during the period before and after its establishment. Table 5.1 on page 118 shows the comparative figures for the seven-year period prior to the start of the Common Market, and for six years after it came into being.

There was a small fall in the growth rate for all the Six countries taken together. Many did better in the later than the earlier period, at the expense of the German annual average growth rate which fell from 8.6% to 5.8%. Yet the most significant major influence on the relative competitiveness of the Six over the fifteen years covered by the figures were the double devaluations of the French franc at the end of the 1950s. These reduced the parity of the franc against the Deutsche Mark by a quarter, following five smaller devaluations of the franc which had taken place since 1949, evening up the

competitiveness of the French and German economies, particularly in relation to their differing inflation rates. Thus, the early success of the Common Market can be traced, to a significant extent, to the exchange rate flexibility which enabled all the constituent countries to grow at similar rates. They each preserved a broadly equal level of competitiveness, even if their inflation rates differed, without some countries running into balance of payments problems vis à vis others. Maintaining these conditions was one of the vital keys that was thrown away in the 1970s, when attempts began to be made to lock Community currency parities together.

During the same periods as those in the table below, the British economy had grown respectively by 20% and 29%, with average annual growth rates over each of the two periods of 2.6% and 3.7%,²²² about half the average achieved by the Six. The contrast between the performance of the British economy and the Common Market countries was all too striking, provoking the first application for membership by Britain in 1961. This was rebuffed by Charles de Gaulle in 1962. A second British application in 1967 fared no better with the General, whose distrust of British attitudes and intentions remained undiminished.

The logic, as opposed to the emotion, behind Britain's membership application was not easy to follow. It was widely assumed that by joining a union of fast expanding countries, Britain's growth rate would automatically be lifted to something closer to the average of those to whom it was attaching itself. Exactly how or why this should happen was not explained. Critics of Britain's application remained concerned that the root problem behind Britain's slow growth rate, which was its lack of competitiveness, would be exacerbated rather than improved by exposing Britain to more competition inside the customs union. Between 1963 and 1973, the total Common Market GDP rose by 58%, a cumulative annual growth rate of 4.7%, whereas the British GDP, protected by significant tariffs, had grown by only 39%, or 3.3% per annum.²²³ These sceptical arguments failed to win the day, however, leading to the third, and this time successful, membership application by Britain in 1970. The European Free Trade Area, comprising Britain, Ireland, Switzerland, Denmark, Sweden, Finland, Austria and

Norway, established in 1960, had failed to provide the dynamism which Britain sought. Britain became a Community member at the beginning of 1973, bringing with it Ireland and Denmark, both major British trading partners, but not Norway – which opted in a referendum to remain outside the Community.²²⁴

Up to 1973, therefore, the Common Market had been able to maintain most of the momentum established during the post-World War II recovery period. The growth rate had slowed a little since 1957, but not much, and there had also been some convergence in economic performance. Unemployment throughout the years to 1973 was very low, averaging little more than 2% over the whole period in all Common Market countries. Inflation varied somewhat from economy to economy in the Community, but was maintained at an average of a little less than 4%.²²⁵ Pride in the achievements of the last quarter of a century was understandable and considerable. An enormous increase in wealth and living standards had been accomplished. At the same time, generous welfare systems had been established, progress had been made towards making post-tax income distribution more equal or at least stopping it becoming less so, and vast improvements had been made in housing and education. Political stability seemed assured. Few people, therefore, foresaw the scale and nature of the problems which were about to unfold.

Table 5.1: Growth in the original member countries of the Common Market for the 15 years spanning its establishment in 1958

	1950-57		1958-64	
	Total % increase	% increase per year	Total % increase	% increase per year
France	38	4.8	46	5.5
Germany	78	8.6	48	5.8
Italy	53	6.2	59	5.9
Belgium & Luxembourg	24	3.1	39	4.8
The Netherlands	38	4.8	44	5.3
Average of the original six countries	54	6.3	47	5.7

Source: Derived from OECD National Accounts.

US experience post-World War II

The years immediately following the end of World War II saw a substantial slackening of demand on the US economy as government procurement for the war effort fell away, and US GDP fell over 17% between 1944 and 1947. Unemployment rose from 1.2% to 3.9% and the peak wartime level of output achieved by the US economy in 1944 was not regained until 1951.²²⁶ The US economy was, nevertheless, in an extremely strong position after 1945. Partly because of the dominant position in which it found itself in the post-war period, however, the USA was faced with a number of problems which tended to sap rather than reinforce its growth performance in the decades to follow.

First, its victorious position left it with heavy international commitments, which greatly increased US unilateral transfers abroad. The most substantial of these was expenditure on major military presence in Europe, the Far East and elsewhere, whose cost increased sharply with the advent of the Cold War. An additional peak was caused by the Korean War which broke out in June 1950. Significant sums were also paid out to various international programmes, not least Marshall Aid.

Aid programmes also went some way towards helping to deal with the second problem with which the USA had to contend, which concerned trade imbalances. Although there was a large potential demand for US exports, which should have helped to boost the US economy, during the immediate post-World War II period, the rest of the world was extremely short of dollars with which to pay for them. Marshall Aid helped fill the gap, not only by assisting recovering economies directly with aid on soft terms, but also by providing them with subventions in dollars, which they in turn could use to buy American goods and services. There was still, however, a substantial 'dollar gap' which could only be filled when the recovering economies had got themselves into a strong enough position to trade on equal terms with the USA. This was a prerequisite for the achievement of one of the major US policy goals in the immediate post-war period, which was to see artificial barriers to trade and international payments removed, allowing the

world to return to something like nineteenth century conditions, as opposed to those of the inter-war period. Although, as we have seen, American tariffs in the period running up to World War I were very high, the US authorities now decided that, in the interests of the world as a whole, as well as themselves, protectionism was not the way ahead. Freer trade and multilateral payments were not, however, achievable unless all the economies concerned could participate on manageable terms.

These considerations led to the third problem, which in the long term proved to be the most serious. After the war, the victorious Allied powers were anxious that the defeated nations should not indefinitely require succour and subsidy. Greatly underestimating their erstwhile enemies' capacity for revival, the Allies therefore took active steps to ensure that the economies of the countries which had lost the war should have some chance of speedy recovery by providing them with exceptionally competitive parities for their currencies. This affected not only the German Deutsche Mark, following the currency reforms of 1948 and the DM devaluation of 1949, but also the yen, where similar financial reforms carried out at the same time by the administration of General Douglas MacArthur (1880-1964) in Japan, provided the Japanese economy with an exceptionally competitive cost base.

Germany and Japan, therefore, soon began to surge ahead with remarkably rapid recoveries. At the same time, other developed nations which had been overrun during the war also began to perform much better than they had done previously. Some of this performance was due to recovery from the wartime devastation, but other causes were almost certainly important. Nearly all the leaders of these countries exhibited a new determination to run their economies more successfully, learning from the mistakes of the inter-war period, fortified by the doctrines of Keynes and his associates. Old élites were swept away, discredited by wartime failure or collaboration, leaving the field free for fresh talent. Opportunities opened up by rapid growth in the post-war recovery period sucked able people into those parts of the economy where the scope for productivity gains was greatest, in manufacturing and exporting. As a result, strong and influential social and political

groupings were established, determined to safeguard industrial and trading interests. The absence of the benefits from this kind of upheaval was a major reason why, during the 1950s and 1960s, the US economy grew more slowly, at 3.6% per annum, than those of either continental Europe and Japan, or that of the world as a whole which grew at 4.8% a year during this period.²²⁷

Again, it is important to remember that the impact of differential growth rates, which may seem small viewed a year at a time, have a huge compound effect over any reasonably long span of years. During the twenty years between 1950 and 1970, the ratio between the size of the British economy at the end of this period compared to the beginning was 1.7, for the USA it was 2.0, for the West European economies it was 2.6, and for Japan it was 6.8. Allowing for population growth, the disparities in the changes of living standards caused by these differences in growth rates were even more marked. By 1970, another massive alteration in the distribution of world economic power had taken place. Whereas up to 1945, however, the underlying trend had been to increase the relative strength of the US economy vis à vis the rest of the world, for all of the first quarter of a century after World War II the USA was in relative decline, a trend which has continued since.

During the late 1960s, the prospects for the American economy began rapidly to darken. A major cause of these upsets was the combination during the late 1960s of escalating expenditure on the Vietnam War with the rapidly rising costs of implementing the Great Society programme, which the Democrat president, Lyndon Johnson (1908-1973), had close to his heart. Successive reports from the military in charge in Vietnam, particularly General William Westmoreland (1914-2005), each suggesting that a further comparatively modest increase in expenditure would move the outcome of the war decisively in the USA's favour, had turned out to be false. As a result, the cost of the war had steadily mounted. Total defence expenditure rose from \$51bn in 1964 to \$82bn in 1968, an increase as a proportion of GDP from an already high 7.4% to 9.4%.²²⁸ The Great Society programme was both a cherished big government Democrat programme in its own right, and a response to the civil rights campaigns of the 1960s, which in turn had drawn

in other disadvantaged groups. Its cost, however, was also high. Expenditure on income support, social security, welfare, veterans' benefits and family assistance, which had been \$38bn in 1964, had risen by 1968 to \$63bn, an increase from 5.7% of GDP to 6.9%.²²⁹ The combined cost of the war and rising social expenditure therefore involved an increase in expenditure of 2.6% of GDP in three years.

A shift of this magnitude might not have been a problem if taxation had been raised to pay for it, but this did not happen. Federal receipts as a proportion of GDP stayed the same between 1964 and 1968 – at 17.6%.²³⁰ The result was highly inflationary as government expenditure rose rapidly, financed largely by borrowing from the banking system, generating a fiscal deficit which peaked at \$25bn in 1968.²³¹ This occurred at a time when the US economy was already booming, although – very significantly – private fixed investment as a proportion of US GDP never rose during the 1960s to above a little over 15%,²³² a very low figure by international standards. By the end of the 1960s, the average age of US plant was eighteen years, compared to twelve in West Germany and ten in Japan.²³³ The overall result was that the economy became progressively more overheated, and its output less internationally competitive. Consumer price inflation, which had averaged 1.3% per annum between 1960 and 1965, reached 5.7% in 1970.²³⁴ The surplus on trade in goods and services achieved every year since 1945, shrank to \$91m in 1969 and moved into a heavy deficit in the 1970s.²³⁵ Imports of motor vehicles and parts alone rose from \$0.9bn in 1965 to \$5.9bn in 1970, a real increase of nearly 450%, while over the same five years, imports of consumer goods, excluding vehicles, rose from \$3.3bn to \$7.4bn, almost doubling in real terms, allowing for inflation.²³⁶

When President Richard Nixon (1913-1994) took over the White House in early 1969, he therefore faced an increasingly difficult economic situation. The Vietnam War was wound down, and government expenditure cut, but inflation persisted, despite rising unemployment. The wage and price control programme, introduced by the new president, helped to bring the rate of increase in the Consumer Price Index (CPI) down from 5.7% in 1970 to 3.2% in 1972,²³⁷ but at the cost of unemployment rising to 5.6% by 1972, up from 3.5% in 1969.²³⁸

Meanwhile on the external front, the situation was also deteriorating. Having moved back into surplus in 1970, the balance of trade showed a \$1bn deficit in 1971, to be followed by \$5bn in 1972.²³⁹ It became clear that the dollar was seriously overvalued. The result was a conference, held in August 1971 at the Smithsonian Institution in Washington DC, at which the USA announced that the link between the dollar and gold, which had underpinned the Bretton Woods system, could no longer be kept in place. The dollar was then devalued, and the Bretton Woods fixed exchange regime broke up. With the dollar no longer available as an anchor reserve currency, all the major currencies in the world began to float against each other.

By 1972, the dollar had fallen 16% against the yen, 13% against the Deutsche Mark, 4% against the pound sterling and around 10% against most other currencies.²⁴⁰ As a result, by 1973 the US balance of trade showed signs of recovery. The absence of exchange rate constraints for the first time for decades, however, left policy makers throughout the world without familiar landmarks to guide them. Shorn of accustomed constraints, most countries began to reflate simultaneously. Credit controls were relaxed, and the money supply greatly increased, partly fuelled by an increasing pool of euro-dollars, themselves the product of the US deficit. World output soared, growing 6.7% in 1973 alone.²⁴¹ The impact on commodity markets was dramatic. After years of falling prices, caused by excess capacity, demand suddenly exceeded supply. The prices of many raw materials doubled or trebled. Then, in 1973, the Yom Kippur War broke out between Israel and the surrounding Arab States. It ended with a resounding victory for the Israelis, but at the cost of the West seriously alienating the Arab States, many of them major suppliers of oil to the western nations, particularly the USA, which had supported Israel during the conflict. A little later, in 1979, OPEC, the oil producers' cartel, raised the price of oil from around \$2.50 to \$10 per barrel.²⁴²

The consequences of all these events for the developed world were disastrous. The increased cost of oil, although it only represented about 2% of the West's GDP, presented oil importers with a new and highly unwelcome blow to their balance of payments. Almost

all tried to shift the incidence elsewhere by a process of competitive deflation. At the same time, the quadrupled price of oil, accompanied by the doubling and trebling of the cost of other commodity imports, greatly increased inflationary pressures. Growth rates tumbled, and unemployment rose all over the world, as inflation moved to unprecedented levels. Mirroring similar developments in other advanced countries, the US economy, far from growing, shrank by 0.6% in 1974 and 0.4% in 1975.²⁴³ Unemployment rose to 8.5% in 1975,²⁴⁴ while the year on year increase in the consumer price level peaked at nearly 11% in 1974.²⁴⁵

The severe economic difficulties and disruption facing the whole world – not just the USA – in the mid-1970s did not, however, only affect rates of inflation, growth and unemployment. They also had a profound effect on the intellectual climate. The consensus around the ideas of Keynes and his associates, which appeared to have guided world economic policy so successfully in the 1950s and 1960s, was shattered. Demand management did not appear to provide any satisfactory solutions to the problems faced by those confronted with the severely unstable conditions, particularly unprecedentedly high peace-time inflation, with which they now had to cope. Into the vacuum thus created, moved an old economic doctrine in a new guise, to take the place of discredited Keynesianism. Monetarism arrived on the scene in the USA and elsewhere as the intellectual underpinning of economic policy formation in a world which had lost fixed exchange rates and the discipline they provided as the anchors for taking decisions.

Mixed fortunes in Japan

The countries in Asia comprised the largest part of the world economy in 1820, with nearly 70% of the world's population and almost 60% of its GDP.²⁴⁶ At this time, there was not a huge disparity in income levels between different countries in the region. By 1992, however, GDP per head in Japan was over six times the level achieved in China, more than fourteen times that in India, and twenty-seven times that in Bangladesh.²⁴⁷ How did the Japanese manage to secure this achievement?

The turning point came with the arrival of the US Navy in Tokyo Bay in 1853, forcing an end to the policy pursued in Japan for more than two centuries of almost total isolation. In the 1630s, the new Tokugawa shogunate, established at Edo, now Tokyo, had prohibited all travel abroad. All foreigners were expelled, except for a small colony of Dutch East India Company traders on Deshima Island, near Nagasaki, who were allowed to receive one ship a year from Indonesia. Christianity, introduced previously by St Francis Xavier (1506-1552), was suppressed.²⁴⁸ When the Americans arrived, therefore, the Japanese economy was in an exceptionally backward condition, with living standards roughly on a par with those in Europe in the late Middle Ages.

While the economy was undeveloped, however, Japanese political and social institutions were considerably more flexible and robust than might have been expected. As a result, although trade concessions were extracted by the Americans, and extended to the French, Dutch, Russians and British, and treaties were forced on Japan in 1854 which restricted its commercial and fiscal autonomy, the Japanese were able to respond far more positively to the challenge presented by western intruders than had happened elsewhere in the East. This was partly because the Japanese had always borrowed important elements of the Chinese and Korean civilisations, and were therefore not ashamed to copy a western model which had demonstrated its superior technology so dramatically.²⁴⁹ The Tokugawa shogunate, humiliated by the challenge from abroad, was overthrown in 1867, and Emperor Mutsuhito (1852-1912) assumed full powers, adopted the title *Meiji*, which means 'enlightened rule', and launched a policy of swift Westernisation.²⁵⁰

The results were dramatic. Within a remarkably short period the previous rigid stratification of society was abolished. Land could be bought and sold freely. Primary education became compulsory, and new textbooks were written with a western orientation. Large numbers of students went abroad to receive technical and higher education. Tariffs were fixed at no more than 5% so that the economy was open to western imports. The Japanese army and navy were reformed and rearmed using western technology. The government

then set out on a programme of economic development, much of it with a heavy military orientation, which had no parallel elsewhere in Asia, though not so dissimilar to developments elsewhere in the world where militaristic regimes were in control.²⁵¹

The result was a steady expansion of the Japanese economy, which grew at a cumulative rate of 1.4% per annum between 1870 and 1885, accelerating to 3.1% between 1885 and 1900, and then slowing to 2.5% between 1900 and 1913.²⁵² World War I saw the Japanese economy growing rapidly, and by 1919, Japanese GDP was over 40% higher than it had been in 1913. After a sharp post-war recession, the economy continued to expand during the inter-war period, checked only by a comparatively minor drop of 7% between 1929 and 1930. As in Germany, the advent of a militaristic regime, determined to drive the economy forward, produced a much higher growth rate. Between 1930 and the entry of the Japanese into World War II at Pearl Harbor in 1941, Japan's economy grew at a cumulative rate of 5.4% per annum.²⁵³ By then GDP per head in Japan was approaching the level of the poorer West European countries, though it was still only half the level in Germany and 40% of that in Britain at the time.²⁵⁴ Close to half of all employment in Japan – 43% – was still in agriculture, forestry and fishing.²⁵⁵

While Japanese military ventures, including, during the 1930s, the invasion and occupation of Manchuria and parts of China, followed, in 1940, by French Indo-China, had helped to stimulate the economy, World War II was a total disaster for Japan, as it was, to a similar extent, for Germany. Between 1941 and 1945, Japanese GDP fell by more than half.²⁵⁶ By 1946, industrial production was down to 20% of its 1941 level, and steel production had fallen 92%. Two thirds of its large cotton textile capacity had been destroyed.²⁵⁷ In 1945, Japan – before long to be the car maker for the world – produced a total of 8,200 cars and commercial vehicles.²⁵⁸ Leaving aside the damage done by atomic weapons in Hiroshima and Nagasaki, American bombing raids had left all major Japanese cities in ruins. Inflation was rampant. The Japanese were humiliated and destitute.

When the American occupation, headed by General MacArthur, began, its major objectives were first to reform Japanese political institutions in order to extirpate the militaristic legacy which had

caused so much harm, and, secondly, to get the economy back on its feet, and to stop it being a drain on the American taxpayer. The main problem, apart from general distress, was to get exports moving again so that the country would be able to pay for the food and raw materials it needed, which in the immediate post-war period had been provided mostly through the Allied occupation forces, financed largely by the USA. The solution adopted was a reform of the currency, fixing the yen in 1948 at 360 to the dollar as part of the Dodge Line financial measures.²⁵⁹ As post-war recovery set in, this left the cost base in Japan, measured by international standards, being charged out at an exceptionally low level, similar to what happened in Germany.

The response in Japan was very similar to what it was among all the developed countries which had been defeated at one stage or another during World War II, all of whom found themselves, in varying degrees, in the same competitive position as the victorious Allies hugely underestimated the capacity of vanquished nations to recover. Talent poured into industry as major opportunities opened up to make fortunes on world markets. Japanese sales abroad began to soar. By 1973, Japanese merchandise exports were 27 times as high in volume terms as they had been in 1950. Germany's, by contrast, were 15 times as high, the USA's 4 times, and Britain's 2.4 times.²⁶⁰ In 1950, Japan's share of world trade was 1.3%. In 1973 it was 16.4%.²⁶¹ Nothing shows more clearly than these figures that the economic history of the world, especially since the trade liberalisation that has taken place since 1945, is largely written in export competitiveness, and the alignment of exchange rates which either makes astounding success possible if the parity is favourable, or inhibits it if it is not.

Initially, Japanese post-war exports consisted mostly of comparatively simple goods, in all of which Japan had an enormous price advantage because the costs of production, measured internationally, were so low. Japan had a long history of textile manufacturing and metal working. Newer industries, such as those involving the use of plastics, where the technology was comparatively simple, were quick and easy to establish. As had happened in the nineteenth century, however, the Japanese

were not content to see their role solely as the producers of low-tech goods. The economy rapidly developed a formidable capacity for moving up-market and for making its own capital goods, as well as expanding its heavy industries in steel and shipbuilding, and its oil refining and electricity generating capacity. Crude steel production, which had been 557,000 tons in 1946, reached almost 120m tons by 1973. By then, Japan was generating over twenty times as much electricity as at the end of World War II. Perhaps the most outstanding success story of all was to be found in the motor vehicle industry. Starting from the 8,200 units of all kind produced in 1945, by 1973 Japanese manufacturers produced over 7m vehicles, and by 1983, more than 11m.²⁶² Riding on the massive growth in exports, which averaged a cumulative increase of over 15% per annum between 1950 and 1973, the Japanese economy grew extremely rapidly. Having only exceeded its 1943 peak wartime output for the first time in 1953, by 1973 it was 7.6 times the size it had been in 1950, after a cumulative average growth rate throughout these twenty-three years of 9.2%.²⁶³ The comparatively low increase in the population – just over 1.1% per annum between 1950 and 1973²⁶⁴ – avoided much dilution of the increase in GDP, so that GDP per head also rose strongly, by 8.0% per annum throughout this period. By 1973, Japanese living standards were on a par with those in Britain, and not far behind those in most of western Europe – a massive change from the position which had prevailed a quarter of a century earlier.²⁶⁵

There is a vast literature about the reasons for the remarkable achievements of the Japanese economy, especially during the period up to 1973 – when its growth rate was at its highest. Undoubtedly, a number of factors played an important role. All the countries defeated at various stages in World War II had a resurgence once the war ended, as older leaders became discredited, and new opportunities opened up for those, hungry for success, who replaced them. All of them had well educated, well trained and experienced labour forces. The disruption caused by such large-scale warfare – as had taken place during the first half of the twentieth century – left a substantial legacy of inventions and technical possibilities to be exploited, and the Japanese were exceptionally well placed to

take advantage of these opportunities. Other characteristics more specifically orientated to institutions and culture in Japan have also been cited. The homogeneity, discipline and national pride of the Japanese people undoubtedly helped to generate a focused work ethic. Some have argued that the consensual Confucian tradition may also have assisted. The heavily protected domestic market generated massive savings which produced a large pool of investible funds available to the export sector.

By far the strongest argument that none of these factors was fundamentally the cause of Japanese success, however, lies in the fact that their alleged influence evaporated as soon as the Japanese economy lost the real reason for its rapid growth, which was its undervalued exchange rate. Until 1971, this stayed at 360 yen to the US dollar.²⁶⁶ Because the Japanese export drive was so successful, and the amount of investment in production facilities available for the world market was so high, Japanese export prices rose during the 1950s and 1960s by barely 1% a year,²⁶⁷ despite relatively high levels of domestic inflation, which averaged 5.2% per annum between 1950 and 1973.²⁶⁸ The result was that Japanese exports became more and more competitive, thus fuelling the next stage of their expansion. Although, immediately post the 1971 move towards floating rates, the nominal value of the yen strengthened against the dollar by some 20%, followed by a slow further hardening of the yen, the competitiveness of Japanese exports continued to be maintained.²⁶⁹

The turning point came in the mid-1980s, when the yen suddenly strengthened against the dollar as the exchange rate moved from 238 yen per dollar in 1985 to 168 in 1986 and 145 in 1987. After staying roughly stable until 1990, it moved up again, peaking at just under 100 in 1995, before weakening to 131 in 1998.²⁷⁰ The reason for the hardening of the yen was the huge balance of payments surplus which the Japanese started to accumulate from the early 1980s onwards, after decades when the Japanese current account had been in rough balance. There was a massive surplus on merchandise account, which reached over \$44bn in 1984, and which averaged almost \$90bn per annum in the late 1980s, partly offset by a deficit on services, but increased by a rising net income

from investments abroad. Overall, the current account surplus run up by the Japanese economy between 1984 and 1994 totalled a staggering \$932bn.²⁷¹

The effect on the volume of Japanese exports as a result of the strengthening yen at the beginning of the 1990s was immediate. The price in yen which Japanese exporters could charge the rest of the world fell by about 20%, putting a severe strain on their previously buoyant profitability. The increase in volume of exports slowed to a crawl. Between 1973 and 1985, the cumulative annual rise had been 8.6%. From 1985 to 1994 it was 2.0%.²⁷² As the stimulus to the economy from exports died down, so did the overall growth rate, but only after a speculative boom in the 'bubble economy' of the late 1980s. This kept GDP rising between 1985 and 1991 at an average of 4.4% per annum, but no longer on the sustainable basis which had applied previously when exports had been growing faster than GDP. The result was that when the boom broke, Japanese banks were left holding massive uncovered debts, and the economy stalled. In 2000, Japanese GDP was only 10.4% higher than it had been in 1991.²⁷³ Expenditure on investment, previously another major growth component, was the same in 1997 as it had been six years earlier.²⁷⁴ The first two decades of the twenty-first century were no better, with growth averaging at barely 1% per annum.²⁷⁵ All the efforts made to reflate the economy and to get it growing again foundered on the fact that the value of the yen, propped up by all the well-known difficulties of selling into the Japanese market, was far too high for exports and investment to drive the economy as they had done previously.

The major mistake made by the Japanese was to allow their huge balance of payments surplus to accumulate in the 1980s. Every country's surplus has to be matched by corresponding deficits somewhere else, and the rest of the world choked on the success of Japanese exporters, unrequited by sufficient imports to keep Japan's current account in reasonable balance. The Japanese continued to protect their surprisingly inefficient non-export orientated domestic market, thus discouraging imports and increasing their foreign payment surplus. Meanwhile, their huge pool of savings was used to fuel property speculation instead of investment in

export orientated industries, as had been the case previously. The price eventually paid for these errors was extremely heavy.²⁷⁶

In the end, therefore, there is nothing that cannot be explained about the Japanese economy. It was only an extreme example of the impact which an exceptionally competitive cost base can achieve, followed by this huge advantage being lost as a result of policy mistakes being made, which caused the currency massively to appreciate. As with the leaders of so many other countries, however, those in Japan appear never to have fully understood or appreciated the fundamental underlying reasons for the success over which they presided. If they had, it seems hard to believe that they would have allowed the conditions which were so important to the economy – for which they were responsible – to melt away so unnecessarily and as damagingly as they did.

The USSR and the Command Economies

By far the largest departure from the organic way in which most of the world's economies have grown was the deliberate attempt to get rid of the capitalist system undertaken by the successful revolutionaries in Russia in 1917, and their successors in subsequent regimes devoted to running their economies on non-market lines. While the writings of Karl Marx had been the basis on which communist beliefs were founded, Marx had little to say about how economies were to be run when the revolutions he advocated had taken place. Lenin (1870–1924) and his associates and successors therefore had to formulate policies as they went along, without much of a blueprint from which to work, other than the general objective of eliminating as much private ownership as they could, while getting the economy to grow as fast as possible with a crash programme of industrialisation.

The Russian economy which the Communists inherited had expanded substantially during the late nineteenth and early twentieth centuries, with growth rates of 2.0% per annum between 1870 and 1900 and a rather more impressive 3.2% per annum between 1900 and 1913.²⁷⁷ Mostly as a result of state initiatives, by the start of World War I, there was a reasonably extensive railway

system,²⁷⁸ and some heavy industry. The standard of living in Russia was, however, well below the level of most of the rest of Europe, although slightly above that of Japan.²⁷⁹ The Russian economy was severely disrupted by World War I, and there was heavy loss of life. Another 10m died in the course of the revolution, civil war and attacks on the new regime from western powers, fearful of what the successful replacement of capitalism might presage. As a result, it was 1930 before the Soviet economy recovered the same level of output as it had enjoyed in 1913,²⁸⁰ providing its rulers with a poor, backward and fractured economic base on which to build.

Although initially relatively liberal, during its New Economic Policy phase the Soviet regime soon toughened its stance. Lenin died in 1924, to be succeeded by Joseph Stalin (1879–1953), who introduced the system of five-year plans, the first two of which, when extended, covered the period from 1928 to 1939. Heavy and light industries were developed, and agriculture collectivised. The country began to be transformed as industrialisation proceeded and the urban population quickly doubled.²⁸¹ The cost, however, was prodigious not only in human terms, as millions died in the Ukraine and Kazakhstan famines of 1932-34 and in political purges and liquidations, but also in economic terms as state policies drove down the current standard of living to enable more and more resources to be mobilised for investment in the future.²⁸²

The result was that the Soviet economy grew during the 1930s relatively quickly, but, as a result of high capital to output ratios, much more slowly than would have been achieved if western standards of return on the use of capital had been attained. Between 1928 and 1940, Soviet output rose by an estimated 81%, with an average per annum growth rate of 5.1%.²⁸³ Thereafter, although until 1941 the USSR had staved off being involved in World War II as a result of the non-aggression pact negotiated with Germany in 1939, once the German invasion began in June 1941, the USSR was subjected to four traumatic years of carnage and physical damage. About 25m Soviet citizens are believed to have lost their lives as a result of the German invasion,²⁸⁴ and the damage done to the area occupied by Axis forces was immense. As a result, in spite of huge continuing investment in new production facilities, the output of

the Soviet economy was over 20% lower in 1946 than it had been in 1940.²⁸⁵

The post-World War II period, however, saw a steady increase in output, which rose every year until the end of the 1950s at an average rate between 1947 and 1958 estimated at 7.3%, a considerably higher pace than was being achieved anywhere else except in Japan and Germany.²⁸⁶ This began to cause mounting concern in the West, particularly in the USA, whose growth rate was barely half that of the Soviet economy, prompting Nikita Khrushchev (1894-1971), by then leader of the Soviet Union, to promise while in the USA in 1959 that the USSR would shortly overtake the American standard of living.²⁸⁷ This threat, however, gradually, became emptier. As the years wore on, it became increasingly clear that, although the Soviet economy had responded reasonably well to large investments in basic industries, running a consumer-orientated economy was much more difficult to manage without a market framework within which to do it.

Although attempts were made to get the Soviet economy to produce more consumer goods of reasonable quality, after Stalin's influence had worn off and following Khrushchev's speech in 1956 denouncing his excesses, the results were remarkably unsuccessful. The Soviet economy continued to have a high proportion of its GDP devoted to investment, but the growth rate in the economy slowed, and consumers remained dissatisfied. Between 1959 and 1973, the Soviet economy grew at a still more than respectable estimated 4.9% per annum, but thereafter, during the era presided over by Leonid Brezhnev (1906-1982), growth slowed to 1.9% per annum.²⁸⁸ During the whole of the period between 1973 and 1989, before the USSR began to disintegrate, GDP per head in the Soviet Union increased at a cumulative rate of less than 1% per annum,²⁸⁹ allowing for the military build-up which was taking place. The disposable income for the average Soviet citizen stopped rising after 1973, stabilised, of course, at a far lower level than in the USA, where, nevertheless, a remarkably similar stagnant real income phenomenon was to be found among large sections of the population.

Unquestionably, part of the reason for the relatively poor performance in the later years of the USSR was the exceptionally

heavy military burden which the economy had to bear, particularly from the mid-1960s onwards when the Cold War intensified.²⁹⁰ After making all allowances for this, however, the root problem with the system proved to be the impossibility of running a more and more complex economy on the basis of central plans, with market signals largely suppressed. This led not only to the rate of growth slowing down, but to more and more serious problems of resource allocation as their appropriation became ever more complicated, reducing the real value to the final consumer of the goods and services which were produced.

The problems of the Soviet economy were mirrored in varying degrees of intensity among all the East European countries which were obliged to adopt command economies at the behest of the USSR after the installation of communist regimes following the Soviet occupation after World War II. A particularly interesting example was the German Democratic Republic, which was long regarded as being the most successful of the Soviet satellites. Prior to reunification, western estimates of East German per capita GDP levels had put them at about three-quarters of those in the Federal Republic and about two-thirds of those in the USA. When in 1990 the Berlin Wall came down, however, and East and West Germany were reunited, these estimates were found to be about 50% too high. The actual East German level of GDP per head was only about two-thirds of what it had been thought to be, confirming strongly the deep-rooted inefficiency of even a comparatively well-run command economy, and emphasising the weaknesses in economic performance from which the erstwhile USSR had suffered.²⁹¹

It was therefore hardly surprising that the process of integrating the two parts of Germany together was found to be far more difficult and expensive than had been previously envisaged. Part of the problem was the well-meaning but, in practice, very damaging undertaking by Helmut Kohl (1930-2017) to provide parity between the Ost Mark and the Deutsche Mark which, at a stroke, made almost all of the former DDR's output grossly overpriced and uncompetitive. Meanwhile, the condition of even those parts of the DDR's economy which were thought to be performing reasonably well generated requirements for massive remedial expenditure. The concentration on production

at all costs in East Germany had left environmental considerations well down the order of priorities. The result was pollution over large areas on a scale which those used to western-style regulation found hard to comprehend. The quality of the goods which were being produced, having never been exposed to competitive pressures, was far below world standards, apart from the fact that they were now, in addition, very expensive. The legacy of command economies for those who lived in them and the states which succeeded them has not, therefore, been an easy one. Wrenching transitions were required, tending to be more pronounced for those economies longest exposed to communism. Between 1990 and 1992 alone, Russian GDP fell by over 30%.²⁹² The weaknesses of the command economy approach lay exposed for all to see.

Yet a sense of balance is required. The record of the Soviet economy and its satellites had some points in its favour. Although achieved at very high cost, the growth rates for long periods were greater than those attained elsewhere in the world. For much of the period, they were also steadier. While the western world plunged into depression post-1929, the Soviet economy grew every year from 1928 onwards, except for a minor 1% fall in 1932.²⁹³ The command economies also provided employment for virtually everyone, although at a heavy cost in the efficiency with which the labour force was used. These achievements, combined with the Soviet ability to expand without assistance from outside, were sufficient to attract partial copying by many third world countries once they had gained independence after World War II. There was no problem about maintaining a high level of demand in command economies or – however expensively – in achieving high levels of investment. The difficulties, which in the end overwhelmed them, were those of allocation of scarce resources and quality of output.

The developing world

While the main emphasis so far has been on those countries which began to industrialise earliest, and which therefore now have the highest standards of living, most of the world's population has lived elsewhere. In 2014, out of a world population of 7.3bn, just

under 20% of the world's inhabitants lived in fully developed parts of the world.²⁹⁴ In 1992, the average income per head among the then remaining 76% of humanity, measured in 1990 US dollars, was \$2,173, compared to \$19,175 for the industrialised countries.²⁹⁵

The developing and undeveloped nations of the world are not, however, by any means homogeneous either in the absolute standards of living which they have managed or in their growth records during the previous decades. The broad picture, according to Purchasing Power Parity figures for 2019 compiled by the IMF, is that the standard of living in Latin America is a little above the world average of \$18,391, with Chile at \$26,317 and Peru at \$14,719. In Asian countries, the spread is much wider. Singapore (\$101,181) and Hong Kong (\$66,528) were well above average EU levels, Japan (\$45,546), and South Korea (\$44,740) about the same, while others, such as Thailand (\$20,365), China (\$19,504) and Indonesia (\$13,998) were much lower, with India (\$8,378), Pakistan (\$5,872), Myanmar (\$6,707) and Bangladesh (\$5,028) lower still. The income levels in Africa were both lower than in Asia, and even more skewed. South Africa (\$13,754) had a relatively high average figure, masking very large income differentials within its boundaries. Other major African countries had GDP per head at little more than 10% of western levels at best, with Nigeria at \$6,055, shading down to desperate poverty in Liberia (\$1,414) and the Congo (\$849), where the average income for the whole population was barely more than \$2 per day.²⁹⁶

As to the growth records leading up to where they are now, the Latin American economies had all started developing fairly early. By 1913 their average living standards were a little less than half those in the western industrialised economies. By 1950, mainly because they were not involved to any significant extent in either of the world wars, they were at just over half the western level. Thereafter, they continued to perform more or less on a par in terms of growth rates with the more advanced economies, helped by the boost provided to some of them by the discovery and exploitation of large oil deposits. Between 1950 and 1973, the combined cumulative average growth rate for Latin America was 5.3% per annum. Between 1973 and 1992, it was 2.8% rising to an average

of about 3% since then.²⁹⁷ High growth rates in the population, however, have meant that the expansion of the South American economies has not been matched by corresponding increases in living standards.²⁹⁸

In Asia, the growth record has been much more impressive, with an overall cumulative average growth rate of 6.0% between 1950 and 1973, 5.1% between 1973 and 1992, and 7.9%²⁹⁹ between 1992 and 2017, starting from a base position which, in 1950, showed GDP per head to be on average not much more than one-tenth of its level in the West. As the population growth rate was markedly lower than in South America, living standards rose correspondingly more quickly – cumulatively by 3.8% for the first period, 3.2% in the second³⁰⁰ and 6.3% in the third.³⁰¹ A point of considerable significance, however, is that while Japanese per annum growth slowed up dramatically from about 1990 onwards, most of the rest of the major Asian economies did better in the third period than the first two. The improved performance included much better results between 1992 and 2017 from Pakistan at 4.1% cumulative growth per annum, 5.6% for Bangladesh, 5.5% for Malaysia, 6.9% for India and 9.6% for China. These figures illustrate all too graphically how rapidly economic power is moving from the West to the East. The average cumulative growth rate across the whole of the developed world between 1992 and 2017 was 2.1%.³⁰²

In 1950, the average standard of living in Africa was a little higher than in Asia,³⁰³ and between 1950 and 1973, the overall growth record in Africa, at a cumulative 4.4% was only a little below the world average of 4.9%.³⁰⁴ The period of 1973 to 1992, however, showed the growth rate slowing to 2.8% a year. The major problem in Africa was not so much the slow increase in GDP but the very high birth rate – leading to population growth of 2.4% per year in the earlier period and 2.9% in the second.³⁰⁵ The result was a 2.0% per annum increase in living standards between 1950 and 1973, but a fall of 0.1% a year between 1973 and 1992.³⁰⁶ Between 1992 and 2017, the growth rate rose to 3.4%, accelerating in the 2000s as exploitation of Africa's natural resources gathered pace. The very high birth rate in Africa, however, meant that the rise in living standards has still been very low.³⁰⁷

There are some important lessons to be gained from the experiences during the last fifty years of the developing and less developed countries covered in this brief survey. Unquestionably, some of the poor results achieved were the consequence of maladministration, corruption, warfare and instability, which no economic policies, however well-conceived, are capable of overcoming. Leaving these factors aside, however, a number of patterns can be detected.

First, the Soviet model of forced industrialisation turned out to be an extremely poor one. Not only did it lead to large-scale waste and misallocation of resources, but the bureaucratisation and industrial favouritism which it encouraged militated against opening up the economies adopting this approach to the stimulus of international competition. The results were high import tariffs, exchange controls and restrictions on capital movements, designed to protect indigenous industries, often owned by the state or by those associated with its political leaders. Economies which adopted such policies tended to suffer from the need to service the costs of large-scale borrowing to finance investments, many of which both achieved little or no financial return, and failed to produce world class goods and services. The inefficient and uncompetitive export sectors – which were the consequence – were unable to launch themselves successfully on world markets. Most countries which once modelled themselves, at least in part, on the USSR have now long since ceased doing so, and their economic performance, although sometimes offset by other factors, has improved accordingly.

Second, there are a number of social policies which clearly favour fast growth and rising living standards. The more successful economies have tended to be those with high literacy rates and good technical training, rather than those, such as India, which have been inclined to concentrate resources on university education at the expense of the wider population. In the mid-1990s, 38% of men and 66% of women in India were still illiterate, compared to 16% and 38% respectively in China, and 9% overall in Taiwan, with much more difficult kanji-based writing to learn.³⁰⁸ It is also evident that countries which have reliable legal systems, well-regulated financial sectors, successfully planned infrastructures and fair and

impartial tax systems, ought to have an edge on those which lack them, although it is easy enough to find examples of countries which have prospered without these advantages. None of these requirements, desirable though they may, appear to be a *sine qua non* of economic success.

Third, rising populations have clearly been a major factor in increasing the size of many of the world's economies, but the dilution of GDP caused by there being more and more people among whom it has to be shared, has held back living standards in many countries, especially in Africa and some parts of East Asia, where the population is rising most rapidly. Far the most effective way to slow down population growth is to raise living standards, but this generates a difficult chicken and egg problem if increasing GDP is being heavily diluted by population growth. The time when the richer parts of the world can afford to ignore the need to provide more direct and indirect assistance, particularly better trading opportunities, to help deal with this issue, however, may be shorter than many people realise.

Fourth, the strongest link between those economies which have achieved high growth rates, as against those which have not, is exactly the same for poorer countries as it is for richer ones. The most important requirement is a competitive export sector, which sucks in talent and investment to where they can be most productively employed, enables a cumulative increase in foreign sales to be accomplished, and thence fuels sustainable high rates of growth in the economy as a whole. It is growth in exports which drives expansion generally, as can easily be seen from the statistics.³⁰⁹ It is countries whose exports, and particularly whose merchandise sales abroad, grow faster than the world average whose economies expand most rapidly, and vice versa. From Chile to South Korea, from Turkey to China, the record is the same.

When using appropriate macro-economic policies to achieve the desired end, therefore, the crucial policy variable to get right is the cost base for internationally tradable goods and services. If this is competitive enough to generate a buoyant export market, it is not too difficult to get a variety of complementary economic policy elements to work successfully. If the cost base is charged out at too

high a rate, however, no supplementary mixture of policies will offset this major obstacle. The inevitable result will be relative, if not absolute stagnation, as scarce talent is concentrated more and more heavily in sectors of the economy which have comparatively little to contribute in terms of competitiveness and growth.

6.

The Arrival of Monetarism

A key thesis in this book is that the performance of the world's economies is driven much more by the policies chosen by their governments than it is by ineluctable historical, political and social forces, over which it is very difficult to exercise any control. It is the framework of ideas within which policy-makers operate – which is the key determinant of how well or badly the economies for which they are responsible will perform.

The reason why most western economies are growing so much more slowly than many of those along the Pacific Rim is not the result of inevitable fate but because the West chose economic priorities in the 1970s and 1980s which caused this to happen. The reason why the EU has grown so slowly since the 1970s is that a succession of decisions were taken to try to lock the currencies of European states together, culminating in the establishment of the Eurozone, which tipped many of the constituent economies into a semi-permanent state of deflation. The reason why growth in the USA has been so much slower than it has been in China is that policy decisions have been taken which have left the US cost base for a wide range of manufacturing far higher than it has been, and still is, in China. There were no immovable historical forces that made it inevitable that the UK should deindustrialise to the extent it has. It happened because the UK allowed its exchange rate to become far too high from the 1980s onwards for most industrial investment, especially in medium and low-tech manufacturing, to be profitable.

It is not a coincidence that most of these trends began to pick up speed in about 1980, when monetarism supplanted Keynesian policies in nearly all western countries, but particularly in the UK

and the USA, as powerful leaders, such as Margaret Thatcher (1925-2013) in the UK and Ronald Reagan (1911-2004) in the USA, drove the new policy regime forward. The reason why this happened is that inflation became such a problem in the 1970s, for which Keynesianism and conventional demand management did not have a satisfactory answer. It was then possible to persuade large numbers of people that getting price increases down was the top economic priority, to which everything else should be subordinated. The hard money approach which monetarism entailed was a policy which could be expected to appeal much more to the traditional right of centre than to the left, but such was the momentum behind it that in the UK it was Labour which was caught up in monetarist fervour as much as the Conservatives.

It was Jim Callaghan (1912-2005), as Prime Minister, who told the Labour Party Conference in 1976, in classic monetarist terms, that:

‘We used to think that you could spend your way out of a recession and increase employment by cutting taxes and boosting government spending. I tell you in all candour that that option no longer exists and in so far as it ever did exist, it only worked on each occasion since the war by injecting a bigger dose of inflation into the economy, followed by a higher level of unemployment as the next step. Higher inflation followed by higher unemployment.’³¹⁰

This analysis of events, however, was based on the assumption that there were no other ways of increasing demand other than reducing taxes and increasing government spending. It ignored the fact that there were policies available which could both deal with the immediate crisis and which would not necessarily lead to either higher inflation or more unemployment in the future. These were to have demand led not by consumption but by exports and investment – a policy approach which the British authorities had for years failed to exercise.

In fact, what happened in the UK was that the implementation of monetarist policies involved a drastic increase in interest rates – with Bank of England base rate peaking at just over 15% in October 1981 and staying relatively high for a long time thereafter.³¹¹ Monetarist and neoliberal policies, far from promoting exports or

investment, then led over the next 40 years to the sterling exchange rate being so high that the UK – far from enjoying an investment and export led boom – deindustrialised to an extent unmatched anywhere else in the world. Manufacturing as a proportion of UK GDP fell from just under one third as late as 1970 to less than 10% now.³¹²

The consequences have involved a familiar litany. The UK's former industrial heartlands have been left with not nearly enough to sell to the rest of the world to enable them to pay their way. The collapse of manufacturing has been mainly responsible for the huge imbalances in productivity which now exist between London and rest of the country. With the UK having an increasingly large trade deficit on manufactures – now running at almost £100bn per year³¹³ – a large balance of payments deficits of roughly equal magnitude³¹⁴ have been the inevitable outcome. We have nothing else to sell abroad on the required scale to fill the gap. Our foreign payments deficit has been financed by borrowing and the net sale of UK assets on another scale unmatched anywhere else in the world, as we have allowed foreign interests to buy control over larger and larger areas of our economy. A further consequence is that government and household borrowing has soared because balance of payments deficits suck demand out of the economy which, to stop it declining because of lack of demand, has to be replaced very largely by government, businesses and consumers spending more than their incomes. Borrowing then rises much faster than GDP, which of course is exactly what has happened.

Could these hugely disadvantageous outcomes have been avoided? There were alternatives, but none of them were seized. Although it is understandable that, in the inflationary conditions of the 1970s, very high priority needed to be given to containing very rapid price rises and bringing them down, there were other ways of getting this done than those which were in fact employed. There certainly was a need to break the spiral of expectations as wage increases chased price rises which in turn justified more wage increases. International experience, however, showed that a combination of exhortation and the creation of a consensus that inflation had to be beaten, combined with the avoidance of

excessive demand, was as effective as huge interest rate increases in moderating inflation, which fell back everywhere in the developed world. Countries such as Germany and Norway not only experienced much lower inflation rates than the UK, they also took much more care than the UK did to maintain their competitiveness. Whereas the UK's real effective exchange rate, measured by relative unit labour costs, rose from an index number of 76.4 in 1977 to 131.8 in 1981 – a rise of 72.% – in Germany there was a 22% fall over the same period of 85.3 to 66.6 and in Norway a fall of 16% from 106.0 to 88.6.³¹⁵ No wonder that UK manufacturing struggled to compete and our share of world trade plunged from 6.7% in 1970 to 2.5% by 2017,³¹⁶ dragging the performance of the whole economy down with it.

What could the UK have done instead? There were real possibilities. There was a key opportunity, in particular, to take advantage of the mid-1970s sterling crisis. The value of sterling fell to a low of \$1.59³¹⁷ in October 1976 before the implementation of monetarist remedies pushed the rate up by to a high of \$2.41 in September 1980.³¹⁸ If this strengthening of the currency had been avoided, and between 1975 and now we had maintained the parity of sterling a third lower than we actually did, our recent economic history would have been completely different. How much different? If the export and investment led boom which a truly competitive exchange rate would then have made possible had been maintained, the economy would almost certainly have grown on average at least 1% per annum faster than was actually the case. As a result, we would then have been 40% better off by 2019 than we actually were. If we had grown 2% per annum faster, our GDP per head would, by 2019, have been almost twice as high as it actually was. Impossible? Far from it. These are the sorts of growth rates which, over the same period, were achieved by Norway, South Korea and Singapore, let alone China³¹⁹ – because they have kept their economies competitive.

Why was this opportunity passed up? Why did policy-makers, especially in the UK, and particularly from the mid-1970s onwards, adopt economic strategies which were so damaging and counter-productive? The answer is that several different pressures came

together to push policy development in the direction it took.

First, in the 1970s, there clearly was a major inflationary problem which needed solving, from which the UK suffered more acutely than most. Monetarism claimed to have an answer and the plausibility of its remedies beguiled a political elite which, for a variety of reasons, had begun to lose confidence in itself. This switch to new policy allegiances was buttressed by the ineffectiveness of those trying to defend the Keynesian approach. As traditional demand management proved ineffective, they had no plausible way put forward to tackle stagflation – the combination of high unemployment and rapidly rising prices – which was the hallmark of the 1970s. Nor did they help their case – most famously in a letter written to *The Times* in 1981 and signed by 364 economists – by under-estimating the capacity of the subsequent relaxation of monetary targets to generate a relatively strong – if temporary – recovery from the highly deflationary 1981 budget in fiscal terms presented by Geoffrey Howe (1926-2015), the Chancellor of the Exchequer at the time.³²⁰

Second, the UK has had a long stable history which had been heavily shaped by the Industrial Revolution but which had also seen the country's industrial lead eroded away by international competition, leaving business generally, and manufacturing in particular, with a tarnished social image. Making and selling never attracted much social prestige. By and large, the most able people did not go into industry. Finance, the professions, and the media were more attractive options, and the social ambiance thus created tended to generate a conservative attitude to economic policy. Monetarist ideas thus fell on fertile ground in an economy which was already more financialised than most others. There was a large and powerful constituency of people who had a natural sympathy with the hard money approach which monetarism exemplified.

Third, there was no fresh and powerful set of ideas in play to compete with monetarism. The consensus on economic policy, which had served the western world so well in the 1950s and 1960s had lost credibility. There might have been a drive to emulate the policies which had led to the high growth which the UK had

achieved in the 1930s after leaving the Gold Standard in 1931, but this did not happen. Instead, the exchange rate was simply ignored as a policy instrument by those in charge of economic strategy. It was an article of faith among monetarists – despite ample evidence to the contrary – that exchange rates were set by market forces against which any government was powerless to act. Any efforts to achieve greater competitiveness by lowering the parity would, they believed – albeit with no empirical evidence to support this view – be eroded away by a consequent increase in inflation.

The result of rejecting the alternative policy which would have been possible – particularly in 1976 – is that the UK is much poorer than it needs to have been. We have invested a small fraction of what we might have done in our future compared to what should have happened. Our growth rate has sunk down and, because of this, the real incomes of most of the UK population have stagnated or fallen. We have cut back drastically on many policies which promote social cohesion. We have chronic balance of payments and borrowing problems. We have regional, inter-generational, income and wealth disparities which are putting our country at increasing social and political, as well as economic, strain. All this has happened at a time when many costs – on climate change, health and social care, education and training – are set to rise steeply.

We need to do better than this and it is surely possible for us to do so. In the meantime, we turn to how events have unfolded across the world, but particularly in the UK, since the 1970s.

Slow growth in Europe

During the period from its establishment in 1958 until 1973, the average annual rate of growth among the Common Market countries was 5.1%, the mean level of unemployment was little more than 2%, and the average rate of inflation was 3.9%. For the 20 years from 1973 to 1993, the growth rate averaged 2.1% as inflation fell back. Unemployment fluctuated, but at often not far sort of 10% which was an almost fivefold increase on the immediate post-war years,³²¹ it was much higher than it had been previously. Even then,

this claimant count measure substantially underestimates the total number of people who would have liked to work if they had had the opportunity to do so at a reasonable wage.³²² What went wrong? If the whole world had plunged to a much lower growth rate after 1973, it would be plausible to argue that the experience of the western world was part of a universal trend. Although there was a fall elsewhere, it was much smaller than in the West. The growth rate in the whole of the rest of the world dropped from 5.1% in 1959-1973 to 3.4% between 1973 and 1992 and then averaged 3.5% per annum from 1992 to 2017.³²³

Three major developments were mainly responsible for the substantial sea-change to the fortunes of the Community economies since the 1970s. The first was the oil crisis, caused by OPEC's quadrupling of the price of crude oil, following the breakdown of the Bretton Woods system and the 1973 Yom Kippur War. The second was the change in intellectual fashion towards a much harder-line version of economic theory and doctrine as monetarist ideas replaced Keynesian thinking among large sections of those responsible for running economic policy in the Community countries. The third was the political initiatives taken within the Community, intended to lead to closer integration by linking the currencies of the constituent economies together first in the Snake, then the Exchange Rate Mechanism (ERM), and finally with full Monetary Union.

The effect of the quadrupling of oil prices in 1974³²⁴ on the economies of Europe, none of which at that time was producing any significant quantity of oil, was to shift about 2% of their GDPs away from their own populations to those of the oil exporting countries. With good management and a well-coordinated response, this should not have been an impossibly difficult situation to contain. The problem was that the oil shock came on top of other causes of instability, including, in some countries, a crisis in the banking system as the early 1970s boom broke, and in all countries the main strain was taken on the balance of payments. The result was that everyone reined in at once, trying to shift the trade balance problems elsewhere. Growth rates fell back sharply as deflationary policies were implemented everywhere. Indeed, the economies

then comprising the Common Market collectively saw no growth in either 1974 or 1975, before resuming a much slower growth trajectory than had previously prevailed.³²⁵

If the real-world events of the oil price hike and the breaking boom were the immediate causes of the deflationary policies which checked Community growth in the mid-1970s, the willingness of the authorities to persevere with them was greatly reinforced by the spread of monetarist doctrines. This second change in direction occurred largely in response to the pressing need to bring inflation down from the dangerous heights to which it had risen in some countries during the mid-1970s. Britain's year on year inflation peaked at 24%, France's at 14%, Italy's at 19%, and Germany's under a much more modest 7%.³²⁶

Monetarist ideas had a particularly strong appeal in certain powerful quarters. The Bundesbank had always had a strong anti-inflation tradition, harking back to the German hyperinflation of 1923, buttressed by Austrian views on the merits of hard money. Understandably, it welcomed ideas which reinforced its collective view of monetary priorities. Nearly all Europe's central bankers followed the highly respected Bundesbank's lead. As monetarist ideas also became very much the fashion in academic circles, these convictions were reflected in the tone of an endless succession of newspaper articles, popularising monetarist ideas – and their neo-liberal derivatives – to a wider audience. Despite their intellectual weaknesses, which were apparent from the beginning, monetarist ideas were extraordinarily successful in implanting themselves right across western Europe as the norm which few people were willing to challenge.

The third and perhaps the most significant long-term influence on Community policies, however, has been the drive to achieve further integration by locking the Community currencies together and thus losing the flexibility which exchange rate changes provide when competitiveness diverged. The first steps were taken a little over ten years after the Common Market had been established. In March 1970, the Council of Ministers set up a high-level group to prepare plans for full economic and monetary union, rather than just a customs union, among the original six member countries.

The chairman was Pierre Werner (1913-2002), then Prime Minister and Minister of Finance of Luxembourg, who gave his name to the report which was produced within a few months. The report concentrated on the two principal routes which might be chosen to achieve the convergence required to make monetary union a viable proposition. This involved an uneasy marriage of Keynesian and monetarist approaches. Nevertheless, in March 1971 the Council of Ministers accepted the broad thrust of the Werner Report and agreed that, as a first step towards its implementation, the exchange rates of the member currencies should be maintained within 0.6% of each other from 15th June 1971 onwards.

The start date for the Werner proposals came at an awkward time, although this was not an excuse for their subsequent abandonment. In May 1971 the dollar crisis began, leading to the break-up of Bretton Woods at the Smithsonian Conference in August that year, and abandonment of the existing IMF exchange rate bands. Major fluctuations in the European rates meant that the new narrow bands, for what came to be called the Snake, were difficult to establish. A European Monetary Cooperation Fund was set up, operated by the central banks, to keep market rates within 1.125% either side of the central parities. In view of their impending Community membership, Britain, Denmark and Eire joined the new arrangements, as well as the original six.

The life of the Snake was, however, relatively brief. Speculative fever in the international money markets switched from the dollar, after its Smithsonian devaluation, to attacking sterling. Within six weeks of joining, the British authorities were forced to abandon attempts to maintain the agreed parity for the pound, which dropped out of the Snake, taking the Irish punt with it. Six months later, in January 1973, the Italian government abandoned its commitment to keeping the lira within the required limits and withdrew. A year afterwards, in January 1974, the French followed suit. The franc re-joined the Snake in July 1975, but the second attempt to keep to the agreed parity lasted no longer than the first. In March 1976 it left permanently. In less than four years, therefore, three of the four major Community currencies had abandoned their efforts to keep up with the stability and low

inflation rate of the Deutsche Mark. The Snake had been reduced to a Deutsche Mark zone embracing, apart from Germany, only the Benelux countries and Denmark. This first major attempt to bring together all the Community currencies had failed. Phase two of the Werner plan, the originally proposed move to monetary union, was quietly forgotten.³²⁷

It might have been thought that lessons would be learnt from this experience, so that similar problems could be avoided in future. It was not a convincing explanation for the failure of the Snake to say that its demise occurred because the time at which its regime was introduced was difficult and turbulent. If the Snake was worth having at all, it ought to have been more useful in times of stress than in easier conditions. The political pressures for resuming attempts to lock Community currencies together, however, proved stronger than the arguments from experience. At the initiative of the Commission's President, Roy (subsequent Lord) Jenkins (1920-2003), within three years, at Summit Meetings in Copenhagen and Bremen, monetary union was back again at the top of the Community agenda.³²⁸

The main argument put forward for monetary union on this occasion was that the full benefits of the Community's customs union could not be achieved in an environment of exchange rate instability and uncertainty. It was alleged that fluctuating rates were damaging to trade and steady economic growth. While this may have seemed an appealing argument, there was no evidence that it was correct. Indeed, a number of studies, including a particularly extensive one carried out by the Bank of England, had shown that any disruption caused by exchange rate movements had little, if any, effect on growth rates, incidentally reconfirmed by a recent World Trade Organisation study.³²⁹ The fact that the Common Market countries had been growing up to then at unprecedented rates without having their currencies locked together was ignored. It was also alleged that floating exchange rates were inherently inflationary. Again, however, no concrete evidence was produced to show that this argument was well-founded and, as demonstrated elsewhere in this book, there is ample evidence to show that in most cases it is false.

Nevertheless, in 1979, the Snake was reborn as the Exchange Rate Mechanism (ERM), as part of a new European Monetary System (EMS).³³⁰ When it began operations in March 1979, the new EMS had at its disposal a substantially more potent battery of weapons to deploy against the markets than were available at the time of the Snake.

The first phase had two main objectives. The primary task was to achieve a high degree of stability in the exchange rates of the participating currencies. The second was to secure convergence in the performance of the constituent economies. Both proved difficult to achieve. In the decade following its inception, there were twelve realignments of one or more of the central rates, caused by widely different experience with inflation and competitiveness among the constituent economies. Over this period, the central rate of the strongest currency, the Deutsche Mark, appreciated by 18%, while the weakest, the lira, fell by 29%. The combined impact of these changes was that the parity of the lira at the end of the decade vis à vis the Deutsche Mark was 50% of its value at the beginning. The effect of the ERM was not to stop exchange rate changes occurring, but merely – at great cost – to delay them. Nor was any greater success achieved on convergence. Living standards across the whole Community did not become significantly more equal, although the Irish economy, with a standard of living initially well below the EEC average, grew considerably more rapidly than the rest. Nor did variables such as inflation rates come together. For example, in 1981, the CPI increased by 6% in Germany, 13% in France and 18% in Italy.³³¹

These variations in inflation rates showed the basic problem with the Snake and ERM, which was that for nearly all the period in which they were in operation, Germany's low price increases and consequent export competitiveness made it extremely difficult for the other countries in the exchange rate systems to remain able to compete with the Germans. As their trade balances deteriorated, they were faced with the familiar choice of deflation or devaluation. With the latter being ruled out, except in extreme circumstances, they had to deflate. As about half of all Germany's exports went to other Community countries during the ERM period,³³² the

consequence was that its main export markets were depressed, pulling down the German growth rate. As a result, the whole of the Community's economy slowed down. Table 6.1 shows the figures. Against a long-term background of falling growth rates, each time the Community currencies were locked together, the performance of all the participating countries deteriorated – more quickly in the period of the Snake, and more slowly under the ERM – an ominous portent for the Single Currency were proposals for its implementation to be realised.³³³

And, indeed, notwithstanding these problems, further moves were afoot to proceed to full monetary union. The drafters of the 1986 Single European Act had succeeded in having the achievement of monetary union embodied in the Treaty in which the Act was incorporated as a specific commitment, with a target date of 1992. In 1988, Jacques Delors (b1925), the then President of the EU Commission, persuaded the Council of Ministers to give him the task of 'studying and proposing concrete stages leading towards economic and monetary union'. While these proposals were being considered, and embodied in the 1992 Maastricht Treaty, which set out the programme for moves to a single European currency, the ERM began to run into serious difficulties. During the summer of 1992, market pressure began to attack the weaker members, leading to the devaluation of the lira. In September 1992 a wave of speculation against sterling swept the pound out of the ERM. The franc's parity with the Deutsche Mark only just survived as a result of massive intervention by the Bundesbank. Finally, the pressure built up against the whole ERM system to a point where it became no longer possible to hold it together. In August 1993, the narrow bands were abandoned, and fluctuations of up to 15% either side of the central rate against the ECU were allowed to take their place. Meanwhile, notwithstanding these developments and, indeed, largely to counter them, preparations went ahead for full monetary union. Nothing had been learnt about the dangers of attempting to maintain exchange rates at what could easily become inappropriate levels, plunging the EEC and then the EU into decades of deflation and slow growth.

Table 6.1: Growth in the EEC during the Snake and Exchange Rate Mechanism (ERM) periods

Year	Totals all countries except Germany		Germany alone		Totals all countries including Germany		Comments on growth rates
	GDP in 1985 US\$	annual % growth	GDP in 1985 US\$	annual % Growth	GDP in 1985 US	Annual % growth	
1966	664		377		1,041		
1967	700	5.4	376	-0.3	1,076	3.4	1950-69 average
1968	737	5.3	396	5.5	1,133	5.3	5.5%
1969	785	6.6	426	7.5	1,211	6.9	Snake
1970	827	5.4	447	5.0	1,274	5.3	Snake period
1971	856	3.5	461	3.1	1,317	3.3	Snake average
1972	888	3.7	481	4.3	1,368	3.9	Snake 3.7%
1973	940	5.8	504	4.8	1,443	5.5	Snake
1974	974	3.7	505	0.2	1,479	2.5	Snake
1975	963	-1.1	498	-1.3	1,461	-1.2	Snake
1976	1,014	5.3	525	5.3	1,539	5.3	
1977	1,046	3.1	540	2.8	1,586	3.0	1976-1979 average
1978	1,070	2.4	556	3.0	1,626	2.6	3.6%
1979	1,123	4.9	579	4.2	1,703	4.7	ERM
1980	1,041	-7.3	585	1.0	1,627	-4.5	ERM
1981	1,157	11.1	586	0.1	1,743	7.1	ERM
1982	1,170	1.2	580	-0.9	1,751	0.5	ERM
1983	1,182	1.0	590	1.8	1,772	1.2	ERM average
1984	1,209	2.3	607	2.8	1,816	2.5	ERM
1985	1,236	2.2	619	2.0	1,855	2.2	ERM
1986	1,268	2.6	634	2.3	1,906	2.5	ERM
1987	1,298	2.3	643	1.5	1,941	2.1	ERM
1988	1,349	3.9	667	3.7	2,016	3.9	ERM
1989	1,395	3.5	691	3.6	2,087	3.5	ERM
1990	1,432	2.6	731	5.7	2,163	3.7	ERM
1991	1,449	1.2	764	4.5	2,213	2.3	ERM
1992	1,467	1.3	776	1.6	2,243	1.4	ERM
1993	1,459	-0.6	761	-1.9	2,220	-1.0	ERM
1994	1,483	1.6	782	2.8	2,265	2.0	
1995	1,522	2.6	792	1.2	2,313	2.1	1993-1997 average
1996	1,546	1.6	802	1.3	2,348	1.5	2.0%
1997	1,584	2.4	820	2.2	2,403	2.4	

Sources: Table 7 on pages 120 and 121 in *National Accounts 1960-1992*. Paris, OECD, 1994 and Table 0101 in *Eurostatistics 11/95 and 4/00*. Luxembourg: The European Community, 1995 and 1999.

Neoliberal policies in the USA

In the USA, the problems to be faced towards the end of the twentieth century were significantly different from those in most of Europe, although the intellectual background to the way they were tackled had much in common.

Compared to many other countries, the USA weathered the 1970s reasonably well. Years of small reductions in output in 1970, 1974 and 1975 were offset by substantial growth in other years, producing erratic but, nevertheless, in the circumstances of the time, a tolerably satisfactory outcome. Real GDP growth averaged 3.2% per annum for the decade, a little below the 3.8% average for all the developed countries in the OECD.³³⁴ The reduction in the

dollar's post-Smithsonian parity, augmented by the USA's better than average performance on inflation, gave those parts of the American economy exposed to international trade an increasing edge. As a result, exports of goods and services, net of inflation, rose cumulatively by 7.3% per annum, compared to total imports which only increased at a compound rate of 4.9%.³³⁵

However, this reasonably good performance was eventually undermined by adverse movements in the US trade balance, caused mainly by a combination of increases in both the cost and volume of imports. In particular, during the 1970s, the price of oil rose hugely, with a major price increase in 1979 following an earlier one in 1973.³³⁶ By 1980, the USA was spending \$79bn a year on oil imports, compared with only \$3bn in 1970.³³⁷ As a result, combined with much larger imports of other goods such as cars, the balance of trade in goods and services began an alarming deterioration. In the late 1970s, the rapid increase in the value of imports, especially oil, began to swamp the deteriorating surplus earned on manufactures. From 1976 onwards, the USA has had a trade deficit every single year.³³⁸

To maintain a reasonably strong rate of growth in the 1980s, the USA therefore urgently needed a considerably more competitive exchange rate. By increasing the country's exports of manufactured goods, it would have been possible to offset the heavy burden across the exchanges occasioned by the extra cost of oil imports. Unfortunately, exactly the opposite policy was put into operation. Under the incoming administration of President Ronald Reagan, heavily influenced by monetarist ideas, interest rates were raised sharply. The US Treasury Bills rate, which had fallen to just under 5% during the boom years of the late 1970s, averaged over 14% in 1981.³³⁹ The inevitable result was that the dollar soared on the foreign exchanges. With 1973 equalling 100 as the base, and thus already allowing for the 10% post-Smithsonian devaluation, the trade weighted value of the US dollar had fallen to 89 by 1979. This trend was then dramatically reversed – a classic example, incidentally, of the ability of policy decisions to change the exchange rate. By 1982 the index had reached 108, and by 1985 it was 123. In six years, the dollar had sustained a real appreciation of 38%.³⁴⁰ As a result, the

USA's growth in GDP during the 1980s fell back to a cumulative 2.8% per annum. Because the population was growing fast, GDP per head grew at only 1.8% per annum.³⁴¹

Predictably, the proportion of US GDP derived from manufacturing fell heavily. Between 1980 and 1993, it dropped from 21% of GDP to 17%, a relative reduction of just under a fifth.³⁴² The number of people employed in manufacturing occupations also fell slightly in absolute numbers, but much more steeply as a proportion of the total labour force. Of those in employment, the proportion working in manufacturing dropped from 22% to barely 16%.³⁴³ The problem was then the familiar one, which is that productivity increases are much more difficult to secure across the board in the service sector of the economy than they are in manufacturing. The decline in industrial output as a proportion of GDP thus contributed directly and heavily to the low growth in overall productivity which was such a key negative characteristic of this period in American economic history. Reflecting the decline in manufacturing, and the incidence of the policies pursued by the Reagan and Bush administrations on the growth rate, both the US savings and investment ratios fell heavily too, dropping from about 20% in 1980 to under 15% by 1993.³⁴⁴

Between 1980 and 1993, the first full year of the Clinton presidency, the economy grew cumulatively by 2.7% per annum, and GDP per head rose on average by 1.4% a year,³⁴⁵ yet none of these benefits worked their way through to the average worker in terms of compensation per hour. On the contrary, across the board average earnings per hour fell. For the whole American economy, in real terms, income per hour peaked in 1973, at \$8.55 measured in constant 1982 dollars. By 1998 it was only \$7.75. Thus, over the 25 years between 1973 and 1998, earnings per hour for the average American dropped in real terms by a staggering 9%,³⁴⁶ a trend which continued into the twenty-first century. Against the background of the steady rise in real earnings per hour in the US economy in the 1950s and 1960s of a little under 2% per annum – about 18% per decade³⁴⁷ – who, predicting a fall in 1973 for the next almost half a century, would have been given a hearing?

The decline in real hourly earnings, barely offset by a higher

labour force participation rate and longer working hours, and aggravated by a tougher line being taken on social security payments, caused the distribution of pre-tax income to become much more uneven. Up to 1980, the proportion of aggregate income going to the bottom 40% of income earners had been roughly stable at about 17%. By 1993 it was 14%. For the bottom quintile, the drop was even more precipitate, from 5.3% to 4.1%, making the whole of this vast swathe of the American population – well over 50m people – about 8% worse off on average in 1993 than they had been in 1980.³⁴⁸ Meanwhile, at the other end of the spectrum, those in the top 5% of income earners saw their share of total incomes rise between 1980 and 1993 from 15% of the total to 20%.³⁴⁹ As a result, their total incomes increased in real terms by about two-thirds.

Post-tax, the distribution of income became even more uneven as tax rates on the rich were cut. The theory behind this was that the government revenues ought to increase if tax rates were lowered, both because there would be less incentive for avoidance and because lower tax rates would stimulate more enterprise and hence more revenues. The ‘Laffer Curve’ approach to tax policy, which claimed that reducing tax rates would increase the total amount of tax collected³⁵⁰ – one of the more egregious elements of the ‘Supply Side’ economic policies fashionable at the time – never came near improving the overall federal collection rate. It certainly served its purpose, however, in justifying lower tax payments rates for the rich. The result was one of the reasons why the US fiscal deficit began to widen.

The other major reason for the deterioration in the federal government’s finances was a vast increase on defence outlays. The result was that the overall government’s fiscal stance, including both federal and state levels, which had been \$34bn in surplus in 1979, plunged into deficit, reaching a negative \$109bn by 1983. Hardly surprisingly, an immediate repercussion from the deterioration in the fiscal balance was a large increase in the value of outstanding federal debt. In 1980, the gross federal debt had been \$906bn, representing 33% of GDP. By 1993, it was \$4,409bn, equivalent to 67% of GDP, and still rising in money terms, though stabilising at that time as a percentage of GDP.³⁵¹

One of the consequences of the heavy increase in military spending during the Reagan years was that a higher proportion of the relatively weakening US industrial base was drawn into defence work, exacerbating problems on the trade balance, which also hugely deteriorated over the same period. By 1980, the total US foreign payment position was still in balance, with the surplus on investment income offsetting a \$19bn deficit on goods and services. From then onwards, however, the position went from bad to worse. By 1984 the trade deficit was \$109bn, and by 1987 it was \$153bn.³⁵² Most of this huge deterioration was the result of a catastrophic turn round in trade in manufactured goods. Even as late as 1980, the USA had a reasonably healthy \$12bn surplus in trade on manufactures, but by 1984 this had turned into a deficit of \$93bn, and \$126bn by 1988.³⁵³

There is an inexorable accounting identity which applies to foreign trade. Any deficit on current account has to be made up by exactly corresponding capital receipts. To pay for the multi-billion-dollar deficits which accumulated, the USA therefore had to become a major net borrower from abroad, and a major net seller of investment assets to foreigners. The result was a drastic change from the USA being by far the world's largest creditor, to being much its biggest debtor. In 1980 the USA's net international investment position was a positive \$392bn. By 1993 it was a negative \$503bn.³⁵⁴

During the middle years of the 1989-1993 George Bush (1924-2018) regime, the economy had faltered, growing by only 1.2% in 1990, and contracting by almost 1% in 1991.³⁵⁵ No doubt this contributed to the Republican defeat in 1992, although by then the economy was starting to pick up again. The position inherited by the new President, Bill Clinton (b1946), therefore brought with it all the structural imbalances which the monetarist era had wrought upon it, combined with considerable room for bouncing back from the shallow depression in 1990 and 1991.

Over the period between the spring of 1993, when the Clinton administration took over, and the end of 1998, there were some positive signs, but not nearly enough to counteract the impact of the Reagan and Bush policies on the American economy. Between 1992 and 1998, the growth rate nevertheless averaged a compound 3.2%

per annum, which was a good deal better than the 2.6% achieved between 1980 and 1992.³⁵⁶ The Clinton record on the federal deficit was also much better than those of his two immediate predecessors. A combination of contained expenditure and rising tax revenues reduced the deficit, which had peaked at \$290bn in 1992, to \$22bn in 1997, with a balanced budget projected for 1999 and subsequent years. The gross federal debt at the end of 1998 was \$5,479bn,³⁵⁷ however, the interest charges on this large sum were an additional drain on the government's current resources.

By far the largest and fundamental problem facing the Clinton administration at the end of this presidency was the foreign payment balance, for which the strengthening of the US currency vis à vis the rest of the world bore a heavy responsibility. The trade weighted value of the dollar rose from an index of 87 in 1992 to 98 in 1998.³⁵⁸ A combination of devaluations in the Far East and the weakening of most of the major currencies in Europe had left the dollar dangerously exposed. The US economy, despite its travails, may still have seemed immensely powerful, but the borrowing required to finance a deficit on this scale was beginning to look daunting. The net investment income from US investments abroad and foreign investments in the USA, which used to buttress the US foreign payments position, turned negative for the first time in 1997.³⁵⁹ The scene had been set for the problems of imbalance to be faced by the US economy once the unsustainable boom of the early 2000s, partly caused by low interest rates to encourage recovery from the turn-of-the-century dot.com debacle, broke in 2008.

The Tiger economies

A remarkable phenomenon in the second half of the twentieth century was the growth rates achieved by the so-called Tiger economies – Hong Kong, Singapore, South Korea and Taiwan. Table 6.2 on page 162 sets out the cumulative growth rates they achieved, their increases in population and the rises in GDP per head – a close proxy for living standards – which they managed to secure for their populations.

A number of key points stand out from these statistics. First, the

rapid growth which all these economies achieved towards the end of the twentieth century was not a new phenomenon. All of them were growing fast from the period starting immediately after the disruption caused by World War II abated. Second, although there was some slowdown in their growth rates after the mid-1970s, it was comparatively modest. This contrasts with the sudden break from relatively fast growth to a consistently much slower pace among the advanced industrialised economies, including, a little later elsewhere, Japan. Whatever caused these major countries to grow more slowly evidently did not have proportionately the same effect on the Tiger economies. Third – a rather different point – as they became very much better off than they had been previously, they continued to grow fast. It is often alleged that economic growth becomes much more difficult to achieve the higher the level of GDP per head. This was not true of the Tigers, and if they avoided this happening, it is not clear why other economies should not be able to do the same.

The major reason why the performance of the Tiger economies was not greatly noticed until the last quarter of the twentieth century is that, even as late as 1973, their combined GDPs only represented 1.2% of world output. By 1990, this ratio had more than doubled to 2.7%.³⁶⁰ Even more impressive was the impact of these four economies on world trade. In 1973 their total manufactured exports (including re-exports in the cases of Hong Kong and Singapore) were 3.8% of the world total. By 1994, they were 12.9%.³⁶¹ Over one-eighth of world trade in manufactured products was being achieved by four countries containing, in total, only 1.4% of the world's population.³⁶²

It is this astonishing export achievement which provides the immediate explanation of the success of the Tigers. Between 1950 and 1992, the volume of South Korea's merchandise exports rose cumulatively by 17% per annum, while Taiwan's rose by 16%, compared to 8.5% for the world as a whole.³⁶³ The competitiveness of their exports made their products extremely attractive to buyers all over the world. The opportunities this created, as always happens in similar circumstances, pulled talent and resources into sectors of the economy where they could be most productively

employed. Hardly surprisingly, all the Tiger economies, with the huge investment opportunities which fast growth opened up, had high proportions of their national incomes devoted to investment, generally averaging 30% or more.³⁶⁴ As a result, industrial output soared, and with it productivity. In South Korea, for example, between 1968 and 1997, industrial output increased cumulatively by an average of 13.4% per annum, while productivity in these sectors of the South Korean economy rose by 8.3% a year.³⁶⁵ Nor was it just the Tiger economies which were following this pattern. In 1970, 4% of manufacturing output was in East Asia. By 1995 it was 11%, while over the same period the proportion in the industrialised countries fell from 88% to 80%.³⁶⁶ In 1994, 43% of South Korea's GDP came from industry and 38% of GDP was used for gross domestic investment,³⁶⁷ roughly twice the ratios for the USA and the UK at the time.

The reason why the Tiger economies were able to begin their very rapid growth rates was because each of them, for a variety of reasons, found themselves in the same situation as the other fast-growing economies after the recovery period following World War II. Each had a highly competitive export sector, from which all else flowed. This is not to deny that hard work, discipline, access to world markets, good primary education, reasonably competent government, and all the other characteristics of most successful economies, were not important to the Tiger economies, because, of course, they were. The overwhelming significance of the export competitiveness factor, however, was that it provided an environment where all the other positive characteristics of the Tiger economies could flourish and be used to best advantage.

In a number of key respects, the rapid growth which they achieved also made it much easier for them to accomplish a number of other social and political objectives which most people would think were desirable. Unemployment rates were very low throughout the period, with all the benefits this brings. Jobs were readily available for anyone who wanted to work. The dependency ratio – that is the ratio between number of people not working, and therefore reliant on the value added of others who were – was relatively low, which kept down the need for high levels of government taxation and

expenditure. Money spent on education and training was seldom wasted, as most people who went through courses to improve their skills could easily find jobs where they could use them thereafter. The impact of rapid growth on the distribution of income was also different from what is frequently supposed.

Much has been said about the supposedly inexorable rise in inequality that has taken place since the 1980s, but this was not generally the Tiger Economy experience, at least until the twenty-first century, on anything like the scale then beginning to be seen in the West and later more widely throughout the world. It is also often thought that fast growth leads to incomes becoming more widely dispersed but, again, this is not what the figures always show. The fast-growing Asian economies generally had more, not less, even distributions of income than is common in western industrialised economies. If the pre-tax per capita income of the top decile is taken as a ratio of that of the bottom two deciles, studies carried out around 1970 showed the ratio to be 7.6 for South Korea, 7.5 for Japan, 10.5 for Germany and the Netherlands and 14.9 for the USA. Only Sweden at 8.1 and Britain at 9.1 got close to the Asian ratios, though Australia came in at 7.2.³⁶⁸ The distribution of income has widened substantially in the West over the last four decades, especially post-tax, and it is now very obviously widening, not least in China, but it stayed roughly constant in most of Asia for much longer than it did in the western world.³⁶⁹

Reflected in the comparatively even distribution of income and low unemployment in the Tiger economies have been other benefits. Almost everyone is literate. Life chances have been reasonably equal, thus helping to reduce social tensions, and to produce more cohesive societies. All of the Tigers have avoided the high crime rates, especially those involving various forms of theft, which have become a problem in the West. They all have low infant mortality rates, high standards of public health and long-life expectancies, generally in the mid-70s.³⁷⁰

Should the Tiger economies therefore become models for the rest of the world to follow? To some extent, the answer may be that they should, but in other respects, unfortunately the figures do not stack up. As with Japan during a similar phase of post-

World War II development, and now China, the problem with the Tiger economies is that they achieved their huge success by cornering more than their fair share of those economic activities which generate high productivity increases, and hence fast rates of economic growth. Their high concentration on industrial output, where rapid increases in output per head are easiest to secure, have been bought partly at the expense of other economies. These particularly included the UK and the USA, and much of continental Europe.

The solution to this problem, however, is not, at least as far as this can be avoided, to slow down the progress of the Tigers. It is to ensure that there is enough demand generally, especially in the western world, for industrial output to flourish in the same way as it has not only in the Tiger economies, but also round much of the rest of the Pacific Rim. To achieve this goal, however, some significant rebalancing as to where manufacturing is concentrated will inevitably be required.

Table 6.2: Growth statistics for the Tiger economies				
Cumulative percentage growth in gross domestic product per annum				
	1913-1950	1950-1973	1973-1990	1990-2010
Hong Kong	n/a	9.2	7.6	4.0
Singapore	n/a	7.8	7.4	6.8
South Korea	1.7	7.6	8.5	5.3
Taiwan	2.7	9.3	8.0	5.1
Cumulative Percentage Growth in Population per annum				
	1913-1950	1950-1973	1973-1990	1990-2010
Hong Kong	n/a	3.5	1.8	0.1
Singapore	n/a	2.8	2.0	2.3
South Korea	1.9	2.2	1.4	0.1
Taiwan	2.7	3.0	1.6	0.1
Cumulative Percentage Growth in GDP per Head of the Population				
	1913-1950	1950-1973	1973-1990	1990-2010
Hong Kong	n/a	5.7	5.8	3.9
Singapore	n/a	5.0	5.4	4.5
South Korea	-0.2	5.4	7.1	5.2
Taiwan	0.0	6.3	6.4	5.0

Sources: Tables D-1e and F-4 in *Monitoring the World Economy 1820-1992* by Angus Maddison. Paris: OECD, 1995; Country Table Pages in *International Financial Statistics* Washington DC: IMF 2010 and 2011; and Tables 1-1a and 2-2 in *Taiwan Statistical Yearbook 2011*.

Unmanageable competition

This book argues that the root problem for the whole of the western world is that nearly all of it has for many years been deeply uncompetitive with the East, particularly China and other countries along the Pacific Rim, although there are also serious imbalances more locally within the Eurozone. It is now time to look in detail at this overarching problem. The most compelling evidence is to be found in the increased shares of world trade secured by countries in the East, with corresponding reductions in the West. Table 6.3 below shows the position:

Table 6.3: Shares of world trade in percentages

Country	1970	1985	2000	2015
China	0.5	1.3	3.9	14.1
South Korea	0.2	0.5	2.7	3.2
UK	6.9	5.4	4.4	2.9
USA	15.2	11.7	12.3	9.3
The Industrialised West	73.4	68.3	62.9	59.1
The Emerging East	4.9	11.0	19.9	21.0

Source: Successive editions of *International Financial Statistics Yearbook 1979, 2000, 2004 and 2016*. Washington DC: IMF Various Years.

Sluggish exports in the West have then taken their toll in the form of less stimulus for growth and deflationary problems caused by foreign payment deficits. The inevitable result has been a much more slowly growing GDP. The next table shows the difference in growth rates which materialised, with the poor performance in the West very largely caused by their uncompetitive foreign sectors.

Table 6.4: Ratio increase in the GDP of selected economic areas

Country	1970	1985	2000	2015
China	100	290	915	3,407
Singapore	100	320	1,053	2,135
South Korea	100	367	1,109	1,970
UK	100	134	200	253
USA	100	160	268	349
The Industrialised West	100	161	247	310
The Emerging East	100	176	397	1375

Source: Successive editions of *International Financial Statistics Yearbook*. Washington DC: IMF Various Years; and Table C from *The World Economy: A Millennial Perspective* by Angus Maddison. Paris: OECD, 2001.

We now return to the fact that the cause of these hugely discrepant outcomes is not hard to find. It was the enormous increases in western exchange rates during the monetarist era which were the fundamental reason why this happened. They were caused mainly by the very high interest rates which monetarist policies required, supplemented subsequently, in the UK's case – and that of the USA – by massive net asset sales which both pushed up the pound and the dollar on the foreign exchanges and sustained their high valuations. These developments were then combined with rapidly falling real exchange rates in the East. The graph presented in Figure 2.1 on page 48 highlights what happened between the UK and China, which is a reasonable proxy for the changes which took place between almost the whole of the West and most of the Pacific Rim countries in the East.

The UK economy generally was none too competitive in the 1970s, but the impact of monetarist policies in raising interest rates and constricting – at least initially – the money supply across the period from the late 1970s to the early 1980s was dramatically to worsen the competitive position. Between 1977 and 1981, the UK's real effective exchange rate against all currencies rose by just over 70%.³⁷¹ After dropping back a little, it then stayed roughly constant for the next 15 years, falling about 15% after the UK left the ERM in 1992, before starting another steep rise in the late 1990s.³⁷² This was induced partly by UK interest rates being higher than those prevailing elsewhere,³⁷³ but mainly because of changes in policy which enabled UK assets – particularly shares in existing businesses – to be purchased by foreign interests to a degree which prevailed nowhere else in the world. Between 2000 and 2010, net sales of portfolio assets alone – excluding direct investment in buildings and machinery, which contributed directly to the health of the UK economy – came to £615bn³⁷⁴ – equivalent to about half the UK's annual GDP at the time. The result was a further very large increase in the strength of sterling, peaking in 2008. The rate fell between 2007 and 2009 by about 25% – from roughly \$2.00 to the pound to \$1.50 – but since then, at least up to the 2016 UK EU referendum, the rate slowly climbed back again, before falling after the referendum. In 2009 the IMF real effective exchange rate index

for the UK stood at 93.3. By 2015 it was 114.3, an increase of 22%.³⁷⁵ As of the end of 2016, it was still above where it had been in 2010³⁷⁶ – much too high for most low and medium-tech manufacturing in the UK to be viable.

On the other side of the world in China, the exchange rate regime has been completely different. When China joined the trading world around 1980, both wages and productivity were very low. The Chinese thus initially had a very weak exporting sector but with huge potential if it could be made competitive. This goal was very successfully realised as the yuan was devalued in stages from 1.50 to the US dollar in 1980 to 8.62 by 1994.³⁷⁷ Inflation was higher in China than in the West over this period³⁷⁸ but, nevertheless, the nominal devaluation of the yuan combined with the improvements in the way resources were used, particularly labour, as a result of market disciplines being introduced, led to a dramatic reduction in China's real effective exchange rate. The IMF index fell from 367 in 1980 to 147 in 1987 and then down to 86 – where it bottomed out in 1993.³⁷⁹ As Figure 2.1 (p.48) shows, the real effective exchange rate for China fell by about 70% between 1980 and the mid-1990s, leaving the Chinese in an extraordinarily competitive position. To a lesser extent, much of Asia followed the Chinese example, especially after the 1997 Asian crisis.³⁸⁰

The results were all too predictable. UK manufacturing – and particularly low- and medium-tech activity, which was intrinsically sensitive to international competition – was hit correspondingly hard. It fell as a proportion of GDP from 32% in 1970 to 20% in 1990³⁸¹ as swathes of light industry went to the wall, and by the end of the 2010s, it had fallen to just under 10%.³⁸² The trade surplus on manufactured goods, which the UK had managed to maintain every year after the end of World War II, evaporated in 1983 and there has been a steadily mounting deficit every year since then.³⁸³ The UK's total goods deficit in 2019 was £100bn, of which £86bn was manufactures.³⁸⁴ The last time that the UK had an overall current balance of payments surplus was in 1985.³⁸⁵

In China, by contrast, the position was reversed. Manufacturing as a percentage of GDP remained high. It was 32% in 2000 and was still as much as 30% in 2015.³⁸⁶ Instead of balance of payments

deficits, there were surpluses. There was no need for deflationary austerity policies to contain government deficits. The Chinese economy grew at about 10% per annum while productivity – and living standards – rose at an only slightly lower rate because the population was growing only slowly.³⁸⁷

By 2015, GDP per head in China was 10.6 times what it had been in 1985. In the UK it rose over this same 30-year period by 65% – reflecting roughly similar performance across the western world.³⁸⁸ Chinese GDP per head is still well below what it is in western Europe. It was estimated in 2015 to be \$6,497, compared to \$34,405 on average in the EU³⁸⁹ measured by GDP per head and in 2020 \$20,988 in China compared to \$48,169 in the UK on a Purchasing Power Parity basis.³⁹⁰ However, the Chinese economy, although its rate of growth has slowed during the last two or three years, is still growing much faster than ours, with momentous consequences for our relative positions in the world.

7.

World Imbalances

The period between 2000 and 2008 may very well, in retrospect, turn out to be the last few years during which western economies appeared to be doing reasonably well before the storm to come. On the surface, the USA and Europe's economic performance seemed to be reasonably satisfactory and relatively stable as their economies, helped by rapid rises in the value of housing, recovered from the dot.com boom and bust of the late 1990s. Some of the economies in Europe grew strongly on the strength of low Eurozone interest rates. Consumer price inflation everywhere was low, averaging 2.3% in the USA and 2.1% in Europe.³⁹¹

In many countries, property values, based on historically low interest rates, increased markedly, making everyone who owned property feel richer. Between 2002 and 2007, average house prices rose 90% in the UK and by over 200% between 1997 and 2007 in Ireland. Stock exchanges recovered strongly. In the USA, the Dow Jones Industrial Average almost doubled between 2002 and 2007, with similar increases seen in Europe. The euro, having been originally established in 1998 as its constituent currencies were locked together, and having become the currency in day to day use throughout the Eurozone in 2001, got off to what looked like a good start. Living standards rose too, although averages could be misleading. A very high proportion of increased GDP everywhere, but particularly in the USA, went to the already well-off, leaving those not so fortunately placed on the income scales deriving considerably less benefit from the overall growth rates which remained positive throughout the western world. Between 2000 to 2007, US GDP grew by 17.8% and the EU's by 19.8%. The West, therefore, did not appear to most people to be under serious threat.

This apparently stable state of affairs, however, belied reality in two crucial closely related developments, one internal and the other external. The internal problem was that the prosperity – which was thought by most people to be on a sustainable basis – was in fact largely founded on the creation of a huge amount of debt owed by people living within the western world, some of whom were never creditworthy enough to have taken on the scale of the liabilities with which they encumbered themselves. The external problem was that many, although not all, western countries were running increasingly large external payments deficits. This meant that both their citizens internally and their economies as a whole externally were living beyond their means while at the same time getting cumulatively more in debt to those countries in the world, particularly China, Taiwan, Germany, Holland and Switzerland, which were running large balance of payments surpluses.

As long as those who are advancing credit are reasonably confident that the individuals, companies and countries to which they are lending money are going to be able to pay it back – or at the very least are going to be able to service the interest charges involved – mounting debt may appear to be sustainable. The root problem for the western world was that from 2008 onwards, confidence that this requirement would continue to apply began to evaporate. The first major breach came as it became clear that sub-prime housing debt in the USA was nothing like as secure an asset as had been assumed, notwithstanding the role of the credit rating agencies in claiming that, packaged up into consolidated units, it was. As it became obvious that large number of financial institutions were unsure of the value of the assets they held, inter-bank transactions started to freeze up, culminating in the collapse of Lehman Brothers, a major US investment bank, on 15th September 2008.³⁹² The dangers of contagion spreading were averted, at least for the time being, by a concerted international effort to provide liquidity to the West's major banks, but only at the cost of creating more debt. Furthermore, as confidence in the future drained away, more threats to the banks' balance sheets emerged, not least in the form of property loans in many countries, particularly the USA, the UK, Ireland and Spain, which

it was increasingly clear were no longer covered in value by the assets which secured them.

As western economies began faltering to recover from the big falls in GDP which many of them sustained as a result of the 2008 crisis, new threats began to emerge. In Europe, it became increasingly clear that the Eurozone had major structural faults. Although on the surface these appeared among the weaker economies to be liquidity or solvency problems, the root malaise from which these countries all suffered was a lack of competitiveness. This is a classic exchange rate over-valuation problem of exactly the kind which, within a similar time scale, had sunk the Snake and the ERM. Just as had happened before when attempts had been made to lock EU currencies together, Germany in particular succeeded in containing costs and thus developing increased export competitiveness far more effectively than less disciplined countries; not only Greece, Ireland and Portugal, but also much larger ones such as Spain and Italy, and even Belgium and France. As all the weaker Eurozone members reined in their economies to reduce their deficits and the rate at which they were accumulating debt, Germany's exports faltered because more than half of them went to other EU countries and over a third to other Eurozone economies.³⁹³ Again, exactly as had happened with the Snake and the ERM, the growth rate for the whole of the Single Currency area contracted until, during all the period from 2008 to now, near stagnation had been reached. Meanwhile, the strength of the euro on foreign exchanges, buoyed up by Germany's stellar export performance, made it increasingly difficult for the struggling economies in the south of Europe to compete effectively in world markets. Over the whole of the period between 2000 and 2016, the Italian economy grew by a net total of only 0.5% while GDP per head fell by 3.5%.³⁹⁴

In the USA, different problems materialised, although all related to the same fundamental competitiveness and debt disequilibria which had become the West's hallmark. Mirroring the USA's huge payments deficit, post-2008 there was a massive federal fiscal shortfall combined with falling house prices and high and rising unemployment. Clearly something had to be done about the government deficit but it proved impossible to get any reasonable

agreement about the way ahead which both the Democrats and Republicans could support. While the Democrats were desperate to see measures taken to reflate the flagging economy and to reduce unemployment, the size of the deficit made this appear to be an increasingly dangerous option, mirrored in the USA losing its AAA credit rating from Standard and Poor's in August 2011. At the same time, the Republicans, encouraged by its Tea Party wing, refused to support any tax increases, even those which involved closing loopholes in already agreed tax measures. Buckling under the strain of an increasingly uncertain future, the markets on both sides of the Atlantic took fright at the 2008 crash, although since then, buttressed by huge quantities of Quantitative Easing, there has been a strong recovery in asset prices though not, unfortunately, matched by correspondingly large increases in GDP.

The whole of the western world seemed to be unable to understand and to get a grip on the fundamental reasons for the malaise which had overtaken it. Even before the arrival of Covid-19, which has accentuated all the problems, the future, instead of providing even modest growth would, it increasingly appeared, be one of near stagnation, causing most people – although not those who were already rich – to receive little or no increase in their real incomes year after year. The result was increased social tension and a general drift away of support from traditional centre parties to those offering a more populist range of policies.

Globalisation

Globalisation is by no means a new phenomenon. Measured by the percentages of GDP involved in exports and imports added together, taken as a ratio to GDP as a whole, the history of the UK's exposure to foreign trade is exemplified in Table 7.1.

The UK economy was therefore in 2000 almost exactly as exposed to foreign trade as it was at the end of the nineteenth century. There was a very large drop during the inter-war period and then a slow increase back to pre-World War I conditions up to the period before the 2008 crash, followed by a significant fall. There are, however, important trends within these overall figures which have a heavy

Table 7.1: Ratio of UK exports plus imports to GDP

Year	Ratio
1885	66%
1913	63%
1933	31%
1950	24%
1970	44%
2000	68%
2015	58%

Sources: 1885 to 1970 Table UK.1 in *One Hundred Years of Economic Statistics*. New York: Facts on File, 1989. 2000 and 2015 Successive editions of *International Financial Statistics Yearbook*. Washington DC, IMF, various years.

bearing on the extent to which globalisation may benefit only a minority of the population rather than a large majority of it.

First, the make-up of our exports, as between manufactures, commodities (particularly oil) and services, and whether we have had a foreign payment surplus or deficit, has varied substantially over the last 200 years. Some of these factors have made a lot of difference to who has benefitted and who has lost out from globalisation. Certainly, for all the period from the end of the nineteenth century to the 1980s, except for during the two World Wars, the UK had a substantial export surplus on both manufactured goods and services. This was matched by a large deficit on imports of food, beverages, tobacco, raw materials and – later on – by oil, at least until the advent of sources of supply from the North Sea. Nevertheless, throughout this hundred-year period, the UK, apart from during the World Wars, had a balance of payments surplus most years.

North Sea oil began to have a significant impact on the UK balance of payments in the early 1980s and peaked, contributing 5.2% of GDP to the balance of payments, in 1984 before starting a slow decline.³⁹⁵ Oil revenues, which were treated in the UK as a consumable resource, undoubtedly bore significant responsibility for sterling's strength, particularly in the 1980s – in sharp contrast to what happened in Norway. There, oil revenues were used to buy foreign assets through a huge Wealth Fund, thus providing a strong offset to pushing up the exchange rate. It is a policy which

has served the Norwegians much better than the corresponding stance taken in the UK, which has rightly been accused of frittering away a one-off capital asset on excessive current consumption.

Second, in the nineteenth century the UK roughly broke even on imports and exports of goods and services but had a large net income from abroad. The UK therefore had a substantial current account surplus, enabling us to sustain a constant flow of net investment abroad. Since the 1980s, this position has been reversed and the UK has run an increasingly large trade deficit, financed by selling assets and borrowing from overseas. This development, in turn, has been largely responsible for changing our net income from abroad from being a substantial positive figure to being one which is increasingly negative. The overall balance of payments position has also been worsened recently by increasingly large net transfers abroad in the form of net payments to the European Union and remittances abroad – mainly from migrants and the UK's aid programmes.

Third, freedom of capital movements has made it much easier for serious imbalances to go on being accumulated without remedial action being taken to contain them. In the nineteenth century, the Gold Standard regime had at least some inbuilt tendency for foreign payment imbalances to be offset by higher inflation caused by monetary expansion in countries accumulating gold, with the reverse happening in those that were losing it. Nowadays, with no similar countervailing forces in operation, the huge flows of money looking for a home mean that the pressures on deficit countries are much less than they were. The UK can currently go on borrowing at low real rates of interest, supplemented by net sales of assets, to finance, without difficulty, an adverse foreign payment balance which at times has approached 6% of GDP. Very large imbalances can therefore be sustained for a long time.

Fourth, migration, which took place on a large scale in the nineteenth century, but which slowed down in the twentieth, has recently increased again, made much easier by the falling cost of travel and by relatively liberal policies on free movement, at the same time as both economic and political pressures have tended to make more migration take place. Many of the impacts of migration have been positive but others have caused severe problems. In the nineteenth

century, most migration was to relatively empty countries, such as the USA, Canada and Australia, whereas nowadays much more of it is to countries which are already densely populated.

Fifth, much more of the world is now involved on a major scale with trade and financial liberalisation than was the case a hundred years ago when living standards in areas such as East and South Asia were a small fraction of what they are now.

The impact of globalisation on this scale has undoubtedly had a large number of positive effects for some areas of the world and for some categories of people. Overall, as a result of the spread of industrialisation and the service economies which it has then spawned, the world as a whole is much more prosperous, peaceful, well-fed, clean and healthier than it was a hundred years ago. Millions of people, especially in Asia, have been lifted out of extreme poverty. Over almost all of the world, living standards are much higher than they were, although some have increased much more rapidly than others. International trade has brought opportunities for specialisation which have greatly benefitted some although often at the expense of others. Diversification has made supplies of essentials, such as food, much more secure.

For all its benefits, however, globalisation has also brought substantial problems in train, especially for the countries and regions which have not responded as well as they might have done in the increasingly liberalised international markets which have materialised, because they have had problems competing. This is what has caused deficits which have impacted countries in the West much more than those in the East, with huge global implications.

First, lack of competitiveness in the many countries which have suffered from it has led to relatively slow growth in exports, loss of share in world trade, a knock-on effect on levels of investment, and a negative impact on the profitability and career attractions of light industry – the key to productivity increases. The balance of payments problems thus generated have then caused governments to rein in expenditure to try to avoid their economies running up still further deficits. As we have seen, the overall outcome has been far slower growth in the West than the East. Between 1970 and 2015, the average rate of growth in GDP in the industrialised West was

2.5% whereas in the Emerging and Developing Countries of Asia it was 6.0%.³⁹⁶ This means that over this 45-year period the ratio increase in GDP in the West was 210% compared to 1,275% in Asia. Of course, the East started from a much lower base than the West but the example of countries such as Singapore, with an average growth rate of 5.1% between 2000 and 2015,³⁹⁷ and with a 2019 GDP per head of \$63,987 compared to \$41,030 in the UK,³⁹⁸ shows that countries can go on growing fast as they get richer provided the right policies are pursued.

Second, the major balance of payments deficits which have been sustained by the countries that have had the largest problems competing with the East have led to a vast accumulation of debts which are unlikely ever to be repaid. Even just servicing them may generate increasingly severe problems, especially if interest rates increase from their current very low level. Despite all the efforts being made to stabilise banks, unregulated global debt is still increasing rapidly, partly because financial liberalisation has made it all too easy for finance to be created in secondary markets which are much more difficult to control. The situation has been made much worse by the massive sums of money created by the central authorities – the Fed in the USA, the Bank of England in the UK and the European Central Bank (ECB) in Frankfurt – in the form of Quantitative Easing. It has been used to try to stimulate their flagging economies into more activity, but unfortunately has been more successful at creating asset inflation than sustainable economic growth. The monetary base in the USA increased between 2000 and 2016 by 520% while in the UK it has been much higher still, at a staggering 1,140%. Over this period the increase in money GDP in the USA was 80% and 91% in the UK.³⁹⁹

Third, the combination of trade liberalisation with deeply uncompetitive exchange rates for manufactured goods in much of the West, compared with the East, has led to the western world deindustrialising on a huge scale – to a greater extent in the UK than elsewhere but with a marked tendency for manufacturing as a percentage of GDP to fall right across the western world. To be fair, some of this apparent reduction has been caused by price effects, as manufactured goods have fallen in price compared to

services, and partly because the border line between producing goods and then providing services to look after them has blurred the distinction between the two. Nevertheless, after taking account of both these factors, the reduction in the UK from almost a third of GDP coming from manufacturing in 1970 to just under 10% now is far too marked to be offset by them. Since it is manufacturing – and especially light industry – which more than any other area of the economy, produces increase in output per hour, rising productivity and higher real wages, as well as supplying enough goods to sell to the rest of the world to pay for our imports, the cost of deindustrialisation is very high.

Fourth, the impact of these changes has been very varied for different parts of the country and different people. They have been especially tough for those sections of the population who have lost out by seeing vast numbers of their erstwhile relatively high-quality manufacturing jobs disappearing. Globalisation and liberalisation, by contrast, has undoubtedly brought huge benefits to those working in favoured parts of the service sector, providing the well-educated metropolitan elites – so conspicuous in successful places such as parts of London and some other cities in the UK – with ideal working and living conditions. Because of their ability to function very successfully in this environment, they have managed to accrue to themselves much of what relatively little growth in GDP there has been. The losers, on the other hand, have been those outside these favoured areas, especially those in our former industrial heartlands. They have seen the good blue collar manufacturing jobs, which they and their forebears used to have, disappearing to the Pacific Rim – or to countries like Germany and Holland on the continent with much stronger manufacturing bases than the UK has – too often to be replaced by low productivity, low paid and relatively insecure service sector jobs. Nor is this a problem just confined to individuals. Whole cities and communities in some areas of the UK now simply do not have enough to sell to the rest of the world to support the living standards to which they are accustomed. They then become increasingly dependent on subsidies and grants from government as their environments and services – starved of funds – slowly deteriorate.

There is, in addition, a troubling fundamental issue about the extent to which foreign trade really does increase the welfare of the populations which are subject to it. It is an article of faith among most economists that free trade is an almost unalloyed good in the sense that, although it may create losers, they will always be outnumbered by those whom international specialisation has made better off. Detailed calculations about how big these benefits are compared to conditions in which there is no foreign trade at all, however, show that the total gains from trade may be much smaller than is assumed.

Clearly, there is a widespread preference for imported goods and services compared to those produced domestically, otherwise foreign trade would not take place. The issue, however, is how large these preferences are. Given the most favourable competitive conditions for autarchy, they have been calculated to be in total as low as 1.2% of GDP for the USA, 1.6% for western Europe and 2.5% on average for the world as a whole. With about 30% of world GDP being imports, a total 2.5% benefit to world GDP from foreign trade equates to an average level of preference for imports themselves compared to domestic production being calculated as 2.5% (the benefit to world GDP from foreign trade) divided by 0.3% (the proportion of GDP over which this benefit is spread), which is 8.3%. This seems to be a plausible figure, which is large in aggregate, but which needs to be compared with all the downside costs which globalisation also brings in train. Furthermore, this is not an increase like economic growth which cumulates year upon year. On the contrary, it bears no more than a constant ratio to GDP. This being the position, taking into account all the problems as well as the advantages that foreign trade brings in train, the case for free trade may be much weaker than it is often alleged to be.

Instinctive perceptions that this might be the case may well be partly responsible for the huge political dimension there is to what is now happening as a result of the gap which so clearly exists between those who have benefited the most from globalisation and those who have lost out from it. When the financial crisis hit everyone in 2008, most people turned to their political leaders to find solutions. Nearly ten years later, with perhaps more than

half the population in the UK on no higher real wages than they received a decade ago, while the rich have got richer and the bankers responsible for the 2008 crash almost all got away unscathed, the worm has been turning. The result of the EU referendum in the UK, the election of Donald Trump to the US presidency, and the rise of movements such as the Front National in France, *Alternativ für Deutschland* in Germany, *Podemos* in Spain, the Five Star Movement in Italy and *Syriza* in Greece, all have common roots. Although these movements are different in style and political alignment, all of them are the result of large numbers of people feeling disenfranchised and economically marginalised. Hardly surprisingly, they resent what has happened and they no longer vote for the political leadership which – with some considerable justification – they think has let them down.

The tragedy is that it need not be like this. The reason why globalisation has worked so badly for so many people in the West is not inevitable. It has happened because misaligned exchange rates have allowed the East to become far too competitive compared to the West, thus depriving much too much of the West of industry, growth and hope. This badly needs to change.

International surpluses and deficits

One of the fundamental problems with the world economy at present is that there are trade imbalances which cannot be financed with any reasonable expectation that the debts involved are ever going to be repaid, at least at face value. This situation has arisen – a recurring theme – mainly because most global trade is in manufactured goods and some countries, mainly because they have very competitive exchange rates, have sequestered much more than their fair share of manufacturing capacity, while others – including most western countries – have allowed the reverse conditions to develop. As a result, all the economies with weak manufacturing sectors suffer in varying degrees from chronic balance of payments difficulties. The scale of the problems involved is exhibited both by how large the imbalances are, their current trends, and what is happening to the debts which are accumulating as a result of them.

Table 7.2 sets out the current account balance of payments position of most of the world's major economies in 2016, a fairly typical year, to provide a snapshot of what has been happening. Each country's balance of payments position is made up of four components, these being: the deficit or surplus on trade in goods, trade in services, income and transfers. A very clear picture emerges. There were – and are – some countries with chronic, very large surpluses and others with equally substantial year-after-year deficits. As an accounting identity – another recurrent theme – all current account deficits have in aggregate to be matched by exactly equal and opposite capital movements. Some of these take the form of asset acquisitions in either individual or portfolio form. Much, however, is financed by debt. This is why the enormous country asset and liability imbalances shown in Table 7.3 have been allowed to accumulate.

Table 7.2: Current account balances, selected countries, 2016, ranked in order of overall current account balances. All financial figures are in billions of US dollars unless otherwise indicated

	Overall current account balance in US dollars	Total GDP in local currency	Exchange rate	Total GDP in US dollars	Current account surplus/deficit (-) as % GDP
Germany	297.3	3,144	0.904	3,478	8.5
Mainland China	202.2	74,631	6.760	11,040	1.8
Japan	194.0	537,060	108.0	4,973	3.9
South Korea	78.5	1,637	1.160	1,411	5.6
Netherlands	65.5	703	0.904	778	8.4
Switzerland	63.3	659	0.990	666	9.5
Singapore*	55.0	410	1.380	297	18.5
Italy	47.7	1,681	0.904	1,859	2.6
Russia	24.4	86,044	67.1	1,283	1.9
Spain	23.8	1,119	0.904	1,237	1.9
Greece	0.6	174	0.904	193	0.3
India	-11.7	121,699	67.2	1,811	-0.6
France	-21.4	2,125	0.904	2,351	-0.9
Brazil	-23.5	6,259	3.491	1,793	-1.3
Saudi Arabia*	-23.8	2,424	3.750	646	-3.7
United Kingdom	-154.9	1,865	0.741	2,517	-6.2
United States	-451.7	18,625	1.000	18,625	-2.4

Source: Country tables in *International Financial Statistics Yearbook 2016*. Washington DC: IMF, 2016

Table 7.3: Total assets minus total liabilities, selected countries, ranked in order of net balances to GDP

All figures are in billions of US dollars

Country	Total Assets	Total Liabilities	Net Balance	GDP in local Currency	Exchange Rate	GDP in USD	Ratio Net Assets to GDP
Switzerland	4,476	3,706	770	659	0.99	669	1.15
Singapore	3,150	2,484	666	410	1.38	297	2.24
Japan	8,444	5,565	2,879	537,060	108.00	4,973	0.58
China	6,507	4,557	1,950	74,631	6.76	11,042	0.18
Germany	8,694	6,848	1,846	3,144	0.90	3,478	0.53
Russia	1,233	1,021	212	86,044	67.00	1,284	0.17
India	543	911	-368	121,699	67.20	1,811	-0.20
France	7,050	7,420	-370	2,125	0.90	2,351	-0.16
South Korea	1,244	967	277	1,637,000	1,160.00	1,411	0.20
United Kingdom	13,489	13,596	-107	1,865	0.74	2,517	-0.04
United States	23,849	32,168	-8,319	18,625	1.00	18,625	-0.45
Italy	2,693	2,867	-174	1,681	0.90	1,860	-0.09
Brazil	830	1,413	-583	6,259	3.49	1,793	-0.33
Spain	1,877	2,860	-983	1,119	0.90	1,238	-0.79
Greece	243	499	-256	174	0.90	192	-1.33
Ireland	5,152	5,671	-519	275	0.90	304	-1.71

Source: Country Tables in *International Financial Statistics*. Washington DC: IMF, 2011.

This situation has arisen as a result of foreign payments surpluses and deficits being allowed to continue by the main countries involved for year after year. The sums involved are huge. Between the start of 2000 and the end of 2015, Germany accumulated a balance of payments surplus of 2.7 trillion dollars and China 3.0 trillion. Relatively small countries such as Singapore achieved \$563bn, Switzerland \$785bn and the Netherlands \$1,086bn. Oil producing countries such as Saudi Arabia, with \$1.089bn, added to the surplus total. On the other side were the UK, with an accumulated deficit of \$1,074bn, and the USA with a staggering \$8.43 trillion gap between its foreign income and expenditure during the first decade and a half of the current century.⁴⁰⁰

Since these numbers are so large, it may well be asked how this situation could ever have been allowed to arise. At first sight it seems obvious that there would be great difficulties about repaying such large sums of money or even servicing the interest charges

involved. There are, however, a number of reasons why it was not so obvious that the problems were as serious as they turned out to be and why there were such strong pressures for these huge debts to grow to their current size.

First, both the US dollar and the euro and, to a much lesser extent now, sterling, are all reserve currencies. The US dollar, in particular, is used on a huge scale to finance globalised trade and to facilitate payments throughout the world. Being a reserve currency necessarily involves very large sums being required to be held as working balances both within the banking system and elsewhere, on which little interest is paid. As the world's economy expands, more and bigger balances are required, requiring larger and larger volumes of funding. This therefore provides a rational reason for the creation of debt which trade imbalances facilitate.

Second, although in theory all debts are due at some stage to be repaid, most lenders seldom expect this to happen in the reasonably near future. Nor do they need to be particularly worried as to whether repayment should be possible at any time, at least in individual cases, provided what appears to be a strong covenant and a solvent debtor is involved. This is because creditors do not need to be concerned about the debts owed to them, provided that they can always rely on finding someone else to take over the debts owing to them if asked to do so. As long as markets are deep, liquid and confident in the capacity of debtors generally to meet their obligations, which for a long time had been the case in the West, the risks for each individual creditor, even large ones, appeared low enough for confidence to be maintained.

It is only when the realisation dawns that a significant number of major debtors at the same time are getting past the point where their liabilities are manageable, that the systemic danger of so much debt being accumulated becomes apparent. This situation starts to be reached once it dawns on the markets that the rate at which debt is accumulating and the total interest payments due on it are becoming beyond the capacity of debtors to pay. A big part of the reason why this realisation has been slow to materialise is that, as long as economies are growing, their capacity to service increasing amounts of debt keeps rising. It is when economies stop

growing while their debts are still increasing – which is what has been happening to an increasing extent in recent years – that the line between solvency and insolvency suddenly hoves much more sharply into view.

Third, at least until very recently, it always looked as though at least western sovereign debt – that is debt owed by governments – was so nearly solidly reliable that virtually no risk was involved in holding it. There was always some danger that currencies would depreciate – providing an exchange rate risk that the value of debt denominated in a devaluing currency would be worth less than it was previously in other currencies – but no apparent risk that any developed western sovereign nation would default. As long as each currency had a central bank which, if need be, could create unlimited amounts of money, every sovereign nation could meet its obligations. Furthermore, if the policy of most governments was to avoid depreciation of their currencies if they could possibly escape from doing so, the exchange rate risk appeared also to be kept in bounds. Within the Eurozone, however, the situation is different. Because the Single Currency is managed by the ECB and not by individual countries, the ability of the weaker economies to create whatever funds may be required to meet their obligations no longer exists and this is one of the major reasons why the Eurozone is currently exposed to its current major tensions. A significant risk of sovereign defaults has been allowed to accumulate.

Fourth, if all balance of payments surpluses necessarily involve capital transfers of one sort or another to deficit countries, the huge sums of money involved as the surpluses are generated have to go somewhere and it was not obvious where else much of it could go unless it went into buying deficit countries' debt. Furthermore, if the result, for example, of the Chinese buying US Treasuries was also to provide a way of keeping China's currency and hence its exports highly competitive, by soaking up the funds from its export surplus, this policy clearly has a certain rationale to it. Although there might be a risk that the funds used to buy US Treasuries might never be repaid, except in eventually heavily depreciated dollars, the gain to the Chinese economy in the short

term from the huge boost to its economy from its success as an exporter, based on maintaining its currency undervalued to keep its manufactured output competitive in world markets, is evidently a major offsetting factor.

There have thus been a significant number of factors to persuade the herd instincts of the markets that the accumulation of debt on the scale which has materialised is sustainable. The danger is that, as market sentiment turns and becomes increasingly pessimistic, it precipitates precisely the recessionary conditions which make the world's major debt problems less and less manageable, resulting in just the sort of major financial crisis which it is in everyone's interest to avoid. The way a major crisis may envelop us all will be different in the USA and the UK than in the Eurozone countries, mainly because the EU's Single Currency makes the adjustments required even more difficult to accomplish than would be the case if it did not exist. The danger which is building up at the moment, however, on both sides of the Atlantic – and elsewhere, in countries as diverse as China and the Ukraine – is broadly similar. Debt is building up more rapidly than the capacity of many governments and countries, as well as a significant number of individuals and companies to service and repay it. This trend is unsustainable. It cannot and will not last indefinitely. This is why a fundamental review of economic policy objectives in the West – and elsewhere – is becoming so pressingly urgent.

Europe's Single Currency

The euro was always a political rather than an economic project. The hope was that the establishment of the Single Currency would cause the performance of all the countries using it to converge, although it was never clear why this should happen. The reality, on the contrary, as many people warned at the time, was that the countries which were to make up the Eurozone were too diverse for them to come together, all using the same currency, while retaining a large measure of sovereignty. Experience with the Snake and the ERM had shown that some countries, particularly Germany, had highly entrenched capacities for holding down costs and increasing

export competitiveness in relation to most others in the European Union, especially those in southern Europe.

In the USA, there is a relatively highly mobile labour force, largely speaking a common language and capable of moving to another part of the country to take advantage of changes in economic opportunities. In the EU, with many different languages and other strong ties to home countries, mobility has been much less easy to achieve. Furthermore, in the USA, even though a considerably lower proportion of GDP passes through government hands than the average in Europe, federal disbursements still account for about 20% of GDP.⁴⁰¹ This makes it possible for very substantial transfers to be made from the more to the less prosperous areas of the country. In the EU, no such mechanism exists. The EU's total budget has been capped at no more than 1.23%⁴⁰² of EU GDP, and much of this, involved as it is with the Common Agricultural Policy, does little – if anything – to redistribute income from richer to poorer countries.

Locking the currencies of all the disparate countries making up the Eurozone from the beginning of 1999 – supposedly irrevocably – and replacing all these currencies with the euro from the beginning of 2002 was always, therefore, a high-risk strategy. As has happened with most currency unions in history, however, initially the project got off to a promising start. The introduction of the euro from a technical standpoint was accomplished with commendable smoothness. In the relatively benign conditions which prevailed during the early years of the twenty-first century, the Eurozone did reasonably well. Again, however, as has been the case with all currency unions in the past which did not morph into being unitary states, as time went by, problems of disparate performance and compatibility gradually, and then later more rapidly increased. When the Single Currency had been established, the Germans, having foreseen some of the problems which might ensue, had insisted in 1997 on a Growth and Stability Pact being implemented, which was designed to limit Eurozone country budget deficits to 3% of GDP and total borrowing to 60% of GDP.⁴⁰³ The situation was not helped by the fact that both Germany and France ignored these restrictions early on when it suited them to do so, making it more

difficult to establish any serious commitment to fiscal discipline later on among the more vulnerable Single Currency members.

Some of the problems stemmed from long established features of the constituent economies. Countries such as Greece, Italy and Spain had long histories of higher levels of inflation than Germany and other Nordic economies. Greece clearly joined the Single Currency on the basis of statistics which were wildly optimistic and unrealistic and, by all accounts, known to be so by many people at the time. Others, such as Portugal, were uncompetitive from the beginning. These mismatches were then exacerbated by features intrinsic to the Single Currency concept. If there was only one currency, there could only be one interest rate. This tended to be too high in countries with low inflation rates but much too low in countries where prices were rising strongly. The result was unsustainable property booms, particularly in Spain and Ireland, financed on low interest rates, with the 'feel good' impact of rising property values helping to push up the price level generally.

As always happens, the relatively rapidly rising price levels in the less disciplined countries began increasingly to bite into their capacity to pay their way in the world. All of them began to experience deteriorating balance of payments conditions. Initially, the increased indebtedness which was entailed was relatively easily absorbed by the markets which felt confident that the Single Currency was such a solid project that Greek debt, for example, was as good – or almost as good – as German debt. As late as early 2008, there was almost no interest premium to be paid on non-German euro bonds.⁴⁰⁴ By early 2011, however, the situation had completely changed. Greece was having to pay 12% and Ireland 10% per annum to service new sovereign bond issues. Later in the year, Italy was paying close to 7% while even France was starting to have to pay significantly more than Germany,⁴⁰⁵ these spreads being a harsh but realistic indicator of market sentiment as to the decline of the relative creditworthiness of these different countries over the period.

Initially in Greece, but then subsequently in Ireland and Portugal, it became apparent that all these countries were not going to be able to meet their debt obligations without much more assistance

from other Single Currency members – and others – than had been envisaged. Contagion then began to spread to the much larger economies of Spain and Italy, with Belgium and even France being viewed as economies which might not be able to continue within the Single Currency without very substantial assistance from other Single Currency members. The first bail-out – in the form of special loans on stringent conditions – was for Greece in May 2010, followed by another one for Ireland in November 2010 and a third one for Portugal in April 2011.⁴⁰⁶

The dilemma faced by EU political leaders, particularly Chancellor Angela Merkel, (b. 1954) the German Chancellor, became acute. It was increasingly clear that the Eurozone could not survive indefinitely without massive transfers being made from the stronger economies to the weaker ones. As Germany was much the largest and most robust potential donor, it was obvious that there was no alternative but for the Germans to be the major paymasters. There was, however, huge reluctance in Germany to undertake this open-ended commitment. It was also clear that, if – eventually – major subventions from Germany were to be forthcoming, then there would have to be much tighter oversight of the budgets and economic management of the economies to whom the assistance was to be provided. This was evidently going to involve the imposition of drastic retrenchment on their economies, combined with insistence on wholesale reform of labour markets, pension entitlement and institutional arrangements, for which there was no democratic mandate and to which there was certain to be strong resistance from entrenched interests. Furthermore, these changes were likely to be implemented in heavily deflationary employment and economic conditions, which were bound to increase hostility to any such programmes.

Since the crisis period in the early 2010s, at least until the Covid-19 pandemic struck, the situation in the Eurozone was more quiescent, but at the cost of very little growth and very high levels of unemployment, particularly in the southern countries which have been most-hard hit. Between the beginning of 2009 and the end of 2017, the Eurozone as a whole grew by 5.6% – barely half a percent per year on average. The Spanish economy grew by 1.7%,

but Italy's shrank by 6.4% and Greece by a heartrending 25%.⁴⁰⁷ Over this period, unemployment in the Eurozone averaged 9.8% but 11.9% in Italy, 19.2% in Spain and 23.1% in Greece.⁴⁰⁸ Youth unemployment was much higher. The Eurozone has recently been kept afloat largely as a result of huge Quantitative Easing lines of credit being created by the ECB doing, as its President, Mario Draghi (b 1947), said it would at a conference held in London in July 2012: 'Within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And believe me it will be enough'.⁴⁰⁹ Recent developments have led in a similar direction. In response to the coronavirus crisis, which has hit southern European countries such as Italy and Spain particularly hard, there have been important moves which have strengthened and reinforced the monetary cohesion of the Union. These involved the creation of bonds underwritten mutually by all EU Member States to finance grants and loans totalling €750bn to help to rebuild the weaker economies in the EU. This sum, which is equivalent to nearly 5% of EU GDP, represents a potentially crucial step towards the EU – or at least the Eurozone – becoming a unitary state.⁴¹⁰

It is still far from certain, however, how the monetary tensions within the Eurozone will eventually be resolved. It seems very probable that, despite its problems, there will be sufficient determination among a majority of EU leaders to keep the Eurozone in being in substantially its present form if at all possible. If, as seems likely, there are further attacks on the weaker members by nervous markets, recent developments suggest that the EU may be willing to do sufficient on the financial front to avoid defaults taking place and the Single Currency breaking up. Whether they will be able to achieve this objective indefinitely, however, remains to be seen, not least as Germany's Supreme Court recently ruled against Germany's constitutional right to underwrite euro-bonds.⁴¹¹ A parallel threat is that leaders may be elected to governing positions among Eurozone Member States on platforms which entail abandoning Single Currency membership. This appears to be a scenario which might materialise in any one of several countries currently doing poorly from their presence in the Eurozone, although no effective majorities for doing so have yet materialised.

A major component of the Single Currency's current problems is that, when the Eurozone was established, cross border bank lending was positively encouraged by the EU Commission as a way of promoting growth in those economies with relatively low GDP per head. This lending did increase living standards in the short term in countries such as Spain and Ireland, but only by creating unsustainable property booms. The legacy of encouraging banks in one country to lend in another is very large cross-country bank indebtedness, compounded by existing bad debts caused by large scale unwise property loans and speculation in sub-prime obligations, put a major strain on EU banks' balance sheets. The danger is that if the Eurozone ever did break up, it would leave many European banks insolvent. Since having major banks going into liquidation would certainly plunge the EU economy – and the rest of the world – into a major crisis, the EU states would almost certainly want to avoid bank bankruptcies by refinancing all those in danger of collapse. The problem then, is whether the sovereign states making capacity to do it have the borrowing power to be able to do this, on top of all the other debt commitments they already have.

While it is therefore easy to understand the extreme reluctance of most EU leaders to allow the Single Currency to break up, there are two major dangers in them pursuing the policy which they seem most likely to favour, as long as they have the capacity to do it, which is to keep the Single Currency in being substantially as it is. The first is that this policy does nothing to overcome the root problem among the Eurozone's weaker members. This is not just one of solvency or liquidity. It is fundamentally one of competitiveness. It is therefore an exchange rate and cost base issue, consigning them indefinitely to high unemployment and slow growth. If these economies were able to devalue substantially, there would no doubt be very serious short-term problems to overcome, but the longer-term outlook would be much more favourable – as happened in the case of Argentina, as an interesting example, which may provide some guidance to what could happen in the EU if the Eurozone did ever break up and how much difference this might make to its growth prospects.

While Argentina always retained its own currency, the peso, this was tied supposedly irrevocably to the dollar in 1991 with the deliberate intention of stabilising and disciplining the Argentine economy. Because costs in Argentina still rose much more quickly than in the USA, economic conditions gradually worsened to a point where they became intolerable, leading to Argentina defaulting on its debts early in 2002. The peso then fell in value against the dollar by 70% in four months, causing great hardship temporarily as GDP fell by 11%. The Argentine economy then rapidly recovered, however, growing cumulatively by 9% per annum between 2003 and 2007. By 2010, manufacturing output had doubled from its level in 2002,⁴¹² providing a portent for what might happen in Europe if the Single Currency ever did break up.

The second fundamental problem faced by the EU leaders is that, far from the tensions within the Single Currency remaining bad but getting no worse, the underlying financial position is deteriorating all the time. This is happening partly because every month which goes by, the total amount of debt which one way or another has to be financed goes up as both balance of payments and government deficits continue to accumulate. At the same time, if economic performance within the Eurozone shows no sign of sustained improvement, producing little or no economic growth, the capacity of all the deficit economies to meet their debt obligations will get steadily worse, making eventual defaults potentially more likely.

Of course, the problem of dealing with Single Currency defaults is made hugely much more complicated and difficult – and thus less likely to happen – by the fact that the same currency exists in all Eurozone countries. While most euro denominated debt and contracts could be dealt with by a defaulting country passing a law making all euros within its jurisdiction worth a fraction of those in Germany, but leaving the depreciated euro as legal tender until a new currency could be introduced, there would inevitably be many cases where it was not clear which euro value applied. Sooner or later, however, these problems would have to be confronted and solutions to them found. Many currency unions have failed to last in the past, with the problems involved in breaking up what had

previously thought to be permanent arrangements being somehow or other overcome, generally at the expense of a relatively short-term period of turmoil. History has no examples of currency unions with less than about 15% of their GDPs being under the control of a central authority surviving, which is a far higher percentage than is the case with the Single Currency. It seems almost certain, therefore, that the Eurozone countries will either have to morph into becoming a unified state or that the euro will not survive indefinitely, although it is impossible to predict what timescales might be involved. The EU and its citizens have paid a very high price for clamping down on exchange rate adjustments which have desperately badly needed to take place.

The 2008 financial crisis and austerity

Turning back to the end of 1980s in the UK, by then it had become apparent to almost everyone that the certainties promised by monetarism were not there in practice. Indeed, despite the impact of the policies on the UK economy of the 1979 Conservative government, inflation was actually slightly higher when the Prime Minister, Margaret Thatcher, left office in 1990 than it was when she came to power in 1979.⁴¹³ During the late 1980s, Nigel Lawson (b 1932), the then Chancellor of the Exchequer, switched from controlling the money supply to contain inflation to shadowing the Deutsche Mark to achieve this objective. This was on the grounds that the relatively high exchange rate that this would entail would bear down on inflation – a doctrine favoured by both the Treasury and the Bank of England.⁴¹⁴ M1 and M3, having only recently been the lodestones by which UK economic policy was guided, were abandoned as policy determinants, and largely fell from view. The logical next step was for the UK to join the ERM, and this was achieved in October 1990 by John Major (b1943) who by then had become Chancellor.⁴¹⁵ The exchange rate at which we joined, however, with a central rate of DM2.90 = £1.00 proved to be far too high, tipping the UK into a sharp recession. Unemployment rose to almost 13%⁴¹⁶ and the housing market nosedived.⁴¹⁷

Eventually, the dam broke and despite dire warnings of what the consequences might be, on 16th September 1992, following a final, but abortive, interest rise to 15%, it became apparent that maintaining an exchange rate of anything like DM2.90 to the pound was impossible. Sterling then fell out of the ERM and lost 15% of its value on a trade weighted basis before stabilising.⁴¹⁸ Far from the economy then suffering the promised downturn, however, it rapidly recovered from its ERM induced recession. Inflation dropped from 5.9% in 1991 to 1.6% in 1993,⁴¹⁹ unemployment fell to 5.8% by 1999⁴²⁰ and economic growth, which had been negative from 1990 to 1992, was positive for every year thereafter until 2008.⁴²¹

Having abandoned the ERM, however, the authorities now needed a new central aim for economic policy to guide the economy. This turned out to be aiming to control the CPI directly rather than through any intermediary, and the era of inflation targeting began. In the UK's case, this was to set the target inflation rate at 2% per annum, with policy initially in the hands of the Chancellor but subsequently the Bank of England's Monetary Policy Committee when the Bank was made independent of government by the incoming Labour government in 1997.⁴²² Although inflation targeting was generally welcomed, and it stood the test of time better than the policies for controlling inflation adopted previously, it had serious faults. Its most obvious flaw was that inflation was targeted strictly on the CPI⁴²³ and not on what was happening to asset prices. The CPI remained reasonably close to its average of 2.5%⁴²⁴ throughout the 1990s and 2000s while asset prices gyrated much more erratically.

More fundamentally, however, inflation targeting did nothing to make the economy more competitive and thus to get it to grow faster and in a more sustainable way. Instead it turned out to mask all the underlying imbalances which steadily became more severe, mainly because inflation targeting at 2% tended to involve relatively high interest rates. For this and other reasons, the exchange rate got stronger and stronger, peaking at over \$2.00 to the pound in 2007⁴²⁵ as the City thrived and manufacturing declined, falling between 1990 and the early 2010s from 20% to 10% of GDP.⁴²⁶

Nevertheless, despite the major fluctuations in asset prices round the dot.com boom period at the turn of the century and underlying concern about the increasingly unbalanced state of the economy, informed opinion became more and more convinced that the Great Moderation was here to stay. Major booms and slumps were a thing of the past. Neoliberal ideas became more and more dominant as faith in the market became increasingly entrenched. Buttressed by complex mathematical theorising round such concepts as Rational Expectations and the Efficient Market Hypothesis, most of the academic and financial worlds convinced themselves that the markets knew best, and that liberalisation and deregulation would lead to greater stability as risks were spread more widely. The financial system was essentially self-regulating and disturbances – with only limited help needed from government – would be self-correcting as equilibrium was automatically restored by market pressures.

This complacency was rudely shaken by the crisis which built up in 2007 and reached its climax on 15th September 2008 with the collapse of Lehman Brothers, a major US investment bank.⁴²⁷ Far from being stable, asset prices tumbled. The UK FTSE 100 index fell from 6,732 in May 2008 to 3,530 in March 2009, since then it slowly recovered to just over 7,000 by the end of 2016., before dropping back recently to around 6,000.⁴²⁸ The proximate cause of the 2008 crisis was the highly uncertain value of derivatives, such as sub-prime collateralised debt obligations, triggered by the US housing boom coming off the boil in 2006.⁴²⁹ The total sums actively involved in this sector of the market – at around \$200bn⁴³⁰ – were comparatively small and manageable in relation to the total amount of debt which was outstanding. The real problem was that identifying which mortgages were liable to default proved impossible and, as a result, no-one knew what all the huge bundles of collateralised mortgages – and the mountain of debt which had accumulated round increasingly exotic financial instruments – were really worth. Suddenly all the banks and other financial institutions – including many in the loosely regulated secondary banking market – did not know which organisations were solvent and which were not, including some of the biggest banks in the world.

The underlying case for the 2008 crisis was the huge increase in debt which had built up over the period since the turn of the century. By 2008, the monetary base in the UK was over three times the size it had been in 2000,⁴³¹ although the economy over this period grew in money terms by no more than 43%.⁴³² The capital base on which this huge expansion in debt – highly profitable though it was in a rising market – had expanded much more slowly than the debt which it was supporting. During the peak running up to 2008, some financial institutions, including Lehman Brothers, had debt to equity ratios of in excess of 30. This meant that only a 3% to 4% default rate would wipe out their capital base – essentially what happened to Lehman⁴³³ – and which was at risk of happening to many other banks and financial institutions too.

This was why the solution adopted to counteract the 2008 crash was to flood the financial markets with still more debt, to ensure that financial institutions which were in danger of insolvency were not tipped on a widespread basis into bankruptcy because they became so illiquid that they could not meet their day to day obligations. In the UK, both the Royal Bank of Scotland and Lloyds Bank were only saved by becoming partially nationalised – the latter after a disastrous take-over of HBOS.⁴³⁴ The Quantitative Easing programme, initially undertaken both in the USA and the UK but subsequently also by the ECB, allowed major financial institutions to improve their balance sheet ratios but did only a little to assist the rest of the economy, particularly industry and commerce to which lending had become much more constrained. The total amount of debt created, however, as a result of these programmes, continued to grow. By 2015, the monetary base in the UK was a staggering 12.4 times what it had been in 2000 against growth in money GDP over the same period of no more than 70%.⁴³⁵

The immediate result of the 2008 crisis was the sharpest and deepest downturn in economic performance across the West since the Great Recession in the 1930s – although now overshadowed by the current Covid-19 crisis. GDP fell year on year by 2.8% in the USA but by 4.2% in the UK,⁴³⁶ and by 6.0% between 2008 Q1 and 2009 Q2.⁴³⁷ Both households and the corporate sector pulled in their horns sharply, swinging between them from net borrowing of £8bn

in 2007 to net lending of £105bn in 2009.⁴³⁸ The inevitable result of the downturn was that government borrowing shot up from £41bn in 2007 to £156bn in 2009.⁴³⁹ The main preoccupation of economic policy since then has been to get the government deficit reduced. Table 2.6 (p.51) shows what has happened, providing – for context – the figures for borrowing and lending by the main sectors of the economy since 2000.

The really crucial conclusion to be drawn from these figures – with critical relevance to where we are now with the coronavirus crisis – is how misguided the UK government's policy was from 2010 onwards if it really thought that getting the government deficit down was its main priority and that the policies it pursued would actually achieve this objective. The reality was – and still is – that the only way to get the government deficit down is to reduce substantially the balance of payments deficit. This is because all deficits and surpluses among the main four sectors of the economy – government, households, the corporate sector and the foreign payment balance – have, as an accounting identity, to sum to zero. All borrowing has to be exactly matched by all lending. Given a balance of payments deficit of £100bn a year, there is no way that the government deficit could be brought down to zero unless a combination of the corporate and household sectors borrowed £100bn – a prospect for which there was never the slightest possibility.

Of course, it may still appear that if the government has a deficit, the most sensible way to reduce or eliminate it is to reduce expenditure and to increase taxation, which the government repeatedly said was its aim. This approach, however, entails a fallacy of composition, which is that what might be true for an individual or a company, each of which on its own has an impact on the economy as a whole which is much too small to make any material difference, is in the same position as the government through whose hands goes about 40% of GDP.

The reality is that the net borrowing or lending by the corporate and household sectors and by everyone involved in foreign payments, which is the outcome of millions of individual decisions, therefore leaves the government surplus or deficit as necessarily of equal and opposite value. In these conditions, if the government

tries to reduce its deficit by cutting expenditure or increasing taxation, the result will be that welfare claims on the state will go up and the tax yield will fall and the deficit will tend to stay at about the same size as it was before. The reason why government borrowing has in fact fallen in recent years is mostly nothing to do with what the government has done. As Table 2.6 (p.51) shows, it has happened because households have been saving and lending so much less and businesses have been borrowing more than they did previously, thus more than offsetting the increase in lending from overseas – which in turn mirrors our current account balance of payments deficit.

Suppose, however, that there was a seriously determined government which was prepared to do whatever it took to get its deficit down to zero – ignoring the fact that it had a large foreign payments balance at the starting point. It would cut spending and increase taxation but the borrowing and lending between the four main sectors would still have to sum to zero. The only way to achieve no government borrowing would then be to plunge the economy into such a recession that the foreign payments deficit was brought down to equal the net borrowing/lending balance achieved by the corporate and household sectors.

As a major recession – based on all the evidence from Table 2.6 – would drive these sectors into saving rather than borrowing, the recession would have to be deep enough to get the foreign payments into surplus as imports were cut back sufficiently to make this happen. To achieve such an outcome, the economy would have to shrink massively. Greece, which was forced into this position, exemplifies what would have to occur. Greek money GDP fell 45% from \$354bn in 2008 to \$195bn in 2015⁴⁴⁰ while real GDP, allowing for falling wages and prices, fell by 26% over the same period.⁴⁴¹ No government in the UK, which is not constrained by something like euro membership, as is Greece, is going to contemplate such an outcome.

This is why austerity policies based on cutting expenditure and raising taxation to reduce government deficits make no sense. They are based on a fundamental misconception about how borrowing and lending, and surpluses and deficits within the economy, have to

balance. The reality is that only way to reduce government deficits is to rebalance the economy so as to avoid the balance of payments being in the red, or at least to reduce the foreign payment deficit to a point where government borrowing is reduced to a sustainable level. This might well be to have borrowing as a percentage of GDP no more than the growth rate – taking into account whatever borrowing or lending may be done by the household and corporate sectors. To bring the foreign payment deficit down to the level then required, the economy would have to be competitive enough to make this possible.

These are highly relevant considerations as policy makers turn to dealing with the huge impact which the coronavirus crisis has had on the UK economy. The projections for 2020 produced by the Bank of England and the Treasury involve government borrowing on a scale never seen before in peacetime. With Bank Rate at no more than 0.1% per annum, the interest charges ought to be bearable, particularly if much of their cost is charged to the Bank of England which is owned by the government and the taxpayer. The crucial issues are on the capital not the revenue side. If government borrowing in 2020 comes in at, say, £300bn, who are the corresponding lenders for this vast sum going to be? If the 2008 crisis provides any guide, it will largely be the household sector, but not in full. The danger is that too large a proportion of it falls on lending from abroad, reflecting a mounting foreign payments deficit. If, however, we are going to avoid a debt induced recession, we will need to ensure that demand is not siphoned out of the economy by a ballooning foreign payment deficit. This is why the way to avoid another decade of austerity is to trade our way out of our current difficulties with a much better net trade performance, based on exports, investment and growth.

8.

Competitiveness

The central case which this book sets out is that, for any country, maintaining an exchange rate which enables it to compete successfully in our globalised and liberalised world economy is much more important than is often realised both by economists, politicians, the commentariat and public opinion. Neglecting its importance as a critically significant factor – as has happened particularly strongly in the UK – has been both a puzzlingly counter to common sense and extremely damaging. How and why has this come about, and why is it so important for us to have as much focus on exchange rate policy as we do to managing our fiscal and monetary affairs?

During the period of fixed exchange rates, up to the breakdown of the Bretton Woods system in 1971, the pressure which sterling might be under on the foreign exchanges was a matter of constant preoccupation. Once floating rates came into play, however, as they have done for the last 50 years, interest in the exchange rate evaporated. It became a residual in the UK, blown hither and thither largely by market sentiment, with a general bias towards keeping it as strong as possible, both to bear down on inflation and because substantial sections of the population always favoured a strong pound.

The City has always tended to like a high exchange rate because of the additional leverage it provides in dealing with foreign transactions. The sizable percentage of the population who holiday abroad strongly favour the currency strength which makes vacations overseas seem cheaper and better value for money. Savers have tended to benefit – at least in the short term – from the higher interest rates which tend to be associated

with an over-valued currency. Furthermore, policy makers and public opinion, supported by both the Bank of England and the Treasury, appear firmly to believe – despite the lack of evidence to support their view – that a strong pound bears down on inflation and that loss of output thus caused is a price worth paying for lower price increase.

These reasons have been buttressed by legitimate concerns about whether the value of sterling on the foreign exchanges could really be changed substantially by government policy, the potential inflationary impact of a substantial devaluation, the risk of retaliation, and by worries about whether a lower pound would actually do any good. Instead of investigating and debating these concerns, and balancing any downsides they might have against the advantages to be derived from a more competitive currency, these matters have been almost entirely ignored. The consequence has been that the UK has had no policy for one of the most powerful influences on the performance of the economy for almost all of the last five decades, other than a general proclivity for favouring the pound being high rather than low. The impact of this insouciance – reflecting a lack of appreciation as to what the impact of the exchange rate is on economic performance going back to the beginning of the Industrial Revolution 250 years ago – has been enormous. It has not only been very damaging but unnecessary. Had better knowledge and understanding as to what was involved been part of the conventional wisdom, our economic history could have been very different. In varying degrees this perception applies to the whole of the western world while many of the countries elsewhere, particularly along the Pacific Rim, have taken a contrary view and have prospered as a result well beyond the dreams of what was believed in the West to be possible.

This is why the exchange rate is so important. It is because it has an enormous influence not only on the economic performance of any country which gets it wrong but also because of the huge political implications which follow on. The immediately obvious impact that an over-valued currency has is that the trade balance suffers and that there is a chronic tendency for imports to exceed exports, reflected in a worsening of the government's fiscal position,

both pointing towards the apparent need for deflationary policies. The consequent tendency for the economy to slow down reinforces the tendency for investment in manufacturing industries to fall as the prospect of it being profitable slips away.

As light industry in particular suffers and declines as a percentage of GDP, opportunities for the type of investment – mechanisation, power, and the application of technology which tradable manufacturing pre-eminently provides – melt away, productivity fails to increase and real wages stagnate. Because, in these circumstances, manufacturing struggles to be profitable, it also fails to attract the most talented people to make a career in making and selling products rather than going into financial services, the media, academic life or any of the other occupations which enjoy nowadays a much higher social status than manufacturing industry. Hardly surprisingly, the quality of management then goes down, making a bad situation worse.

These are the immediate economic implications but there are profound political consequences too both externally and internally. As the economy's performance, reflected in its growth rate, weakens in relation to others in the world, its country's status, influence and capacity to secure its future, all diminish. Both hard military power and softer capacity to influence by example decline – and national self-confidence wanes. Internally, slow growth tends to accentuate the tendency for income, wealth and life chances to become more and more unevenly distributed. In a country like the UK, with a long – if now diminished – industrial history, it has produced enormous regional imbalances. Combining trade liberalisation with too high an exchange rate tends to accentuate inequality strongly by favouring those who have done well out of the opportunities which globalisation has produced but at the expense of the large percentage of the population which has done badly out of trade liberalisation as they have seen far too many good manufacturing jobs disappearing to the Far East and elsewhere. The result, as we have seen, is the widespread discontent among those who feel left out, exemplified in the Brexit vote in the UK in June 2016, the election of Donald Trump to the presidency of the USA in November of the same year, and the

increasing voter appeal, power and influence of populist parties all over continental Europe.

So, the exchange rate is not a matter of minor importance, to be left to the markets to determine, with a bit of help from the Bank of England to keep it as high as possible. On the contrary, as a policy instrument, it is as important as fiscal policy is in keeping the government's finances in reasonable order and the economy fully employed. It is a crucial as monetary policy is in determining interest rates and regulating the relationship between borrowers and lenders. The exchange rate is a key metric which has a very large influence on all our commercial and financial relationships with foreign countries, and the more liberalisation there is, the more transactions there are and the more critically important it becomes. For a variety of reasons, most – although not all – of the western world seems to have lost its way. The Eurozone has tied itself into inter-country relationships through the establishment of the Single Currency which have made exchange rate changes impossible within the system, with all the baleful effect described above clearly manifest especially in the weaker Eurozone countries. The USA controls the world's reserve currency, and this plus the sheer size of the US economy make it much more difficult than it would otherwise be to opt an activist exchange rate policy. To a large extent, however, the UK suffers from none of these constraints. This may provide us with a unique opportunity.

Key points in history recapitulated

Looking back on the UK's economic history, it is obvious just how important the prevailing preconceptions about monetary policy have been in shaping the way in which events have unfolded, especially since the Industrial Revolution began and trade began to depend on manufactured goods rather than on commodities or raw materials. This switch made a huge difference. Whereas sellers of commodities and raw materials are up against world prices set by supply and demand, and are therefore price-takers, those selling manufactures are much more inclined to be price-makers. This is because they are dealing in more variegated products, usually with

both close substitutes and significant economies of scale in their production, with all the scope this provides for battling for increased sales and using price competitiveness to gain market share.

At the start of the nineteenth century, Britain was indeed the Workshop of the World. For many decades, the UK led the world in industrialisation, with manufactured exports exceeding imports by a wide margin. The British economy never achieved a significant overall visible trade surplus during the whole of the nineteenth century, however, because of the scale of its imports of food and raw materials. The statistics from the early part of the century are relatively sparse and incomplete but by about 1870, when more reliable figures become available, the UK clearly had a significant overall deficit in goods offset by a substantial surplus on both export of services, such as shipping and insurance, and on net income from investments overseas. The figures for 1885, for example, show visible exports of £272m against imports of £341m, a deficit of £69m, while services contributed £91m in exports compared to £29m in imports, a surplus of £62m. Within these totals, exports of manufactures were £188m against imports of £59m, providing a healthy overall surplus in manufactured goods of £129m.⁴⁴² With net income from abroad running at £70m, there was a £62m⁴⁴³ net overall surplus which was invested abroad. The UK had an overall balance of payments surplus along these lines each year throughout almost all of the nineteenth century, enabling a continuous accumulation of net assets overseas.

While the performance of the UK economy during this period was, therefore, in many ways impressive, its weakness was the slow-down in its growth rate, compared to its competitors, becoming more apparent as decades went by. Having been the fastest growing major economy in Europe between 1820 and 1870, as Table 8.1 below shows, Britain was the slowest – apart from France – between 1870 and 1913.

What went wrong was that British exports, although they started from a relatively high level, as a result of our Industrial Revolution first mover advantage, grew relatively slowly throughout the nineteenth century as other countries' share of world trade grew at our expense. The fundamental reason why this happened was the

Table 8.1: Ratio increases in GDP 1820-1913 in selected western countries

	1820-1870	1870-1913
France	1.27	1.63
Germany	2.01	2.83
Italy	1.24	1.94
Netherlands	1.70	2.16
UK	2.05	1.90
West Europe Average	1.71	2.14
USA	4.20	3.94

Source: Table A1-e, page 187, in *The World Economy: A Millennial Perspective* by Angus Maddison: Paris, OECD, 2001

familiar process which occurs when any economy has a relatively high exchange rate compared with its competitors. Exporting was relatively difficult and unprofitable, investment was discouraged, management talent went to other economic activities and the growth rate slowed up.

The reason why the UK was in this position is that, for the reasons described in chapter three, the UK did not begin the Industrial Revolution with a particularly competitive exchange rate. This position was then made substantially worse by the outcome of the *High Price of Gold Bullion Report*, produced at the end of the Napoleonic Wars, which locked the UK into a still less competitive value for the pound. This in turn got subsumed into the Gold Standard regime as the nineteenth century wore on, making it in practice impossible to change to a more competitive level, even if the desire to do so had been present, which it was not. On the contrary, the abolition of duties by the UK at the same time as our competitors were raising tariffs against our exports effectively amounted to a revaluation of sterling – making UK sales abroad more difficult and importing more profitable. As a result of these policies, whereas in 1850 GP per head was about half in the rest of western Europe what it was in the UK, by the outbreak of World War I this gap had narrowed to about a quarter.⁴⁴⁴

World War I was hugely disruptive to the pre-war roughly competitive equilibrium. Between 1914 and 1920, the price level in the UK trebled⁴⁴⁵ compared to a little more than doubling

in the USA.⁴⁴⁶ Notwithstanding this, the Cunliffe Committee recommended that the pre-war parity of \$4.86 to the pound should be re-established. The consequent downward pressure on wages and prices led to the wasted 1920s, during which the British economy stagnated. UK real GDP was actually slightly lower in 1931 than it had been in 1919. The devaluation in 1931, however, made a massive difference. By 1938, the economy had grown by 25% compared to 1931,⁴⁴⁷ although by 1938, all the competitive advantage which had been secured at the beginning of the decade had disappeared. This was the result of devaluations elsewhere with which the British authorities acquiesced without making any effort to maintain the competitive conditions which had made so much difference earlier in the decade.

Inflation in the UK was handled much better during World War II than during World War I, with a rise between 1938 and 1946 of no more than just over 50%,⁴⁴⁸ although the USA did better with an increase of only 40%.⁴⁴⁹ Nevertheless, once again the UK authorities tried to maintain the same exchange rate – £1.00 = \$4.03 – as had prevailed in 1940 at the start of the war when hostilities finished despite the huge extent to which the UK foreign investment position had been weakened during the war, on top of the UK's extra inflation compared to the USA.⁴⁵⁰ This led to the 1949 devaluation to \$2.80, which went a considerable way to resolving the UK's imbalance in its dollar trade but not nearly enough to combat the rising competitiveness of our continental competitors, most of whom also devalued in 1949 – unnecessarily in the light of their rapidly emerging competitiveness – at the same time as the UK.

The next twenty years, between 1950 and 1970, therefore saw the UK once more back in the same condition as had prevailed during the nineteenth century and in even more accentuated form in the 1920s. UK prices were uncompetitive on world markets. The UK's share of world trade gradually decreased – from 11.1% in 1950 to 9.3% in 1960 and 6.9% in 1970.⁴⁵¹ Balance of payments problems added deflation to the lack of stimulus to the economy from export led growth, leading to the economy growing more slowly than those of our competitors. Between 1950 and 1970, the German economy expanded to 3.4 times its 1950 size, France by a factor

of 2.7 and Italy 3.2. The UK achieved a ratio of 1.7 while the USA chalked up 2.1 and Japan 6.3.⁴⁵²

The UK was not, therefore, in the best of shape to weather the problems inflicted on the world when the Bretton Woods system broke up in 1971 and the consequent monetary expansion, accentuated by oil price hikes, led to much higher levels of inflation in the 1970s. It was the monetarist policies adopted by most of the West from the late 1970s onwards to deal with inflation – with almost no regard being paid to their competitiveness consequences – however, which did the real damage. The UK's real exchange rate against all currencies rose between 1977 and 1981 by just over 70% as the UK interest base rate averaged over 15% for the whole of 1980.⁴⁵³ During the next two decades, the proportion of UK GDP coming from manufacturing declined by over a third – from 32% in 1970 to 20% in 1990.⁴⁵⁴ The decline slowed after we came out of the ERM in 1992, triggering a weighted devaluation of about 15%,⁴⁵⁵ but accelerated again as, towards the end of the 1990s, the exchange rate soared once more, rising from an average of about \$1.50 during the first half of the decade to an average of almost \$2.00 to the pound for the mid-2000s.⁴⁵⁶ Price-sensitive tradable manufacturing reeled again as manufacturing as a percentage of GDP halved between 1990 and the early 2010s from 20% to 10%.

As the UK deindustrialised, the UK economy became more and more unbalanced. Physical investment as a percentage of GDP tumbled to less than 13%, compared to a world average of well over 20% and almost 50% in China.⁴⁵⁷ About 45% of UK exports were still manufactures in the late 2010s but, with a visible trade deficit of around £130bn, there was far too few visible exports to provide us with a positive trade balance. A much better performance on services, with an average annual export surplus of about £100bn, left an overall trade deficit of approximately £30bn.⁴⁵⁸ On its own, this might have been manageable but the overall balance of payments figure was much worse, partly as a result of net income from abroad, which had for a long time been in substantial surplus turning heavily negative. Net transfers were also on the rise, reaching £27bn in 2018, all contributing to an unsustainable overall balance of payments deficit peaking at £104bn in 2016⁴⁵⁹ – over 5% of GDP.⁴⁶⁰

As government borrowing in the UK is largely a mirror image of the balance of payments deficit, unsurprisingly this failed to respond to government efforts to bring its deficit down to zero. In 2015 it was still £81bn,⁴⁶¹ buttressed by heavy borrowing by the household sector and, to a lesser extent, by businesses. CPI inflation has been very low but Quantitative Easing and the consequent ultra-low interest rates for those in a position to borrow pushed up asset inflation. Inequality has soared as the prosperous London and South East became an increasingly different place from the North of England and the Midlands. In quite large areas of the UK outside London, living standards were barely half what they were in the South. The UK median wage in 2019 was still barely higher than it had been in 2007.⁴⁶² Hardly surprisingly, the EU referendum vote in June 2016 was seized on by just over half the population as an opportunity to express their anger at policies – not least globalisation – which had been so much to their disadvantage.

These are the problems – all made much more acute by the legacy which we are going to have pick up from Covid-19 – to which we have to find long-term solutions if the UK economy is to provide enough well distributed growth to provide us with a sustainable and successful future.

Changing the Exchange rate

It is one thing to say that the exchange rate for sterling ought to be lower than it is. It is another to say how this could be done. Suppose that the government was convinced that a more competitive exchange rate strategy had to be adopted to rebalance the economy and to make it grow more quickly. What steps would the government then need to take to make sure that this happened?

The first requirement would be for the government to state what its new policy on exchange rate targeting was and to explain to all concerned the rationale behind it. It would be to make it profitable for a sufficient amount of light industry to get re-sited in the UK rather than for the country to rely on imports, so as to bring the proportion of GDP contributed by manufacturing up to about 15%. In parallel with this change, there would have to be major switch

in physical investment in the UK from under 13% to closer to 20%. Especially initially, it would be vital to ensure that a substantial proportion of this extra investment went into the sectors of the economy – principally mechanisation, technology and power – which would produce the largest and quickest returns, but it would also be important to increase social investment – in schools, roads, hospitals, rail and housing – as soon as possible. The overall objectives would be to increase the underlying growth rate of the economy by about 2% per annum and to rebalance the economy to counter its worst regional, inter-generational and socio-economic inequalities.

Although the balance of payments might well have to become increasingly negative for a period while these transitions were taking place – which would help to get the exchange rate down – the objective should be to get the foreign payments deficit reduced within the medium term to a much more manageable level than we have seen recently. The aim should be to get the foreign payments deficit as a percentage of GDP below the growth rate, so that the capacity of the country to service its debts should no longer be allowed to deteriorate year by year. The way this would be done would be by achieving a much better balance on our visible export/import balance, instead of seeing our net trade position tending towards long-term deterioration. A much lower foreign payments shortfall would automatically reduce the government deficit to an annual rate below the growth rate, thus at least stabilising it and then making it possible for total government debt as a percentage of GDP to be slowly reduced.

In these conditions, the government could have a target increase in the growth rate to 3% or 4% per annum, which would allow there to be an increase in real wages as the economy was rebalanced by giving more priority to the regions of the country rather than London and the South East. The stimulus for growth would no longer come primarily from consumer demand but from net exports and investment.

To make all this happen, the government would not only have to announce the exchange rate it wanted to see – probably in the range of \$1.00 and €0.85 to the pound – but it would need to make

clear its determination to keep it within the bounds it had set. The investment required will never take place if it is not clear that the conditions to make it profitable are here to stay, and not allowed to be dissipated as soon as the economy shows strong signs of recovery.

What would the government have to do to make sure that the exchange rate it wanted to see materialised? The size of our current foreign payments deficit and the impossibility of this continuing at its present level indefinitely should enable the government to mobilise a reasonable amount of market sentiment to support its new strategy but, in addition, there are a number of key steps which it could take. It would need to choose some combination of all the following policy options:

Capital receipts

The large current account deficit which we have at present can only exist because it is matched by sale of capital assets and borrowing to finance it. Few people would like to see a rigid system of capital controls reintroduced along the lines which used to exist under the Bretton Woods system but there is still a considerable amount which the government could do to discourage the acquisition of UK assets by foreign interests along the lines used by almost all other countries. We could have a public interest test on foreign take-overs. We could have a tax regime which discouraged the acquisition of UK assets much more strongly than it does at the moment and we could introduce a withholding tax which made it much less attractive for foreign interests to own UK assets. Nearly all countries have policies of this sort in place, and we should follow suit.

Bank of England

Although the Bank of England does not have an exchange rate policy as such, it has generally been inclined to keep sterling as strong as possible. This partly reflects the preference of the City and other sections of the economy, including importers, those going on foreign holidays and pensioners, for a high pound and partly because the Bank has always thought that a strong pound

would bear down on inflation. It would need to have its objectives changed to giving priority to keeping sterling within the new agreed bands and supporting a growth strategy based on net trade and investment rather than borrowing, consumer demand and asset inflation. This would involve no longer supporting sterling as the Bank's default position but, as required, selling it to bring the exchange rate down.

Fiscal and Monetary Policy

Other policy instruments would need to be aligned with the new strategy for the economy. As well as having fiscal and monetary policies in place which were generally compatible with the new approach, it would be essential for financing facilities to be readily available on easy terms for manufacturing industry, to make sure that the required investment was not held up by lack of finance. The pressure on resources generally which these conditions would produce would help to achieve a lower exchange rate. The EU referendum has already brought the exchange rate down from around \$1.55 to \$1.25 and the coronavirus may cause it to fall further without any intervention by the authorities. It is possible also that the outcome of the current Brexit negotiations may put further downward pressure on sterling. An important long-term aim should be no longer to use Quantitative Easing as a way of underpinning the economy. Eventually interest rates need to rise to somewhere closer to where they have been historically, with a small premium over the rate of inflation.

Inflation

Historical evidence shows that devaluations do not generally produce much more inflation than would have occurred in their absence, but it also shows that it is difficult to have a sustained rate of real growth of 3% or 4% per annum with year on year price increase averaging as little as 2% per annum. During the period when European economies were growing at 4.9% per annum after World War II, the average inflation rate was 2.8% per annum. In Japan, during the same period, the economy grew at 9.9% a year while inflation averaged 4.3%. The fear of increased inflation, even

if driven by much faster growth, may nevertheless help to get the exchange rate down.

The key requirement is for the government to have an economic strategy geared to rebalancing the UK economy so that it can be launched onto a sustainable growth trajectory, using the same stimuli as have worked so well in the past in many parts of the world, including our own in all too isolated periods, such as the mid-1930s.

Objections

Many people, even if they were persuaded by the logic of the case for a more competitive exchange rate for sterling, which has been presented in this book, might well be inclined to shy away from trying to implement it because of deeply held suspicions that such a policy would neither be achievable nor would it work even if it could be put into practice. What are these contentions and how can they be countered?

There are six main arguments which are regularly advanced to support these concerns. They are, first, that devaluation always produces extra inflation which may negate in part or in full any gains in competitiveness; second, that devaluation is impossible to combine with an open economy; third, that, if we did devalue, we would run the risk of being met by retaliation which would undermine its potential benefit; fourth, that reducing sterling's parity would make us all correspondingly poorer; fifth, that we have tried devaluation in the past and it does not work; and, sixth, that the UK is no good at manufacturing and that our economy would not therefore respond positively to a lower exchange rate. None of these allegations stands up to close scrutiny and a central part of the case put forward in this book is to understand why this is so.

Devaluation and Inflation

The contention that devaluation always produces a rise in inflation is true in so far as it applies to goods and services which are imported. Price rises here are inevitable and a necessary part of switching demand from foreign to domestic suppliers. It does not,

however, follow that the price level generally will rise more quickly than it would have done without a devaluation, and a wealth of evidence from the dozens of devaluations which have occurred among relatively rich and diversified economies – such as ours – in recent decades shows that in fact lower parities sometimes produce a little more inflation, sometimes a bit less, but most of the time little if any change. This may seem a very surprising result to many people but this is unequivocally what the statistics show, as Table 1.1 on page 26 confirms. Looking at recent examples, when the UK left the ERM in 1992, sterling fell by trade-weighted 15%,⁴⁶³ but inflation fell from 5.9% in 1991 to 1.6% in 1993.⁴⁶⁴ When sterling dropped from about \$2.00 to the pound in 2007 to \$1.50 in 2009, a drop of 25%, the rate of inflation barely flickered,⁴⁶⁵ and what increase there was in 2011 was very largely driven by an increase in commodity prices, which fell away as soon as supply caught up with demand again.⁴⁶⁶

The reason why these are common outcomes is that, while higher import prices push up the price level, several factors to do with a lower parity tend to bring it down. Market interest rates tend to be lower after a devaluation, and so do tax rates. Production runs become longer, bringing down average costs. Investment, especially in the most productive parts of the economy, tends to rise significantly, increasing output per head, reducing costs and producing a wage climate more conducive to keeping income increases in line with productivity growth. Furthermore, as domestic supplies of goods and services become more competitive with those from abroad, demand switches to local sources, negating the need to pay higher import prices even if foreign suppliers reduce their prices to try to retain market share.

For all these reasons, the plain fact is that neither theory nor historical experience, based on a wide range of individual cases, shows evidence of devaluations having any systematic effect on increasing inflation above what it probably would have been anyway. Still less does either theory or practice show that competitive gains from a devaluation tend rapidly to be eroded away by higher inflation, although this is a central tenet of monetarist thinking, which perhaps explains why so many people

believe it to be the case – even though it is not. On the contrary, the longer-term evidence very firmly indicates that economies which have strongly competitive international pricing tend to perform better and better as talent and highly productive investment is attracted to those sectors of the economy most likely to produce rising productivity and increasing competitiveness. This is the environment into which a considerably lower parity needs to draw the UK economy.

Changing the Exchange Rate in an Open Economy

Next, it is frequently contended that the parity of sterling is determined by market forces over which the authorities have little control, so that any policy to change the exchange rate in any direction is bound to fail. Again, historical experience indicates that this proposition cannot be correct as recent Japanese experience confirms. The Japanese, to provide a recent example quoted above, brought the parity of the yen down against the dollar by a third between the beginning of 2013 and the start of 2015⁴⁶⁷ as a result of deliberate policy. Further back, the Plaza Accord, negotiated in 1985, produced a massive change in parities among the major trading nations of the world at the time, causing the dollar, for example, to fall against the yen by just over 50% between 1985 and 1987.⁴⁶⁸

It is of course true that market forces have a major influence on exchange rate parities, but it does not follow from this that the authorities cannot influence the factors which determine what market outcomes are. If the UK pursues policies which make it very easy for foreign interests to buy British assets, for example, this will exert a strong upward pressure on sterling's parity. If the markets think that the Bank of England is going to raise interest rates, this will also push sterling higher. If the Bank evidently wants to help to keep the parity of the pound up by buying sterling and selling dollars, this will have a correspondingly strengthening impact on sterling.

Sooner or later, the parlous state of our balance of payments is also likely to be a major factor. Up to now, the ability of the UK to finance its increasing deficit by selling assets has kept the markets

confident that the rate at which sterling is trading on the foreign exchanges is more or less sustainable. It is far from clear that this confidence will continue indefinitely for two main reasons. One is that the UK may soon have sold so many assets that it may become increasingly difficult to find enough to sell in the future, especially if more safeguards relating to the sale of UK assets are put in place, thus making it more difficult to keep the exchange rate as high as it is at the moment. The second is that every £100bn annual deficit, financed by selling assets with an average gross return of the order of 3%,⁴⁶⁹ adds another £3bn to the underlying deficit every year, as we forfeit the returns we would have had from the assets had we not sold them. The laws of economic gravity can be ignored for a long time but, as Herbert Stein had it – incidentally with balance of payments deficits as a prime example – ‘trends that can’t continue, won’t.’⁴⁷⁰ It may, therefore, very well be the case that in the foreseeable future there will be a change in market sentiment which will bring sterling down to a lower parity with or without the assistance of the authorities. The fall in the value of sterling following the EU referendum in June 2016 showed this happening, although the fall from about \$1.45 to \$1.25 is unfortunately still not enough to precipitate a large-scale industrial revival.

Retaliation

If the UK were to devalue by a sufficient amount – probably about 20% from its current roughly \$1.25 to £1.00 level – to enable the economy to reindustrialise to a point where we could pay our way in the world – is it likely that there would be retaliation from other countries which would negate any benefits in the form of increased competitiveness which the devaluation had secured?

In the first place, it depends on the position from which the devaluing country starts. The curse of foreign payment imbalances begins not with countries like the UK, with massive deficits, but with countries such as Germany, Switzerland and the Netherlands with huge surpluses. In the mid-2010s they were running at almost 8% of GDP in Germany and the Netherlands, and 15% in Switzerland.⁴⁷¹ These surpluses have to be matched by deficits somewhere else in the world economy. Unfortunately, surplus countries are never

under any immediate pressure to reduce the beggar-thy-neighbour impact of their surpluses by revaluing their currencies and this leaves economies such as ours, carrying big deficits, with no alternative but devaluation to get the situation under control. There is thus a very strong principled case for countries, such as the UK, to make for getting sterling to a more competitive level.

In terms of practicalities, the UK has a number of advantages which other countries do not share. We are not in the EU's Single Currency, membership of which would clearly preclude the UK from adopting a policy driven exchange rate strategy. We still have our own central bank and control over our own interest rate and monetary policy. Sterling is not a major world reserve currency like the dollar, making it much easier for us to alter our exchange rate without there being very significant international consequences. The fact that our share of world trade is now so low – at 2.5% in 2017⁴⁷² – means that what happens to sterling has relatively little impact on the rest of the world.

As to recent evidence, the quite major changes in the parity of sterling when the UK left the ERM in 1992 – a trade weighted drop of about 15%⁴⁷³ – and the fall in the rate for sterling against the dollar between 2007 and 2009 – about 25%⁴⁷⁴ – as well as the post-EU referendum drop in sterling's parity and a more recent one triggered by the coronavirus crisis, all engendered no retaliation. All were evidently seen by other countries – the markets and the authorities – as being exchange rate adjustments which were clearly warranted by the state of the UK economy. Against the background of our persistently high foreign exchange deficit, there is no reason why the same could not be made to happen again. If the manifest imbalances in the UK economy are clearly associated with an unsustainably high exchange rate, this should also enable us to overcome any objections from our G7 partners, with whom we have jointly agreed not to indulge in unwarranted competitive devaluations.

Sterling and living standards

It is frequently argued that a devaluation must make us all poorer. This argument tends to take two forms, one of which is manifestly incorrect while the other can relatively easily be counteracted.

The first is that if we reduced the value of the pound by, say, 20%, in world currency terms, we would make ourselves 20% worse off and we would therefore genuinely be poorer by this amount. The fallacy with this argument is that, while it might be well-founded if we did all our shopping in international currencies such as dollars, this is not what UK residents do – except perhaps when they go on holiday. UK citizens pay for almost everything they buy in sterling and it is therefore GDP measured in sterling, not in dollars, which counts. This is reflected in the way in which international accounting is done and this explains why IMF figures do not generally show falls in GDP when countries devalue. On the contrary, they almost invariably show the growth rate rising and GDP increasing in consequence. Since living standards closely approximate to GDP per head, especially over time, if the economy is increasing in size and the population does not change from what it would have been anyway, GDP per head and thus living standards must, as a matter of logic, tend to go up rather than down.

The second potentially more substantial argument is that, if we are going to increase our net trade balance to a point where we are no longer enjoying a standard of living well beyond what we are earning – as we are at the moment – living standards will have to suffer. Relatively speaking, this has to be correct. If we produce more for export, too, there will be less for the home market. Furthermore, if, to get the economy to grow faster, we have to spend a considerably higher proportion of our GDP than we do at the moment on investment, there will again have to be a corresponding reduction in consumption as a percentage of GDP. The crucial question then is whether the economy can be made to grow fast enough to enable both the shift towards exports and investment to be accommodated without living standards falling – and indeed preferably rising. Careful calculations show that this would be possible – provided that a high enough proportion of increased investment goes to the most productive parts of the economy, mostly manufacturing. It can be done.⁴⁷⁵

Past devaluations

Sterling may be too strong now for the good of our manufacturing base, but there is a powerful case to be made that this is no new phenomenon. Controversies over banking prudence and the link between sterling and gold, combined with the dominance of financial interests over those of industry, all stretch back to the beginning of the nineteenth century. Ever since industrialisation in the UK really got under way, too high an exchange rate has almost always hobbled British industry. Although we initially showed the way, other countries have overtaken us as their industrial bases have got stronger and their more competitive currencies have allowed them to secure substantial net trade advantages.

As these other countries have invested more heavily in the future than we have, their output per head has grown more rapidly than ours, their wage climates have been better, and their inflation rates have been lower. As an extreme example, in Switzerland, between 1970 and 2010, the price level rose by 88%. In the UK it increased by 780%. The average annual Swiss inflation rate over these 40 years was 1.6% while in the UK it was 5.6%.⁴⁷⁶ It was against this kind of background that, from time to time, the over-valuation of sterling became so obvious that either the markets or the authorities or both tolerated, engineered or encouraged the parity for sterling to fall. Perhaps it is worth reiterating the oft forgotten fact that sterling's fall by about 25% in 1931 – after near stagnation during the 1920s – enabled the UK economy to have its fastest peacetime spurt of growth ever during the middle of the 1930s – over 4% per annum cumulatively for the four years between 1933 and 1937.⁴⁷⁷

When World War II ended and the continent began to recover from wartime devastation, it soon became apparent that the UK had no chance of maintaining the pre-war dollar parity of \$4.03 to the pound, and sterling was devalued in 1949 to \$2.80.⁴⁷⁸ Higher than average inflation in the UK than elsewhere, and underinvestment in export industries, resulted in a steady trade deterioration in the 1950s and 1960s, culminating in the pound being devalued again in 1967 from \$2.80 to \$2.40.⁴⁷⁹ Once currencies started to fluctuate against each other in the 1970s, following the break-up of the Bretton Woods fixed parity system in 1971,⁴⁸⁰ rapidly rising prices

combined with high interest rates kept sterling much too strong. This was especially so in the early 1980s and later in that decade as the UK entered the ERM, which we left in 1992 with a devaluation of about 15% against all currencies,⁴⁸¹ to escape from a sharp economic downturn. After showing some signs of recovery, the UK economy then became more and more unbalanced as assets sales, starting in the late 1990s on a scale unparalleled anywhere else, pushed sterling up to extremely high levels in the 2000s, reaching \$2.11 at its peak in November 2007.⁴⁸² Its value fell between 2007 and 2009 – although still by not nearly enough to make large scale manufacturing in the UK viable again. Since then it has climbed back a bit and then fallen back but still to a level in real terms which is above where we were in 2009. Meanwhile, in the East, over past decades, exactly the opposite policies were followed as they massively devalued.

The reality is that the UK's exchange rate has been much too strong to allow our industrial base to flourish as it could have done for almost all of the last two centuries. The devaluations that have taken place have made the situation rather better than it otherwise would have been, but they have almost invariably been too little and too late.

Devaluation and the UK response

Finally, it is argued that the UK has no bent for manufacturing and that, even if industry was presented with a much more favourable competitive environment, it would not respond. The reality is that a wide swathe particularly of low and medium-tech manufacturing is uneconomic in the UK at present because the exchange rate, and thus the rate at which our cost base is charged out to the rest of the world, is much too high. It is therefore not surprising that UK business – entirely rationally – shuns these unprofitable opportunities. There is no evidence whatever that, if more favourable conditions prevailed, UK entrepreneurs would not be just as good as those anywhere else in the world at taking advantage of the new opportunities which would then open up.

Is it really plausible that the nation which was the very birthplace of the Industrial Revolution is incapable of running manufacturing

operations successfully, given a reasonably favourable environment? Is there the slightest evidence that the UK lacks entrepreneurial people who would be willing to try their hands at making money out of making and selling, if the right opportunities were there? The problem with the UK, as a manufacturing environment, is that these conditions simply do not exist at the moment because the cost base is charged out to the rest of the world at too high a rate and entrepreneurs rightly then shun investing in ventures which they can see from the beginning have poor prospects of being profitable and successful.

The reason why the UK has allowed manufacturing as a percentage of its GDP to fall from almost one third in 1970 to barely 10% now is obvious. Nearly all our internationally traded low and medium-tech manufacturing has been driven out of business and there is insufficient high-tech industry – also subject to long term threat – to fill the gap. We cannot allow this condition to continue if our economy is to grow at a reasonable rate in future.

There is, however, a significant school of thought which is sceptical about whether this is what we should be aiming to achieve, even if such objectives were attainable. Are there wider arguments, covered in the next chapter, which need to be considered that potentially throw in doubt whether faster growth in GDP and higher living standards are what we ought to be aiming for at all?

9.

Sustainability

Is humanity, despite everything that might be done to stop this happening, heading for inevitable disaster? Are efforts to get productivity, living standards and the growth rate up all a waste of time because they are all self-defeating objectives? And where does the coronavirus crisis fit into this scenario?

There is little doubt that changes in policy which were successful in increasing the rate of economic growth among western economies would increase the pressure on the world's ecology. Extra output would entail the consumption of more raw materials and the production of additional waste. Raising living standards, especially if the world's population goes on rising as fast as is expected, could, unless carefully handled, increase, rather than reduce, the risk of destabilising the world's climate, while more migration, encouraged by rising living standards, could enhance other pressures. Is there, therefore, a convincing case to make that any policy orientated to producing better economic performance, as conventionally measured, is likely to be self-defeating? While this line of attack has always had a vocal constituency, there is a strong case to argue that this is much too pessimistic a view to take. On the contrary, from all major perspectives, this chapter argues that the prospects for producing a sustainable future – and increasing human happiness – are likely to be much better if the developed countries of the world are stable and prosperous than if they are stagnant and financially – and politically – stressed by stagnant growth, with all the social and economic problems that such a scenario brings in train.

There are many global risks which are going to have to be managed over the coming decades. Some of them, such as major

outbreaks of volcanic activity or widespread terrorist attacks, are difficult to forecast and most, on past performance, are not very likely to occur on a world scale, even if they cause serious local disruption. Trying to anticipate them is difficult and, if they do materialise, it seems likely that humanity will find a way of dealing with them. Importantly, the current Covid-19 crisis, although it has affected the whole world, seems unlikely to derail the future of humanity. However disruptive it has been – and its short-term damage has been enormous – it will probably not have a large and long-lasting influence, with its main impact being accelerating trends, such as more home-working, which would have eventually materialised anyway. Either a vaccine or medicines to counteract the virus will almost certainly be found and life will then, after a relatively short period, return to a new normal, not so different from the old one. It may depress the base from which future economic growth takes place but it will not significantly change the trajectory of humanity's future any more than was the case a hundred years ago with Spanish 'flu, which killed far more people – estimates run up to 50 million⁴⁸³ – than Covid-19 ever will.

The reality is that other largescale problems are much more likely to have a long-lasting impact on humanity's future and it is to these that we turn in the following sections. Those which it is generally agreed are likely to be much the most pressing are the availability of sufficient resources of all kinds to support ever rising economic output, the impact on the future of the world, of its still rapidly rising human population and the migration pressures rising from it, and the changes in climate which are forecast to result from mankind's rising living standards.

Before reviewing resource, population, migration and climate issues, however, there is still the question as to whether trying to improve economic performance is a worthy objective at all, even supposing that the problems involved in making this possible could be overcome. Is it the case that more output – at least beyond a minimum level, which is well below what prevails in most of the western world – does not improve happiness and therefore is a goal which it is pointless to pursue? There is now significant literature which shows that, on the vast majority of measures which can be

used, most people do not seem to be much, if any, happier now than they were decades ago when their living standards were substantially lower than they are now.⁴⁸⁴ There are complex reasons for this state of affairs, with incomes relative to those of other people playing a substantially larger role than the absolute levels involved. It may well be the case that, if living standards go on rising, while other things remain broadly equal, limited increases in happiness will generally go on being found. Even if this turns out to be true – which seems likely – there are nevertheless very important exceptions to the happiness thesis which suggest strongly that better economic performance by the developed world would still improve rather than have little influence on human happiness.

First, being unemployed involuntarily is one of the major causes of unhappiness, and so is job insecurity.⁴⁸⁵ If this is the case, running the economy with much lower levels of unemployment and more secure jobs must improve the happiness quotient. Indeed, this may be perhaps the most important way in which economic performance can increase happiness because so many of the other factors which affect people's attitude to life – such as family relationships, community and friends, health, personal freedom and personal values – are not really related closely to levels of income at all.⁴⁸⁶

Second, if the major contribution which the economic world can make to human happiness is to provide satisfying work, there is great danger in allowing conditions of little or no growth to materialise, especially over a long period. This is because low growth is a consequence of lack of manufacturing and the relatively steady and satisfying jobs it provides. More and more people are then employed in services in which productivity and income levels tend to be much more unevenly distributed than they are in manufacturing. Slow growing economies, therefore, tend to be characterised by large segments of the population with stagnant or falling incomes in low value-added, poorly paid insecure and unsatisfying employment. This is why there are good reasons for believing that poor economic performance is very likely to reduce happiness, however measured.

Third, while happiness may not increase with living standards once a reasonable minimum level has been achieved, there are

large numbers of people in the world whose income per head is far below this point. It is one thing not to feel more content with life when your income goes up but when you nevertheless always have enough to eat, when you or the state provide you with remedies for any illness from which you may suffer, and when you have somewhere tolerable to live. It is quite another to eke out life in severe poverty. Both within western societies and among the Third World, which depends heavily on the West for economic support, there are very large numbers of people whose condition very obviously would be improved by higher living standards.

Fourth, while it may well be true that having more and more material goods does not make people happier, there can be little doubt that most people still have an urge to buy more goods and services than they did before, given the opportunity to do so. Frustrating their capacity to do this may not have the dire effects on their individual personal well-being that might be anticipated, but it may well have collective disadvantages if a sense of overall failure and degeneration overcomes the whole of the society in which they live.

Those who claim that increasing living standards beyond a certain point do not generally increase human happiness may well be right, but this is not an argument against making sure that economic policy contributes to contentment where it can.

Population

Arguably, the greatest threat of all to the sustainability of human existence on earth is the number of people alive increasing to a point which puts completely intolerable strains on the earth's resources. This situation is certainly likely to be made worse if it is accompanied – as it almost certainly would be – by widespread determination everywhere to increase living standards in parallel to the rise in the total number of people to be accommodated. There are therefore very pressing arguments for creating conditions which ensure that the total number of human beings plateaus at a manageable number. What sort of policies are most likely to achieve this objective?

At the turn of the twenty-first century, the world's population was 6.1bn, up from 2.5bn in 1950. By 2020, it was 7.8bn. The number of people alive more than doubled during the last fifty years of the last century. The peak rise in percentage terms was in 1964 – at 2.2%. Since then, the rate of increase has steadily declined, standing at 1.1% in 2000 and expected to go on slowly dropping. The absolute number of people added to the world's population – 93m – reached its peak in 1988, falling to 79m in 2000 with a continuing downwards trend. Nevertheless, the number of people on earth is still increasing at the rate of about 220,000 per day, although there are wide variations in fecundity between different parts of the world.⁴⁸⁷

There are two major reasons why the population has grown so fast over the last hundred years, compared to previous experience. One is the fall in mortality among young age groups, particularly children up to about five years old. The other is that the average age to which those who survive are living is much higher than used to be the case. Average life expectancy in the developed countries is now about 80 years – and 67 years on average for the world as a whole.⁴⁸⁸ Before the industrial revolution, average life expectancy at birth was seldom higher than 30 years anywhere in the world, and generally closer to an average of about 24. During the Black Death in Europe, which, during the fourteenth century, killed off about a third of the population, it fell as low as 18. As late as 1930, life expectancy in China was only 24 years. It is now 70. Significant widespread improvements in the probability of survival date back anywhere only to the nineteenth century and have been especially impressive since the end of World War II.⁴⁸⁹

While mortality has fallen dramatically across all age groups, the reduction in fertility needed to bring the rate of increase in population down to manageable proportions has taken considerably longer to materialise. In the early 1950s, women in developing countries gave birth to an average of more than six children – compared to an average of 3.1 today.⁴⁹⁰ The reason why the rate of increase in the population in developing countries – compared with those in the developed world – is still so high is that the steps taken to reduce mortality have turned out to be much easier to introduce than the changes in attitude and perception needed to reduce the number of children

which parents decide that they want to have. It has been relatively easy and cheap to eradicate disease-carrying insects and rodents, to chlorinate drinking water, to carry out vaccination programmes and to introduce drugs and dietary supplements, combined with better personal hygiene and rehydration therapy to reduce infant mortality. Changes in gender roles, attitudes towards authority, sexual norms and perceptions of advantage, leading to lower planned births, have been found to be much more difficult to influence.

High fertility and low mortality produce a young population which, as it moves into child-bearing age, generates a further increase in children being born. The momentum thus generated means that, even if replacement level fertility was achieved today in fast growing population areas, there would still be big increases in the number of people to be accommodated because of the age structure. Nor are these the only major consequence of changes to fertility and mortality. In many countries, the dependency ratio – which is the ratio between those outside the normal working ages and those within them – is much higher than it used to be, generating major new redistributive problems. In countries with very high birth rates, such as much of sub-Saharan Africa, almost 45% of the entire population is under 15 years old. In the developed world, by contrast, there are now far more people aged over 65 than there have ever been before as a proportion of the population. It was about 18% in 2011 with this percentage expected to be on a steadily rising trend to 24% in 2050.⁴⁹¹

With all these caveats in place, what can now be said about future population trends? The starting point is the work done by the United Nations – whose Population Division produces a biennial report with updated projections for the world as a whole and for each individual country. The current projections run to 2100 with varying population estimates, depending on different assumptions, for each country produced at intervals between now and then. The projections are centred round what is known as the Medium Variant, which is the demographers' best estimate of future trends. There have then been Low and High Variants, which are essentially the product of varying assumptions about the lower and upper probable bands of fertility.

The Medium Variant estimate in the 2019 Revision for the world's population in 2050 is 9.7bn. The rate at which the world's population is increasing – currently at 81m a year – is continuing to fall slowly, but variations in the rate at which this happens make a big difference to the total population projections in the future. The Low Variant world total figure for 2050 is 8.7bn and the High Variant 10.8bn, compared to the 7.7bn people alive on earth in 2019. The Medium Variant thus implies an increase in population between 2019 and 2050 of 26%, the Low Variant 13% and the High Variant 40%.⁴⁹²

Clearly, since these very large differences are mostly the product of different fertility rate projections, what actually happens to fertility trends over the decades to 2050 is going to be of crucial importance to the world's future. Not all of the increase in population, however, is expected to be due to increased births. A significant proportion of it will be the result of people living longer. By 2050, the less developed regions are expected to attain a life expectancy of 75 years, whereas in the more developed countries the projected level is 82 years, implying that the gap between the two groups will narrow significantly. Globally, on using the Medium Variant projections, the number of people over 60 years old is expected to rise from 231m in 2000 to just over 2.1bn by 2050, while those over 80 increase from 37m to 435m. In the developed world in 2050, for every child, there are likely to be two people over 60 – comprising about one third of the total population.⁴⁹³

This age transition, which is caused by the interaction of changes in fertility, mortality and migration, represents a shift from a very young population in which there are slightly more males than females, to an older population in which there are more females than males. This shift represents a powerful force for social, economic and political change. At ages 75 and over, two-thirds of the people alive in the USA are women, in comparison to Pakistan where the reverse is true, largely due to the low status of women there and their correspondingly poor life expectancy, though the trend is moving in the other direction.⁴⁹⁴

Obviously, there is not an unlimited number of people which the earth can support. A view therefore has to be taken about the extent

to which the world's population can expand before one or other aspect of the world's carrying capacity is exhausted. Opinions on exact numbers may differ but it is clear that even the lower end of the UN projections for 2050 must be pushing towards a tolerable limit. Beyond that, to have the population as much as 40% larger than it is at the moment – which would happen if current fertility rates continued largely unchecked, reflecting the High Variant projections – and still rising by the middle of the current century, would be to put the future manifestly at risk. Generally speaking, it must be the case that the smaller the population that the world has to sustain as the number of human beings plateaus or peaks, the more likely it is that humanity as a whole will have a sustainable future. What then can be done to keep the population increase down as low as is feasibly possible? Not surprisingly, the mixture of policies which looks most likely to be successful is complex, not least because fertility – the key variable factor – is fundamentally the aggregate of millions of individual decisions which are private and which can therefore only indirectly be addressed by public policy.

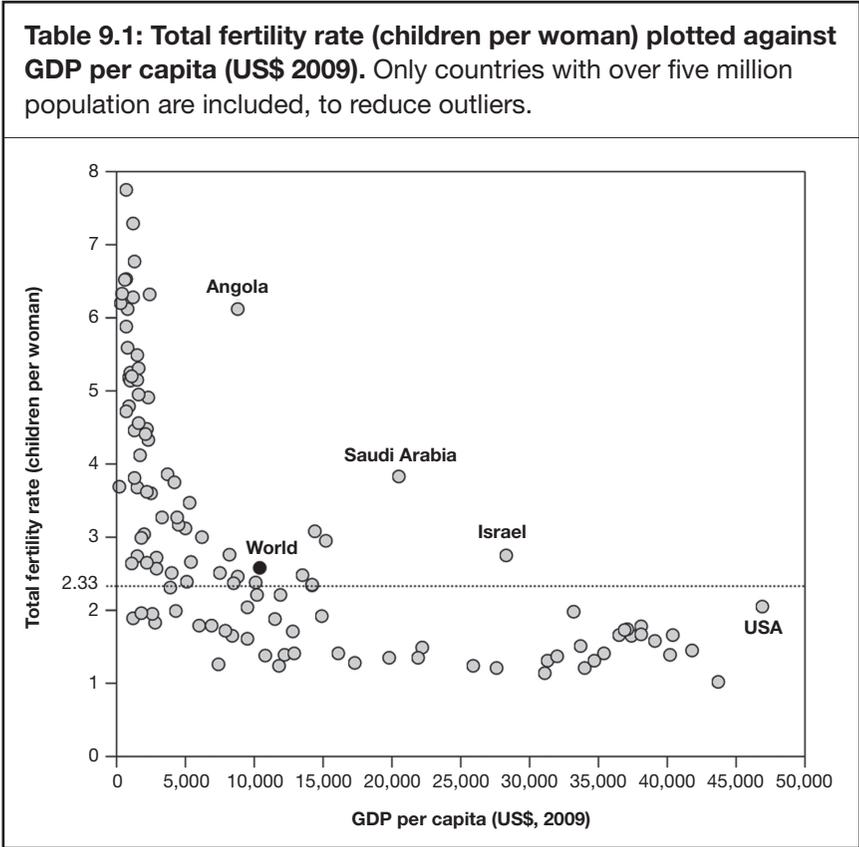
Unquestionably, however, the greatest single cause of high levels of fertility is poverty. All the statistical data shows a high correlation between low living standards and high numbers of children per woman in the population. Table 9.1 (p.226) shows how strong the relationship is between living standards and fertility. Births per woman start to fall sharply once annual GDP per head reaches about \$2,500 (measured in 2009 US dollars) and then continue to fall as it climbs to \$5,000 in almost all countries, whatever the religion or culture of their peoples. The table also shows how resistant poor countries have generally been to all the many well-meaning initiatives which have been undertaken in the least developed parts of the world to reduce birth rates in the absence of rising living standards.

The figures for the last 25 years of the twentieth century are particularly striking. Whereas the numbers of children per woman declined from an average of 5.27 in 1970-1975 to 2.78 in 1995-2000, in the less developed regions it only went down from 6.60 to 5.47 in the least developed and thus poorest countries. It is equally noticeable that during the same 25 years, annual GDP per head for the world's

population as a whole rose from just under \$2,600 (measured in 2000 US dollars) to almost \$5,400, whereas in the least developed countries it remained almost completely static, moving only from \$1,613 to \$1,661. In many countries in the poorest category, income per head actually fell over this period, sometimes precipitately. In Somalia and Zambia, it went down by nearly one third and in Sierra Leone it almost halved – although both countries are doing much better now as a result of rapidly rising commodity exports. The whole world has a huge interest in ensuring that the poverty in these very poor countries is alleviated.⁴⁹⁵

The key to ensuring that the world's population eventually plateaus at a manageable figure is thus inextricably connected with the rate at which those parts of the world with the lowest living standards can be brought up to a level where the demographic transition to lower family sizes occurs. Even then, it will take decades before the world's population stabilises. Crucial to living standards being raised in poor countries is going to be the attitude to not so much aid, but to trade in the rest of the world. The only way for poor countries to become richer is for their output per head to rise, and by far the most likely way for this to happen is for them to be able to develop trade relationships with the rest of the world – which will enable them to follow the same export led paths to prosperity as were shown to be so viable by many of the Pacific Rim countries.

For this to happen, however, the rest of the world has to provide trade opportunities which, at the moment, far too many countries are unwilling to make available. Protectionism – particularly in agriculture but also in ways which adversely impact on industrial development – is much too widely prevalent. Reducing tariffs is never easy, as successive World Trade Organisation rounds have shown, but the worse that economic conditions generally are, the harder it becomes to get them removed. One of the most overwhelming arguments, therefore, for improving the economic performance of the western world is that this is likely to be the only way to provide the world with the opportunity it needs to contain the expansion of its population at a level which will be viable for the long-term future.



Source: Wikipedia Commons

Resources

If the best solution to the world’s population problem is to raise living standards as widely as possible to bring down the birth rate towards the one in the Lower rather than the Higher UN Variant, will this mean that we simply bring forward the time when sufficient resources cease to be available to support the growth in economic output which would otherwise materialise? This has been a constant pre-occupation, at least since the publication of *The Limits to Growth* by the Club of Rome in 1972.⁴⁹⁶ Warnings of resource depletion have been taken up by many others, leading to a widely held view that increasing the growth rate, especially in the already relatively well-off western world, even if desirable, may not be feasible. A systematic review of the available evidence,

however, suggests that such a view is very likely to be misplaced. There are two main reasons why predictions of critical resource scarcity in the future are likely to be wrong. One is that a systematic inventory of the resources on which the world depends shows that few, if any, of them are likely to run short to an extent that will prevent living standards from continuing to rise. The other is the historic capacity of human ingenuity to solve problems once the urgency of doing so becomes apparent, and the resources required, generally driven by market forces, become deployed on the need to get this done.

Turning first to resources, these clearly come in a variety of different categories and a brief synopsis⁴⁹⁷ of their availability indicates that there are actually remarkably few key raw materials on which our industrialised existence depends. 80% of the value of them consists of seven raw materials: cement (of which limestone is the main component⁴⁹⁸), aluminium, iron ore, copper, gold, nitrogen and zinc, all of which are in ample supply.⁴⁹⁹ Of the remaining 20%, three quarters are made up of sixteen more raw materials,⁵⁰⁰ supplies of none of which look anywhere near running out in the foreseeable future. This leaves 5% of the total still to be considered. Of these, studies have shown that, of the 47 raw material known to have significant applications, supplies of only one – tantalum, which is used for high-tech alloys and for some electronic applications – might be likely to run short. Particularly when account is taken both of the scope for recycling, the likelihood that more reserves will be found as potential shortages appear, and improvements materialise in the efficiency with which all raw materials can be used, it does not appear at all likely that there will be significant constraints on growth for the foreseeable future because of lack of sources of supply of any of them. There may be problems because some of them have sources of supply in politically difficult areas but, especially given the scope for substitution, these should not be insoluble.

This view is reinforced by the fact that there is overwhelming evidence that, as GDP per head rises beyond fairly low levels, the resource intensity of further increases in living standards rapidly reduces proportionately the raw material resources required

to sustain them. This happens partly because of a shift towards a substantially higher proportion of increasing incomes being spent on services rather than goods. It is also worth noting that the total value of all raw material production only represents 1.1% of world GDP.⁵⁰¹ Even if the costs of producing them were to rise significantly, it would not therefore be likely to put a serious strain on the world's growth prospects.

Second, will the world be able to produce enough food to be able to feed a population of perhaps 10bn people, especially as the demand for better nutrition rises with higher living standards? The main reason for optimism is the astonishing rate at which food production has risen both in quantity and quality over the past century. As a result, even though calorie counts have at the same time risen strongly, food prices have tended to fall dramatically, although with inevitable fluctuations. The main reason for the increase in food production has been the Green Revolution, involving higher crop yields; improved irrigation and water supply; more and more widespread and intensive use of fertilisers and pesticides; and significant increase in farmer's management skills.

Can these trends continue? They almost certainly will. Technical advance is still taking place, not least in genetically modified foodstuffs, which are likely to become more and more widely used despite the objections to them in some quarters. There is a huge gap between best and worst agricultural practice, allowing large increases in output still to be achieved. Improved communication and cheaper transport have enabled world food production to be more and more heavily concentrated in those areas best suited for growing each individual crop. There is also scope for bringing more land into agricultural use, particularly in Africa. The problem with providing everyone with enough to eat does not, at least in principle, lie in getting enough food produced. The reason why far too many people are still hungry is that they do not have enough money to pay for the nourishment they need and the best solution to this problem is to raise their incomes.

Third, will there be enough water? There is certainly no shortage of it in aggregate. Total rainfall capable of being captured is equivalent to about 5,000 litres for water for everyone on earth per

day.⁵⁰² The problem is with its distribution. Just to survive on a day to day basis, a human being only requires about two litres of water per 24 hours. This figure rises to 100 litres, however, if household needs and personal hygiene are included, and by anything from 500 to 2,000 litres a day if account taken of the requirements for agriculture and industry. Globally, of all the water available, recent estimates indicate that agriculture uses about 69%, industry 23% and households 8%. Especially taking seasonal variations into account, this leaves potentially almost 20% of humanity short of water. There are, however, solutions. Desalination, although expensive, may be one. Avoiding growing highly water consuming crops in water-short areas is another. Much the most hopeful, however, is to stop massive waste of water by pricing it more appropriately, particularly in agriculture, where most of the waste takes place. It is interesting to note that 'water wars' have turned out largely to be a figment of copy writers' imaginations. The lack of warfare over water needs to be recorded alongside the no less than 3,600 treaties concerning international water resources – which history shows as having been negotiated over the centuries.⁵⁰³

Fourth, what about energy? The average person in Europe now enjoys – from non-human energy sources – the equivalent of 150 times the power that the average human being could produce. In America the ratio is about 300 and even in India it is 15.⁵⁰⁴ Clearly, at some stage in the future, if consumption is unchecked, reserves of oil and gas are going to become scarcer and more difficult to exploit and thus more expensive. As demand for them is reduced by regulation and climate change carbon taxes, however, it seems unlikely that readily available deposits will run short – especially as surveying for new deposits intensifies, technology develops and new ways of extracting oil and gas are discovered. The issue is therefore whether it is possible to bring other sources of energy onto the market, as the world's economy grows, in sufficient quantities and at manageable prices, to fill the gap which will be left as carbon-based fuels provide a declining proportion of total energy.

Part of the solution will undoubtedly come from dramatic improvements in the efficiency with which fuels of all sorts can be used, especially if energy prices rise, as is likely not least as a

result of the imposition of climate change carbon taxes. Energy consumption per unit of output halved between 1971 and 1992,⁵⁰⁵ and it has continued to decline. It also falls as a proportion of GDP as incomes rise to western standards, relieving some of the pressure on resources. Nevertheless, it is clear that alternatives to fossil fuels are going to be needed in major quantities. Renewable energy from wind and waves will no doubt fill some of the gap, although it tends to be expensive and not always reliable when most needed. Nuclear energy is another possibility, although this also has high costs and other well-known drawbacks. Capturing the heat delivered to earth by the sun may turn out to be a better medium-term bet. The heat received by the earth from the sun presents about 5,000 times our current energy use.⁵⁰⁶ The problem up to now has been the costs of photovoltaic cells, but these are steadily falling. Just over 3.0% of the area of the Sahara Desert could supply the entire world's energy needs at present levels of consumption,⁵⁰⁷ although clearly there would be major distribution problems.

Finally, however, it is worth noting that, for all the importance attached to them, energy costs only make up about 2% of world GDP.⁵⁰⁸ Even if there were significant increases in energy costs above their present level, the impact on the world's economy would not be as substantial as is often supposed. If energy was, say, 50% more expensive than it is now, at an extra cost of 1% of GDP, a wide range of energy technologies would become economically viable. Energy, therefore, may well become more expensive relative to everything else in future, but we are not likely to run short of it in aggregate.

There is another potential constraint on economic growth – which is the accumulation of unmanageable amounts of waste and pollution. Waste production tends to rise at least as fast as living standards and, if anything, slightly faster. Recycling provides a limited solution, but at fairly heavy cost both environmentally and in financial terms, leaving some form of land fill as the only alternative. This problem is clearly more acute in densely populated countries than those with low densities, suggesting that moving waste round the world to under-populated areas may turn out to be the best way to solve a problem which looks difficult but not insurmountable.

Pollution problems essentially break down into two main categories, these being those to do with air quality on the one hand and water contamination on the other. In terms of risks to human health, far the biggest problems relate to air pollution, especially in under-developed countries. Traffic fumes, open fires in poorly ventilated buildings, and industrial emissions are all major contributors. All these problems can be largely solved, however, by spending enough money on them and, as a recent World Bank survey showed, once living standards rise through \$5,000 to \$10,000 per head per annum, the pressure to clean up the environment rises exponentially, ensuring that resources are made available to do it.⁵⁰⁹

The single biggest cause of water pollution has been ocean oil tanker operations, which are now much more tightly controlled than they used to be, as are sewage discharges into the sea. Of more concern, however, is oxygen depletion in coastal areas, caused by agricultural run-off containing nitrates and phosphates, though these problems are on a limited scale in world terms. On balance, the UN recently declared that 'The open sea is still relatively clean'.⁵¹⁰ Rivers are a more serious problem, especially during the early stages of industrialisation. The urge to improve the environment as living standards rise, however, tends to ensure – as has happened all over the West – that sufficient resources are deployed to overcome these problems too. There is little doubt that the same pressures will result in similar outcomes in developing countries.

This brief survey of the constraints on growth suggests that, with reasonably good management, there are no insuperable problems to be encountered in resource terms which will constrain humanity from increasing its living standards into the foreseeable future, whether or not the West takes steps to make its economies grow much faster. Looking just at resources is not, however, enough. It is also very important to factor in the capacity of humanity to adapt to new circumstances via the power or market pressures and the use of technology. No one fifty years ago, for example, would have been able to confidently predict the results achieved by the Green Revolution in agriculture or the improvement in fuel efficiency of motor cars and aircraft. Something of a leap of faith

may be required to assume that the improvements in technology and resource management which humanity has achieved over past decades will be accomplished again in the years to come. To plan ahead on the assumption that this will not happen, however, is surely to take much too pessimistic a view. It must be an error of monumental proportions to assume that the ingenuity which has achieved so much since the Industrial Revolution began is no longer going to be available to help us to find solutions to resource and production problems as well in the future as we have done in the past.

Climate change

There is another type of constraint which certainly needs to be given due weight in the light of any proposals to increase the world's growth rate and improving the performance particularly of western economies. Should the impact of increased output on climate change and global warming preclude increasing growth, especially in the West, being a reasonable objective?

While there is wide if not complete agreement about the mechanism by which climate change takes place and the extent to which it is a threat to the world environment, there is very general agreement about a number of aspects of the impact of increased industrialisation on the world's atmosphere. Several gases, of which carbon dioxide is the most significant representing about 60% of the total, trap heat in the atmosphere, although they can also cause it to be reflected back into space.⁵¹¹ When observations started in 1960, the CO₂ concentration in the atmosphere was 315 parts per million. By 2019 the reading was 412.⁵¹² There is therefore no doubt that the concentration of CO₂ has increased and is still rising as a result of emissions caused by industrialisation. There is also no dispute that there has been an increase in average world temperatures over the last century and a half of about 1.0°,⁵¹³ although the rise took place largely over two relatively short periods, one between 1910 and 1945 and the other from 1975 until the end of the twentieth century, with a plateau between 1945 and 1975, and slower growth in temperature during the early decades of the twenty-first century

– though still increasing significantly – than almost all the climate models predicted for this period.⁵¹⁴

There is less agreement on the exact mechanism by which the concentrations of carbon dioxide and other greenhouse gases have caused the temperature to rise, although all the climate change models based on empirical data indicate that there is a strong connection. The main problem has been providing sufficiently detailed and accurate descriptions as to how the world's climate works, particularly the cooling effect of particles and the effect of water vapour on temperature and weather. The impact of different sorts of clouds on the earth's temperature have been especially difficult to model comprehensively.⁵¹⁵ There is also a good deal of disagreement about the extent to which other factors, especially sun spot activity, may influence the earth's temperature fluctuations in addition to those to do with increasing gas concentrations, especially over relatively short timescales. Some evidence, for example, suggests that the brightness of the sun has increased sufficiently over the last 200 to 300 years to raise the earth's temperature on its own by about 0.4°. ⁵¹⁶ If it is true that this much of the increase in surface temperatures which has been recorded may be due to this effect rather than that of greenhouse gases, the significance of the contribution of carbon dioxide and other gases to global warming may have to be correspondingly scaled down.⁵¹⁷

Despite differences of opinion on these issues, however, there is a very broad scientific consensus that emissions of carbon dioxide and other gases resulting from economic growth have caused the earth's temperature to rise and will continue to do so in future. There is general agreement that without counteraction being taken, increased economic activity will accentuate climate change along the lines predicted by the UN. This will involve an increase in temperature on present trends through to 2100, which cluster round estimates of between 1.3° and 3.2°, accompanied by significant rises in the sea level of between 31cm and 49cm.⁵¹⁸ What impact should these widely agreed perceptions have on proposals to increase the growth rate?

A major difference between climate change and other considerations which bear on the pros and cons of increasing

economic growth are the long timescales involved. Although cumulatively very substantial, the impact of increases in the average temperature of the earth is inevitably spread over a long period, generating difficult concerns about how much to discount benefits due to materialise a long time into the future compared to others more immediately available. Even if the Kyoto proposals, flowing from the 1992 Rio de Janeiro Climate Change Conference, were implemented in full, they would only put off by about six years, at very high cost in terms of output foregone, the increase in average earth temperature which would happen anyway.⁵¹⁹

This has prompted questions as to whether curbing emissions as drastically as the Kyoto proposals imply is a rational approach, if the alternative is a reasonable expectation that economic growth will continue over the coming decades at roughly the same rate as over the last century, thus providing a huge flow of resources to deal with whatever costs climate change may bring. There also appears to be considerably less expensive ways of achieving most of the Kyoto targets by using policies, such as carbon taxes, which would use market forces to encourage the use of energy sources which produce less greenhouse gases.⁵²⁰ If the earth, nevertheless, does warm up as predicted, estimates produced by the UN indicate that the cost of offsetting the impact of climate change would be of the order of \$7,000bn, with roughly half this sum falling on the developed world and the other half on other countries. This is a very large sum of money but not one which is necessarily unmanageable, representing 1.5% to 2.0% per annum⁵²¹ of projected future world GDP, a ratio which may fall if the world's economic output increases. Other estimates of costs, which may well turn out to be more realistic, however, have been higher, reaching up to 3% of GDP per annum, especially if front-loaded to achieve aggressive near-term targets. These costs are high but not necessarily a crippling burden.⁵²²

Even if global warming on the scale which the UN predicts unless very vigorous action is taken to retard is regarded as too risky, however, it is not at all clear that the result of holding down economic growth to stop this happening, particularly in the West, would have the longer term effects on global warming that its proponents hope would be achieved. If the economic condition of

many western countries is as poor and fragile as it appears to be at present, particularly in the face of Covid-19, with resumption of at least some reasonable rate of economic growth being the only route out of their current depression, blocking off this escape route may plunge the world into a major economic crisis. In the short term, this may reduce carbon emissions, but in the medium to long term it is very unlikely to do so. This is because a global financial crisis is bound to have a major negative impact on economic conditions in countries where the birth rate is still very high, thus putting off the time when the demographic transition towards smaller families there takes place. The result of a prolonged period of slow or negative growth among the world's developed countries is therefore all too likely to be that the total number of human beings which the world has eventually to accommodate will be significantly larger than would otherwise be the case. As all these extra people will, sooner or later, almost certainly want to have western standards of living, the impact on the world's ecology and global warming will be correspondingly greater.

There are, moreover, other ways of combating climate change than letting it happen and paying the costs. There may be ways of offsetting the factors which drive global warming by technological developments – so called geo-engineering. Possible suggestions include fertilising the oceans with algae capable of absorbing carbon, putting sulphur particles into the atmosphere to help to cool it, and capturing carbon dioxide from fossil fuel combustion and returning it to permanent storage in appropriate geological formations.⁵²³ A number of proposals such as these – and others – are already under consideration, whose cost, while high, should be manageable in relation to the adaptation costs which might otherwise be incurred.

There is a reasonable possibility that the cost of renewable fuels will fall to below that of fossil fuels, in which case there is likely to be a major switch towards their use without any taxation or subsidies being involved. There may be additional help from even greater improvements in fuel use efficiency than are currently anticipated, thus reducing the amount of greenhouse gases emitted. The ratio between GDP per head and fuel consumption has doubled about every 50 years in the developed world,⁵²⁴ and hopefully this trend

will continue. The consensus, however, is that the increase in temperature will still be significant – perhaps a total rise of 2.0° or more if urgent action to prevent this happening is not taken. This in turn has generated the aim of implementing policies to achieve restraining the total increase in average temperatures to no more than a peak of 1.5°C, followed by a decline as renewable energy sources become more widely used.

Overall, therefore, the policy mix on climate change which seems most likely to achieve the least worst results at a manageable expense is to constrain greenhouse emissions everywhere where this can be done at bearable cost, not least to reduce, as much as possible, the risk of the world reaching some kind of climatic or environmental tipping point. At the same time, however, we need to avoid the calamities which could befall us if population levels become unmanageably large if we fail to keep up the world's growth rate, among developed countries and especially the Third World. This seems to be the most sensible way to minimise the risks from global warming, while putting humanity in the best position both to generate the resources needed to counteract climate change and to do so without prejudicing other important, but much more immediately pressing, objectives.

Migration

Migration has always been part of the human experience and, as the world's population has grown, so, with ups and downs, has the number of people migrating increased. From the eighteenth century onwards, 55m Europeans migrated overseas, many of them to the USA, peaking with nearly 9m arrivals in the first decade of the twentieth century. By the end of the first decade of the twenty-first century, including legal international migrants, refugees and illegal migrants, the total number of people world-wide who were living in a country other than where they were born was estimated to be about 215m,⁵²⁵ and this number is growing at a faster rate than total population growth.⁵²⁶ The influx of migrants to western countries has now approached, in absolute numbers, the scale of nineteenth century western emigration, prompted partly by crises like the one

currently in Syria. When Europeans migrated, they were generally filling up territory that contained very few people. Now migration tends to increase already relatively high population densities.⁵²⁷

There is no doubt that migration has positive aspects to it. Diasporas spread information and facilitate trade and the spread of ideas. They can, and often do, generate flows of remittances to poor countries. A recent study by Duke University showed that, while immigrants make up an eighth of America's population, they founded a quarter of the country's technology and engineering firms.⁵²⁸ Generally, however, migration between countries with roughly the same standard of living works more smoothly than where there is a very steep economic gradient to be traversed.

By far the largest category of migrants move from one country to another for economic reasons. Migrants move because they believe that they can better their life chances somewhere else, although the data consistently show that when families move, the employment opportunities for women are apt to be less favourable than they were prior to the move.⁵²⁹ The process of taking such decisions therefore frequently includes family members who are left behind, especially in poorer countries where remittances from those who have migrated to more developed economies represent a major economic benefit.⁵³⁰ Hardly surprisingly, the flow of migrants is largely from poorer countries to those that are richer. Sometimes a large degree of integration is relatively easily achieved. At the other extreme, immigrants may find themselves almost wholly excluded from the host society. Those who have moved, however, often maintain substantial elements of their culture, including religious affiliations and language, at least for one generation.⁵³¹ The flow of migrants from Mexico to the USA is now the greatest in the world, although low Mexican educational levels have made assimilation difficult,⁵³² and there is large scale migration both into the EU and in some parts within it, sometimes presenting similar problems to Mexican migrants to the USA.

Who benefits from economically driven migration? Undoubtedly, it is migrants themselves who generally gain most from moving from one country to another. Clearly, too, the bigger the gap there is between migrants' earning power in their countries of origin and

those to which they make the transition, the greater their economic gains will be. With travel as cheap as it now is, movement from poorer to richer areas of the world is now much easier than it was, and the larger the gap there is in living standards between the developed and developing countries, the greater the migration pressure are likely to be. The key issue here, then, is whether, on balance, the overall gains from large scale international migration, especially from poor countries to rich ones, outweigh the costs. Much depends on the scale on which migration takes place and thus on the capacity of both host and donor countries to cope with its impacts. On balance, therefore, whether overall the gainers exceed the losers tends to depend largely on both how easy it is for migrants to be assimilated and the scale on which migration takes place. What are the pros and cons of migration generally?

First, it is argued that there are large numbers of jobs in high living standard countries which the indigenous work force in the developed world does not want to do but which migrants are willing to take on. This may be true, but, in many cases, there are other ways of getting the necessary work done other than by employing large numbers of unskilled people at low wages to get it carried out. There is therefore, not surprisingly, evidence that large scale immigration of people prepared to work for relatively poor remuneration discourages investment in labour-saving machinery and the improvements in productivity which go with it. Furthermore, the losers, when there is large influx of people who are prepared to work for low wages, tend to be those competing with them, although the evidence on this point is not wholly conclusive with some studies showing much more pronounced effects than others.⁵³³

Second, it is maintained that immigrants are required to redress imbalances in the age structure of developed countries with low fertility rates and thus aging populations, particular cases in point being potentially much of continental Europe and Japan. There are, however, two main problems with this approach. One is that immigrants themselves get older and will, therefore, sooner or later themselves become part of the dependency problem, even if – as is usually the case – they have larger families than the indigenous population in the meantime. The second is that the

scale of immigration required to fill the gaps in the population left by low fertility rates is on a scale which would be completely impractical because the number of immigrants required to allow this to happen would be far greater than any estimates of the host country's capacity to absorb them.

Third, it is maintained that immigration provides cultural diversity which would not otherwise be there and that this is a positive good in itself. There is surely something in this argument but it is one which needs to be balanced against the resentment which large cultural and life style differences can easily bring in train, especially if those involved are forced to live in close proximity to each other. Again, there may well be significant differences in perception among those who are well off who, for example, enjoy dining out at a variety of ethnic restaurants, from those living on high density housing estates with neighbours who cannot speak the host country language and who live their lives in different ways from the indigenous population.

Finally, it is argued that immigrants have a lot to offer because they tend to be exceptionally hard working, positively motivated and entrepreneurial. There is no doubt that there is considerable force in this contention. In the British context, for example, although not all immigrant groups have done so well, Huguenots, Jews and Ugandan Asians are all groups who have made conspicuously successful contributions – particularly to the business world but often more broadly too. The obverse of this benefit, however, is the loss sustained by the countries from which exceptionally talented and motivated groups come. All too often, they tend to be the best educated and worldly-wise migrating from poor countries which can ill afford to lose their skills.

In summary, therefore, while large scale migration for economic reasons has some merits, especially, in most cases, for the migrants themselves, the positive implications for everyone else are less obvious. Those who are on lower incomes in the developed world tend to find their earning capacity reduced while the pressure generated on social resources, such as housing and the infrastructure, generally increases, especially in countries or urban environments where the population density is already high. At the

same time, the poorer countries from which migrants tend to come can ill afford to lose the skills and abilities of the sort of people who want to migrate.

It is also clear that, as the scale of migration increases, the strains in all directions get greater and the tolerance of those in host countries, particularly its poorer members, gets stretched beyond a point where it can be contained. If migration is to be kept within reasonable bounds, therefore, there are two major requirements. One is that, as far as possible, the gap in living standards between poor and rich countries is kept as small as possible, and reduced rather than increased. The other is that the living standards of the poorest countries are raised as quickly as possible to the point where the transition to smaller families take place, thus reducing the number of potential migrants and the pressure on them to move to more manageable levels.

The major problem facing the world in migration terms, if the numbers of migrants is to be kept to containable proportions, is therefore the low GDP per head in the poorest countries, with the highest birth rates and the least promising economic prospects. No doubt, the wider the gap, the greater the pressure for large scale migration for economic reasons will become. If the poorest countries are to become better off, however, it is even more important that developed countries are doing well enough to provide the trading opportunities and aid which poor countries need to raise their living standards. If the West falters, the result, therefore, over coming decades is likely to be more and not less migration. There are already signs that there is limited capacity among host developed countries to absorb immigrants from poor countries on a larger and larger scale without tensions rising to an intolerable level. At the least, it has to be in the developed world's interest to adopt policies which will raise the living standards in the least developed economies in the world to a point where the birth rate starts to fall steeply, as has happened everywhere else once the GDP per head tipping point has been reached. Both the developed and the developing world therefore have a huge interest in ensuring that the pressures for economic migration are kept within bounds with which both donor and host countries can cope.

10.

The Future

Looking ahead

Sooner or later the coronavirus pandemic will abate, and the current crisis will be over. What will the world look like then? Nobody really knows, but it may be worth making some informed guesses, which may in turn impact on the way we tackle the present. We can certainly expect to see an economic environment very different from what we had before the coronavirus hit us.

Although there will be a recovery, some parts of the economy will have been much harder hit during the pandemic than others. In the public sector, central and local government, the police, the armed forces, and of course the NHS will all have been under great strain but with ample demand to stop them contracting. The same will be the case for large sections of the private sector, such as food, energy and pharmaceutical production and distribution, let alone distance shopping with all that its expansion entails in terms of change to the retail world. They will therefore have grown in size relatively to hospitality, non-food and drink bricks and mortar retailing, air, sea and land transport, entertainment and all the other areas of the economy which lost nearly all their customers during the lockdown. Once something like normality returns, the hard-hit sectors will bounce back, but probably not to anything very close to 100% of where they were before. People will have got used to new lifestyles, such as more cooking for themselves and wider use of home entertainment, all of which will be hard and slow fully to reverse. The economy will therefore emerge with a very different shape compared to where it was before the coronavirus crisis started.

The commercial landscape will inevitably alter massively as a result. The government rescue schemes will have staved off bankruptcy for many companies which might otherwise have gone under but very probably at the price of huge liabilities being accumulated by businesses in the sectors needing government support. Unless replaced by grants, this will take the form of either loans which will eventually have to be repaid or – perhaps – by the state acquiring equity stakes in thousands of businesses once their credit-worthiness for loans on normal commercial terms has been exhausted. After years of effort by successive governments to reduce the size of the public sector, to privatise and deregulate, the impact of the coronavirus may then be massively to increase the proportion of economic activity owned or obligated to the state and thus at least to some extent controlled and run by it. Corporate profitability will probably take years to recover fully as repaying debt, and perhaps regaining control over equity from the state, is given priority. It is likely to be a while before the stock exchange recovers the ground it lost from its peak of 7,674 on 17th January 2020.⁵³⁴ The consequence will be potentially quite a significant reverse of the increase in wealth inequality which has marked the last decade.

Some reduction in wealth inequality may well also be accompanied by a widespread reassessment of the value and thus the remuneration and respect attached to different jobs compared to those awarded to them in the past. In the middle of the current corona crisis, who thinks that bankers and City solicitors deserve to be paid huge multiples of those keeping food on the shelves in supermarkets or keeping our streets and homes clean, let alone those working on the front line in the NHS? The varying amount of pay received by people with differing occupations is partly driven by economics but a lot of it is the product of convention, history, political pressure and the leveraging of connections. This may be fertile grounds for a move back to something much closer to the top rates of income tax which prevailed during the first few decades after World War II, when not only was there much less income inequality than there is now, especially post-tax, but our economy was growing faster than it has done recently.

Our current prospects are not, however, for a larger economy once the coronavirus recedes, but for a considerably smaller one, at least in the short term. How much smaller? It is very hard to tell, but history within living memory tells us just how large reductions have been in the past. GDP fell by 30% in the USA between 1929 and 1993, and the fall in Germany over roughly the same period was 24%. We do not look likely to do as badly as this, but a reduction of somewhere between 10% and 15% between 2019 and 2020 would mean that living standards would on average have to fall – other things being equal – by this amount across the board until the economy recovers. We cannot – certainly beyond a certain point – pay ourselves more than we are producing. This may cause very substantial problems over differentials. Is it fair that those on employment contracts in the less adversely affected parts of the economy should go on being paid the same amount as they were before while other people, through no fault of their own, see their incomes decimated? Because wages and salaries are very ‘sticky’ and thus difficult to reduce, this may also lead to more pressure for higher levels of income tax, especially on high earners but also on everyone else, to level up the playing field and to stop the economy becoming overheated and inflation taking off again.

And where will this leave us with globalisation? Would the impact of the coronavirus have been as great as it is if there had been less foreign travel? Is it really the growth of international trade which has made the world so much richer than it was 50 years ago? Or is it investment in the most productive ways of building future increases in output – particularly mechanisation, technology and power – which could have taken place much more evenly over the world, with a lot less depending on international trade? Is it really sensible for the UK to have deindustrialised to a point where we are struggling domestically to produce anything like all the ventilators and personal protective equipment (PPE) which the NHS thought it needed while China can produce them in vast quantities? Globalisation has undoubtedly had benefits in fostering the distribution of efficiency and best practice, spurring competition and taking advantage of specialisation, but it has also

led to huge trade imbalances, the hollowing out of labour forces in the West and vulnerability as complex international supply chains get disrupted.

The result of pressure to reshape the way world commerce and industry is organised may be an important ideological battle between the East, led by China, with a potentially still isolationist USA providing a faltering lead in the West. China appears to be recovering from the coronavirus with less damage done to its economy than seems to be likely to the case in western countries. China may therefore go on growing much faster than the West, as the government there switches demand towards its huge population and away from depending nearly as much as it has done in the past on export markets. Meanwhile, the West may struggle to get back on its feet with anything like comparable speed. If this happens, as seems likely, hard and soft power, as well as economic muscle, will continue to migrate eastwards, leaving the West and its liberal democratic way of life increasingly under threat of competition from a much more authoritarian East. These developments are likely to be accentuated by the West being under increasing pressure, not only from recovery from the coronavirus as the costs of climate change, health care, education and training, social care and pensions rise inexorably.

And this may lead to another major change of perception as the realisation spreads that it is deindustrialisation, and the collapse of light industry in the UK, which has been the main cause of our stagnant productivity. More manufacturing in the UK is also our best bet for both closing our huge balance of trade deficit and arresting, and perhaps reversing, the massive imbalances there are between London and the rest of the country. This is why we ought to embark on a programme of reindustrialisation at least to get us some of the way back to where we used to be. If we could get the proportion of GDP coming from manufacturing up from its current 10% to something like 15%, we would be in far better shape to tackle the problems of post-coronavirus recovery. To achieve this objective, however, would mean running the economy with monetary policies, particularly on the exchange rate, which make it profitable to site new production capacity in the UK – rather than

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China, Germany or Holland. We would have to run the economy much more in the interests of manufacturing and the regions instead of finance, services and London.

Conclusion

To summarise, in the face of all the available evidence, it seems very difficult to believe that the policies we have pursued over a long period have not hugely disadvantaged UK manufacturing industry and thus the economy as a whole. Nearly all our internationally-traded low- and medium-tech manufacturing has been driven out of business and there is insufficient high-tech activity – also subject to long term threat – to fill the gap. The result is that our economy has been left deeply unbalanced, unable to pay its way in the world, with too much borrowing, and with mounting regional, inter-generational and socio-economic inequality. On top of this, we are now faced with the need to recover from what looks certain to be the largest ever downturn in the economy since the Industrial Revolution got under way two and a half centuries ago.

It may be that we shall attempt to achieve this recovery along broadly familiar lines, with the pound much too high for manufacturing to flourish. We will then have far too low a share of the world's manufacturing capacity to enable us to benefit much if at all from its unique capacity to raise productivity, and to secure enough growth in output to meet all the challenges which we are going to have to deal with over the next few years. The risk then is that real incomes are drastically squeezed down, as public services remain under mounting pressure, and disposable incomes fall.

The message in this book is that we ought to be able to do much better than this. Very few major policy initiatives, nevertheless, are risk-free and this is true of going for a competitive exchange rate and export and investment led growth to create the resources necessary for us to be able to face the coming decade with reasonable confidence. The real risks with the strategy proposed are, however,

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relatively easy to identify and to quantify. There are three of them which are key to successful implementation.

Year of devaluation	Overall devaluation percentage	Inflation previous year	Inflation devaluation year	Inflation devaluation year +1	Inflation devaluation year +2	Inflation devaluation year +3
1931	24%	-1.7%	-10.1%	-9.9%	-6.6%	+5.5%
1949	31%	5.1%	2.4%	2.7%	9.9%	6.3%
1967	16%	3.9%	2.7%	4.8%	5.4%	6.3%
1992	15%	5.9%	3.7%	1.6%	2.5%	3.4%
2008	22%	2.3%	3.6%	2.2%	3.3%	4.5%
2016	9%	0.1%	1.3%	2.6%	2.4%	1.9%

Sources: *One Hundred Years of Economic Statistics* by Thelma Liesner. London: Facts on File and the Economist, 1989, and successive editions of *International Statistics Yearbook*. Washington DC, IMF. Combined with data from the Office for National Statistics and <https://inflationdata.com>

The first concerns whether there is any unusual risk to be expected from inflation if the cost pressures from recovery from Covid-19 are combined with the inflationary impact on import prices from a lower pound. The answer is that the risk of significant price rises as a result of a depreciated pound on its own are limited, as Table C.1 shows. There certainly is a risk of inflation going up if demand exceeds the capacity of the economy to supply as a result of the damage done to it by the lockdown period, but this threat will be there whether or not there is a lower pound. Is there a risk that a combination of both a lower pound and recovery from the coronavirus together would make the risk cumulatively greater? Realistically, there has to be some chance of this happening, but it does not look very great in relation to the benefits which ought to be secured. If – probably at worst – there was a price to be paid in the form of an annual increase in inflation of 1% or 2% in return for increasing the growth rate by around 2% every year, it seems likely that most people would think that this was a price worth paying.

The second issue is whether we can rely on the sensitivity of exports and imports to a much lower exchange rate being sufficiently large to generate enough new demand for exports, constraint on import volumes, and sufficient incentive to increase

investment to make the policy work. Table 2.7 (p.59) and Table 2.8 (p.60) indicate that the values needed are in the right area. Caution is still required, however, and the calculations about the impact of a lower exchange rate in this book have been based on elasticities of 0.8 for exports and 1.0 for imports, which are considerably lower respectively than the 1.37 and 1.68 in Table 2.8 – albeit a little higher than the 0.86 and 0.65 in Table 2.7. These lower elasticities still easily fulfil the widely accepted criterion for a lower exchange rate producing an improved trade position – the Marshall-Lerner Condition – which is that the sum of the import and export elasticities (ignoring their sign) is more than unity. Given a commitment by the government to maintain a sufficiently competitive exchange rate to make a substantial measure of reindustrialisation profitable in the UK, the risk of an inadequate elasticity response therefore looks low.

The third issue is whether it is realistic to assume that the overall or social rate of return on a substantial proportion of the new investment in mechanisation, technology and power, with most of it going into manufacturing industry, would be high enough. Would it be sufficient to make a shift towards both more investment and a better trade balance possible at the same time as paying for rising social and environmental costs, avoiding a severe squeeze on disposable incomes and finding the resource for increased investment? The evidence in Table 2.3 (p.46) indicates that this condition is also one which could be met. Both Japan and China have had long periods in their histories – matched by the USA and, even to some extent, the UK for shorter periods during the build-up to World War II – when returns on the required scale were achieved. We need to replicate them again – using the same determination and foresight to break ranks with the past as the government did in the UK when coronavirus struck – only this time to build the economy up rather than drastically to reduce its output.

So, there are some risks with a competitive exchange rate strategy even though they look containable. And they need to be weighed up against those entailed by not adopting this kind of policy. The risks are then of a prolonged and slow recovery from Covid-19,

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accompanied by increasing cost pressures while the UK economy becomes even more unbalanced, its growth rate falters, and living standards decline, possibly quite steeply.

If our macro-economic and exchange rate policies continue broadly as they are at present, the downside risks are, to reiterate, that investment as a percentage of our GDP stays at around 17% – well over 30% in ratio terms below the 25% world average; that the proportion of the most productive forms of investment which we do carry out, clustered round mechanisation, technology and power – languishes at less than 3% of GDP, which is less than the depreciation charge on existing assets; that the proportion of our GDP coming from manufacturing – already less than 10% – continues to slip down; that the deindustrialisation continues to leave large numbers of regions in the UK with insufficient capacity to sell to the rest of the world to support themselves; that job prospects in these areas too often remain low-paid, insecure and unfulfilling; that we continue to have a balance of payments deficits of some £100bn a year, financed by borrowing and net sale of UK assets; that as individuals, through our government and as a nation, we spend too much and save too little as borrowing and debt rise and rise; and that inequality between the regions, the generations and socio-economic groupings widens still further.

Overarching all these more detailed considerations is the prospect of our economy only slowly recovering from the coronavirus crisis with an underlying growth rate so low – probably less than 1% per annum per head of the population – that living standards for most people in the UK fall during the 2020s, so that they are lower in 2030 than they were in 2019 – or even in 2007, just before the 2008 financial crash. The risks involved in this scenario both economically, socially, politically and internationally are clearly very substantial. This is why recognising the need to make the UK economy more competitive, and taking the necessary action to make this happen, may be a much safer course of action than ploughing into another decade of import and debt led stagnation.

The key message in this book is that, if accompanied by appropriate policies, a reduction of about 20% in the current value of sterling on the foreign exchanges – from about £1.00 = \$1.25 to

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£1.00 = \$1.00 and from £1.00 = €1.10 to £1.00 = €0.85 – would enable there to be a roughly 2% increase in our growth rate cumulatively every year, with the benefit spread all over the country. The key to getting this done – and indeed the only way in which it could ever be achieved – is to switch 4% of our GDP out of consumption and into the types of investment – mechanisation, technology and power – which are capable of generating total, or social, rates of return of 50% per annum or more. $4\% \times 50\%$ produces the 2% increase in output every year in addition to what would otherwise be available. Is this really an opportunity which we can afford to forego?

Notes

- 1 Wikipedia rankings from various sources.
- 2 Page 81 in *International Financial Statistics Yearbook 2018*. Washington DC: IMF, 2018.
- 3 Ibid, page 75.
- 4 Google data on manufacturing historically as a percentage of UK GDP.
- 5 www.madehere.com website.
- 6 UK ONS Time Series data.
- 7 Monetary Base tables in *International Financial Statistics Yearbook 2010 and 2018*. Washington DC: IMF.
- 8 ABMZ ONS Time Series data.
- 9 ONS NUTS data.
- 10 Google data on millennials versus generation z.
- 11 Equality Trust data.
- 12 Ditto.
- 13 6.0% was the fall in GDP between 2008Q1 and 2009Q2. ONS data for ABMI.
- 14 Page 1059 in *International Financial Statistics Yearbook 2010 and 2018*. Washington DC: IMF.
- 15 ABMZ ONS data and population statistics.
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Covid-19 has forced the UK into an economic crisis, generating the deep recession with which we are now faced. To bounce back, this book argues, we need a fundamental rethink about the economic policies that have caused us to deindustrialise and to allow the massive imbalances – from which the UK economy currently suffers – to accumulate. Above all, this means reassessing the role of the exchange rate as a crucial but almost totally neglected policy tool.

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