

Contents

<i>Acknowledgements</i>	vii
<i>List of Tables and Figures</i>	ix
<i>List of Abbreviations and Acronyms</i>	xii
Part I Introduction	1
Prologue: Searching for a New Kind of Economics	3
1 Japanese Economic Performance During the 1990s	29
Part II Enigmas: Challenges to the Traditional Paradigm	35
2 The Enigma of the Ineffectiveness of Fiscal Policy in the 1990s	37
3 The Enigma of the Ineffectiveness of Interest Rate Policy in the 1990s	49
4 The Enigma of Japan's Long Recession	78
5 The Enigma of the Ineffectiveness of Structural Policy	91
6 The Enigma of Economic Growth	103
7 The Enigma of the Velocity Decline	114
8 The Enigma of Japanese Asset Prices	134
9 The Enigma of Japanese Capital Flows in the 1980s	139
10 The Enigma of Japanese Bank Lending	143
11 The Enigma of Banking and its Recurring Crises	149
Part III Explanations: Applying the New Paradigm	155
12 Solving the Enigma of Banking and Money	161
13 Credit, Money and the Economy	181
14 Explaining the Velocity Decline	201
15 The Determinants of Growth	207

16	The Cause of the Asset Price Bubbles and Banking Crises	226
17	The Determinants of Japanese Capital Flows in the 1980s	238
18	Why Fiscal Policy Could Not Work	246
19	Monetary Policy in the 1990s and How to Create a Recovery	261
20	Monetary Policy in the 1980s: How Bank Credit was Determined	267
	Part IV The Goal of Macroeconomic Policy	295
21	Banking Reform	297
22	The Goal of Fiscal, Structural and Monetary Policy	307
23	A New Kind of Economics	321
24	A New Vision of Macroeconomic Policy	336
	<i>Notes</i>	342
	<i>Bibliography</i>	381
	<i>Index of Authors</i>	411
	<i>Index of Subjects</i>	414

Prologue: Searching for a New Kind of Economics

The dominant paradigm

In the 1980s and 1990s a school of thought reached the zenith of its power. Its influence had become pervasive. Having been the view of only a minority little more than 20 years earlier, this approach had succeeded in dominating its discipline at all leading universities in the world. Academics that did not adhere to it found it hard to make a career: obtaining jobs or moving up the ladder depended on publications in leading journals – which had been usurped by this particular school of thought.

But dominance in academia was merely the foundation of a much wider-reaching influence. A large number of prominent national and international bureaucrats, journalists, politicians and other ‘opinion-makers’ had either been trained in the discipline or had otherwise become its followers. As a result, the views proposed by it came to dominate public policy debate by the mid-1980s, permeating the discussion of issues affecting individuals, communities, companies, the nation and the international community. This school of thought is better known by its key tenets than by its name. Its key beliefs are that the pursuit of individual self-interest will lead to a better society, that government intervention beyond the narrow maintenance of law and order should be minimized if not eliminated and that the powers of unfettered markets should be unleashed in virtually every part of society, at home and abroad. For this purpose, structural reforms are recommended to deregulate, liberalize, privatize and open up as many industries and aspects of the economy as possible, as the beneficial forces of the invisible hand, if only allowed to operate freely, would improve people’s lives, create wealth, produce prosperity and lead to maximum happiness.

The name of this school is less well-known: neoclassical economics. This may have to do with its somewhat obscure or technical ring. It is also testimony to the extent of its dominance: proponents are often no longer aware that there could be alternative schools of thought. To them, neoclassical economics is synonymous with modern economics *per se*. Most economics

programmes at universities consist entirely of neoclassical economics, and students can spend years studying for their degrees without becoming aware that they may have been studying just one particular branch, one of many schools of thought in the discipline of economics.

The financial press cites neoclassical ideas on a daily basis and its followers have entered highest public office. Central bankers are among the first profession to have been closely associated with neoclassical economics. This was followed by financial journalists and civil servants. As a result, the tune of deregulation, liberalization and privatization is being played daily and offered almost as the panacea to many of the world's ills. For instance, in July 2003 we were warned in the *Financial Times* that the German 'economy will stagnate', unless the country does what neoclassical economics recommends, namely to 'accelerate the pace of the economy's structural change ...' What is needed, we are told, is 'privatization, deregulation and liberalization'.¹ State-dominated firms need to be sold off. The labour market needs to become 'more flexible'. This means that employment protection must be abandoned and staff should be laid off, while the remaining ones are made to feel they might be next. 'Reforms of the social security and healthcare systems to reduce ballooning costs' are needed, which often is to say that the lifelong contributors to these systems should be denied the agreed payouts. If such deep structural reforms are not implemented, we are warned, Germany will not be 'fit for the future'.² The story is familiar in other countries. In July 2003, neoclassical economist Paul Samuelson, whose textbooks have contributed to the advancement of his school of thought, reaffirmed that 'Free markets [are the] key to prosperity.' Turning to Japan, Samuelson has little trouble identifying the solution to its problems: a recovery is only possible 'by turning away from the old Japanese model' and implementing deep structural reform.³

Samuelson's nephew, Lawrence Summers, is another example of a successful neoclassical economist who made it into highest government office. Neoclassical economists have moved beyond being appointed central bank governors, ministers of the economy or treasury secretaries. They have even become prime ministers (such as Spain's former prime minister Aznar) or Presidents (such as Peru's Toledo). In these positions of influence they have done much to advance the policy programme of the neoclassical school of thought.

Anyone who has lived in one of the world's less developed countries – in other words, the vast majority of the world's population – also has ample opportunity to experience the neoclassical policy agenda. Neoclassical economics has dominated the decisions of the large international organizations that deal with economic policy. Among them, regional development banks, the IMF, the World Bank, the BIS, the WTO (and its predecessor), as well as the OECD stand out. Early on, these institutions had focused on hiring and advancing the careers of adherents of the neoclassical school of thought. Already by the late 1970s, they had become bastions of neoclassical

economics. Their policy advice duly reflected this. Thanks to the legal, financial and political muscle of these institutions, especially the IMF and the World Bank, the neoclassical free market economics was projected beyond the limitations of a small number of industrialized countries where it had been developed and made its mark on the world by affecting the lives of millions of people in the most far-flung corners of the earth. In over 100 countries, central bank policies, IMF-led structural adjustment programmes and development bank-led reform packages drastically changed fiscal policy, monetary policy, regulatory policy and many aspects of how societies are organized, each time along the neoclassical lines. This could take the form of cutting food subsidies for the financially weak or privatizing the supply of drinking water, thus often pricing the poor out of their water supply. The neoclassical policy agenda was usually supported by the US Treasury, which did much to advance the neoclassical consensus of Washington-based international organizations.

Wherever the World Bank and the IMF became active – most of the developing world – they soon seemed to know the true problems of each country. Little local research was necessary to reach their conclusions. Switching the country name from an earlier study seemed to do much of the job, since the policy advice is highly predictable and appears to apply to all countries: structural reform to implement liberalization, deregulation and privatization, we are told, is the only path to prosperity.

The fall of communism in the late 1980s provided another major boost to the already dominant neoclassical school of thought. Commentators hailed this as evidence that government intervention must be inefficient and only free markets would lead to economic success. There was even talk of the ‘end of history’, as the paradigm of free market capitalist economies with minimal government intervention now stood unopposed and without rival (Fukuyama, 1992). Free market economists were in great demand as well-paid advisers to the governments of transition economies, where they duly recommended ‘shock therapy’ – the simultaneous introduction of free markets in almost all industries.

The empirical record

The rise of the neoclassical school of thought to dominance and influence must be considered remarkable, perhaps unprecedented. What, then, has been the result of its dominant influence on the world?

Have the major global economic problems come closer to a solution? Has poverty become less of a problem? Has inequality declined? Has economic growth accelerated and become more stable in the many countries that adopted neoclassical policy advice? Have business cycles receded? Has free market ‘shock therapy’ delivered the desired results? Has happiness increased?

Since the late 1990s, a growing number of people have become disillusioned with neoclassical economics. They range from students at leading economics

departments to established intellectuals in many disciplines, from independent activists to politicians. Many accuse neoclassical economics of failing to deliver on its promises. Often, criticism is targeted against an important aspect of the neoclassical agenda, namely the 'globalization' of the world economy through free trade (mainly for developing countries) and fewer government constraints on large-scale multinational corporations. The neoclassical doctrine, the 'Washington consensus' of unfettered free markets and neoliberalism, has since been labelled 'market fundamentalism', 'market extremism' or even a 'religion'.⁴ Experienced civil servant and economist Robert Nelson, for instance, makes the case that economics has become the modern secular religion, complete with a priesthood (economists), a sacred text (Samuelson's *Economics*) and a plan of salvation (material progress and the liberalization agenda will solve the problems of mankind) (Nelson, 2001). The pure free market dogma is still preached by academia and the corporate media, and implemented by central banks, governments and the leading international organizations. However, unease about its results and implications has spread widely over the recent years.

Careful economists had long been aware that the neoclassical paradigm did not offer all the answers. There were many important empirical facts that neoclassical macroeconomics could not explain. However, the dominant school of thought proved adept at distracting attention from its flaws, for instance by labelling inconvenient empirical facts 'puzzles', 'anomalies' or 'paradoxes' – mere curiosities that one need not worry about. Whether the 'mystery of the missing money', the 'puzzle of the velocity decline', the mysterious 'breakdown in the money demand function', a surprising collapse in savings, the inability to explain exchange rates or asset prices, or the problem that interest rates appear to follow economic activity, not lead it as the mainstream proclaims – neoclassical economists have succeeded in keeping a lid on the difficulties that their approach has had in reconciling their theories with reality.

However, just when communism fell and many celebrated the unrivalled supremacy of the neoclassical free market model, a formidable empirical challenge was raised that could not easily be covered up: the East Asian economic success.⁵ The stellar economic performance of Japan and the East Asian economies had not been achieved through free markets, liberalization or deregulation policies advanced by neoclassical economics. In 1993, this was reluctantly recognized by the World Bank in its 'East Asian miracle' study. Quite to the contrary, the East Asian success was due to government intervention in the form of clever institutional design and direct intervention in resource allocation, especially in the credit markets.

Until the end of the 1980s, the postwar Japanese economic structure was characterized by restricted and incomplete capital markets, reliance of corporate finance on bank funding, weak shareholder influence, a large number of government regulations, direct government interference in the

form of 'guidance', a large number of formal and informal cartels, inflexible labour markets offering full-time staff at large enterprises job security, promotion based on the seniority in terms of years spent with the firm and in-house company unions. In the other East Asian countries there were close similarities, some put in place already under Japanese colonial rule.

Thus according to neoclassical economics, the East Asian economies, foremost among them Japan, should have been economic disaster zones throughout the postwar era: the fundamental theorem of neoclassical welfare economics identifies the particular set of assumptions under which the competitive economy is efficient. These assumptions, which include perfect information, complete markets, perfect competition, no transaction costs, and so forth, define an economy where interventions, such as by the government, cannot but reduce allocative efficiency. The Japanese, as well as key East Asian economies, have at no time during the postwar era resembled such an economy.

Yet instead of low performance, Japan, as well as the main East Asian economies, delivered high economic growth for many decades. The phenomenal growth of the Chinese economy over the past two decades has also occurred without the benefits of the free market model proposed by neoclassical economists.⁶ Meanwhile, many of the IMF's free market pupils in Africa and Latin America languished in economic misery. While many neoclassical economists put up a last defence, arguing that East Asia and China have been successful *despite* their different systems, and would have been *even more* successful if they had implemented neoclassical policies, others realized that important lessons for economic theory had to be learned from the East Asian success story. Foremost among them is Joseph Stiglitz, who in the late 1980s turned his eyes towards Japan and East Asia and produced a series of path-breaking articles that profoundly challenged the neoclassical paradigm.⁷

But just when more and more economists and policy-makers were becoming willing to accept that there were serious problems with neoclassical economics and to consider alternative, Asian-inspired approaches, disaster struck the region. Firstly, Japan's economy moved into a decade-long economic downturn beginning in 1992. Then, in 1997, a major financial and economic crisis hit Thailand, Malaysia, Korea and Indonesia, resulting in currency collapses and contracting economies. Proponents of neoclassical economics were quick to place the blame. Ignoring the fact that mainstream economics could not explain the East Asian success, they quickly argued that the economic crises had been inevitable: after all, there was significant government intervention and market regulation in East Asia and the economies had been far removed from the free market paradigm. That, we were told once again, was a recipe for disaster.

Today, many neoclassical economists feel vindicated by the weak economic performance of Japan over the past decade, although they have to

admit that most other East Asian economies have returned to their high-growth ways. Japan remains the linchpin around which a major economic argument will be fought: was the extraordinarily long recession of the 1990s really due to Japan's economic structure? If not, what then explains it? Whether a supporter of current mainstream thinking or a proponent of an alternative school of thought, all have to grapple with the realities of Japan. Its economy has become both the stumbling block and also the measuring rod for economic theories.

The Japanese challenge to economics

While there are many empirical facts that neoclassical macroeconomics cannot explain, the concentration of 'puzzles' and 'anomalies' has indeed been largest in the case of Japan – and instead of disappearing alongside with the Japanese recession, the challenge to neoclassical macroeconomics became ever bigger throughout Japan's long downturn. Since Japan is the second largest economy in the world, it is a challenge that mainstream economics cannot easily ignore.

Having puzzled neoclassical economists in the preceding decade through its high growth, during the 1990s Japan sank into an equally inexplicable recession. Unemployment rose to postwar highs, reaching over 3.8 million officially unemployed in the late 1990s.⁸ Since 1990, over 210,000 firms have gone bankrupt. This has created much dislocation and bad debts. Every year about 30,000 people have been committing suicide in Japan. According to the National Police Agency, the increase in suicides is connected to corporate failure, unemployment and debt that resulted from the decade-long downturn. In addition, Japan also holds the postwar record for deflation among industrialized countries.

Japan's downturn also lasted longer than what is normally understood as merely cyclical. Most of all, the Japanese economy appears to have confounded every policy response mounted by the authorities. The key policy recommendations of the mainstream schools of economic thought have been implemented over the past decade, yet for years with very little to show for it.

Firstly, the mainstream prescription to reduce interest rates proved to be a disappointment. Most macroeconomic models argue that lower interest rates should result in higher economic growth. This is also the claim made by the world's central banks. In their frequent publications they do not tire of repeating their assertion that the key variable driving the economic cycle is interest rates, and that lower interest rates will stimulate growth. This theory has become so absorbed into modern journalism that the media regularly present it as a well-proven fact.

The Bank of Japan started lowering interest rates as early as 1991. Short-term interest rates have since been reduced from 6% in 1991 to 0.001% in

early 2004. Long-term interest rates, as measured by the ten-year benchmark government bond yield, have fallen from over 7% to a record low of 0.4% in early 2003. The most powerful policy tool according to leading theories, central banks and perceived wisdom had been entirely exhausted over the past decade, without having had any noticeable effect on the economy.

The lack of effectiveness of interest rate policy encouraged the implementation of fiscal stimulation. Between 1992 and 1999 over a dozen fiscal spending packages were implemented, amounting to well over ¥120 trillion. Together with these explicit government spending programmes, the 'automatic stabilizer' of recession-induced rises in social support expenditures on the one hand and reductions in corporate, income, capital gains and transaction taxes on the other produced a record amount of national debt. The amount of outstanding central government debt rose to over 150% of annual GDP in 2002. Japan thus embarked on one of the largest fiscal expansion programmes in peacetime history. This also failed to deliver the expected result: whenever government spending increased, private sector economic activity shrank by a similar amount, so that government spending never succeeded in improving economic growth, let alone in 'kick-starting' or 'pump-priming' the economy.

The fact that a decade of record interest rate reductions and vast fiscal expansion failed to help Japan's economy poses a profound challenge to traditional mainstream economics that remains unanswered. While one or two years of incongruence between theory and reality might have been tolerated, over a decade of underperformance despite textbook-style stimulation policies is a sign of a major flaw in mainstream theory.

Instead of weakening the mainstream paradigm, however, the failure of the traditional demand-side theories ironically provided a boost to the more extreme proponents of neoclassical economics, known as 'supply-side' economists. They proposed two arguments, both of which recommended that Japan must respond to the recession by deep structural reform in the form of deregulation, liberalization and privatization: one was based on the assumption that economies always operate at their full employment level. Since demand factors were by assumption excluded in such theories, an economic slump can then only occur when the supply of factors of production restricts the economy. Thus these neoclassical economists argued that a lack of labour (due to demographic problems), insufficient capital, or lagging technology were to blame for Japan's recession. Failing that, Japan's recession must have been due to low productivity, we are told. Since an insufficient supply of production factors or low productivity are seen as the causes of the recession, structural reforms to release more production factors and raise productivity were seen as the answer. Another camp of neoclassical economists cited their theorem of welfare economics, which purports to show that only a deregulated, liberalized and privatized economy with minimal government intervention could be efficient and productive. Since

Japan's economic structure has been characterized by regulations, government intervention and a number of publicly owned companies, such as the post office, these economists also argued that deregulation, liberalization and privatization were the answer.

While both rationales for structural reform are widely supported in the financial press, they turn out to have no foundation in empirical evidence. As will be seen, there is ample evidence of an excess supply of factors of production and significant and sustained downward pressure on factor prices. The argument that insufficient demand has caused Japan's recession remains far better supported by the facts. Given the reality of record unemployment, it appears difficult to justify models that assume full employment. It is also not explained how measures to improve the supply side of the economy should help boost demand. Furthermore, the substantial trade surpluses that Japan accumulated during the 1990s, rivalling the record surpluses of the 1980s, were evidence that Japan's economy was, after all, among the most competitive and productive in the world, even during the 1990s.

Nevertheless, the neoclassical demand for structural reform became mainstream opinion and thus the Japanese government embarked on a major structural reform programme during the 1990s, including several thousand deregulatory measures, administrative reforms and the 'Big Bang' liberalization of financial markets. Yet there is no evidence that these structural reforms boosted economic growth. To the contrary, the empirical relationship between economic performance on the one hand and deregulation, abolition of cartels and greater market reform on the other has been quite the opposite of what neoclassical economics proclaims: when Japan significantly increased the number of cartels in its economy during the 1950s, economic growth accelerated sharply. It is less well-known that structural reforms towards greater market orientation were already started in the 1970s – under US political pressure – resulting in the scrapping of cartels and a steadily growing role for market forces. Thus the number of cartels fell sharply during the 1970s. When the structural reform programme accelerated during the 1980s and 1990s, the number of cartels came down further, finally dropping to zero. However, this shift away from the cartelized Japanese economic structure to a market-oriented economic structure was not accompanied by higher economic growth, as the neoclassical theories had predicted. To the contrary, as the number of cartels fell, so did economic growth. The decade of zero cartels was also when GDP growth dropped to zero.

Since none of the traditional theories could explain events in Japan, some economists became interested in a more fact-based search for possible answers. A group of economists became aware that the state of the Japanese banking system was less than satisfactory during much of the 1990s. It took years for this fairly obvious fact to become acknowledged by most economists, because banks and their role in the economy are greatly neglected in

mainstream economics. Strictly speaking, neoclassical economics has no role for money in its models. And those models that grudgingly introduce money make no room for the function of banks. However, since the early 1990s, an increasing number of economists had argued that banks serve a special function in the economy through their activity of lending. This 'lending school' represented a renegade group of empirically-oriented neoclassical economists that hoped to explain some of the 'anomalies' that mainstream models could not deal with. They argued that bank lending was a wrongly neglected variable, which mattered especially in times when banks did not lend sufficiently, for instance due to their own balance sheet problems. Then, they argued, there could be a 'credit crunch' in the economy, as was argued in case of the US downturn of 1990 and 1991, as well as Japan during the 1990s: banks were increasingly suffering from bad debts, which appeared to render them more risk averse, so that they could not lend to those who wished to borrow. The implication was profound, for this explanation relied on the argument that markets were not actually clearing. However, the vast majority of economics textbooks and mainstream theories are based on the assumption that markets clear. Without it, most of neoclassical economics would become irrelevant. There was therefore a great reluctance to accept this 'lending view' and its implication of market rationing.

However the lending view, including its 'credit crunch' variant, also had a problem. While the empirical evidence seemed to suggest that there was something special about banks and their lending, it proved difficult for economists to pinpoint precisely what this was. Theories were proposed that banks serve the function of collecting and administering information on potential borrowers, or of 'monitoring' them. But capital markets do the same thing. Thus the argument ended up focusing on how banks served a special role in 'intermediating' between savers and small-scale borrowers: small and medium-sized enterprises had imperfect access to capital markets (the acknowledgement of which was another move away from the 'efficient market' equilibrium economics of mainstream textbooks).

Yet this lending view also found it very hard to explain the Japanese experience of the 1990s: if indeed a lack of credit supply from Japanese banks had been the cause of Japan's recession, then the incipient credit demand should simply have been met by foreign banks, which apparently had been vying to gain access to the Japanese market. Furthermore, borrowing from capital markets increased throughout the 1990s, a disintermediation process which diminished the reliance on bank funding. The 'bank lending' theories failed to explain why borrowing from these alternative sources did not substitute for a potential lack of bank lending.

The sudden recovery of 2004 once again took economists by surprise and few agree about what caused it. So far, there is no evidence that any of the standard theories explained, let alone predicted, the strong growth rate experienced in this year.

Thus today traditional economics has to face the embarrassing reality that it still has not explained events in Japan. What are the implications of this fact? Most economists have tried to shrug it off as being the fault of Japan – that weird economy that seems to defy theory. Is this response scientifically justified? Any economic theory that claims general validity must also apply to the second-largest economy in the world.

Disillusionment with mainstream economics

It is a good time to revisit Japan, because there is today increasing disillusionment with neoclassical economics on other grounds as well. More and more economists feel that neoclassical economics has simply failed to deliver on too many counts.

Privatization, for instance, was meant to increase the quality of services and reduce their prices. But in many cases this was not achieved. British railways or electricity providers in the US are but two examples from the industrialized world. In many transition and developing countries, privatization was often even more disastrous, appearing akin to a get-rich-quick scheme for a small elite at the expense of everyone else.⁹

Unemployment was said to be the result of ‘inflexible labour markets’, which result in excessively high and rigid real wages. Cut the wages and unemployment will decline, neoclassical economists assured us. But when real incomes fell – as they did in the US for most middle-class families, or in much of Europe due to the euro-induced inflation – or when real wage growth lagged behind productivity growth – as recently in many countries in the world – there was little sign of an increase in employment, let alone improved standards of living for the majority. Unemployment increased in many cases when real wages fell.

Deregulation, liberalization and other market-oriented structural reforms were meant to bring prosperity to the developing countries. After decades of painful and costly World Bank and IMF programmes, Africa has very little prosperity to show for it. Many Latin-American and Asian developing countries also do not appear any better off as a result of these programmes. There is ample evidence pointing in the opposite direction.

Proponents of neoclassical policies raised hopes that standards of living and the quality of life could be improved all over the world, that poverty and deprivation was going to be a thing of the past. As recent as the 1950s and 1960s, many economists were convinced that, thanks to the advances of economics, an era of stable economic growth and ever-increasing wealth and prosperity had begun and would spread welfare across the world. This is not what happened. There is very little empirical evidence that poverty, destitution, disease and economic inequality have been defeated. To the contrary, many studies seem to indicate that inequality has been increasing.¹⁰ True, the super-rich have done very well from neoclassical policies: in the UK in 2003

their wealth increased by 30%, 15 times as fast as inflation.¹¹ However, this is true only for the top 0.002% of the population. There is no evidence that the wealth of the majority rose anything like it. The number of people living in urban slums is rising rapidly. Poverty remains an urgent and growing problem. The gap between the well-off and the poor is not closing but widening. While empirical data on this question is interpreted differently (usually depending on one's school of thought), there is little denying that the rich receive more, while the poor are getting less – or that the little they own may even be taken from them. In some countries the concentration of wealth and power that resulted directly from neoclassical policy advice has become so enormous that even an institution such as the World Bank has warned of the 'inefficiency' of such wealth concentration.¹² The fruit of the neoclassical reforms has been increasing inequality, which in turn has triggered new social, political and even military tension in many parts of the world.

According to the neoclassical 'Washington consensus' emanating from the international organizations, there is no need for poor countries to develop indigenous industries, because free markets will ensure that everyone focuses on their comparative advantage, and that will enhance social welfare. This is the famous theory of comparative advantage, proposed by David Ricardo in the nineteenth century and widely cited by the British leadership at the time when dealing with other countries. For the developing countries of the postwar era this argument implied that they had to continue to produce low-value-added and low-priced commodities, whose relative prices are known to decline inexorably, while their consumers must buy finished goods at ever-rising relative prices from abroad – importing them from the largest IMF and World Bank shareholders. Since the well-known long-term trends of falling commodity and rising finished goods prices mean that developing countries will receive ever less for their exports, while having to pay ever more for their imports, they cannot help but become indebted to the rich countries. When debt becomes large, the IMF seems ready to take over the government and arrange for further 'beneficial' market-oriented reforms, such as cutting food subsidies and social welfare, while seizing key domestic assets as collateral for the foreign investors. The outcome has been a significant deterioration of economic performance and standards of living in the Third World.

The free flow of capital was meant to increase prosperity in the Third World. Instead, developing countries have merely become more indebted, spending an increasing amount of their resources on interest and interest-on-interest payments. Often, the interest payments alone are larger than any initial loan received. Furthermore, the liberalization of international capital flows that was strongly urged on developing countries by the US Treasury, the IMF and the other neoliberal international organizations has often produced major economic disasters in the form of balance of payments crises

and currency and financial market collapses, as happened during the Asian crisis or many times in Latin America.

The promise of stable economic growth, without cycles, has also not been met. Economic cycles have not disappeared. On the contrary, there is indication that the former business cycles may have turned into larger boom-bust cycles in many countries. There is evidence that over the past 30 years, financial crises have increased in number and become more destructive and menacing in their amplitude. Despite the declared aim of achieving price stability, stability of economic growth and of exchange rates thanks to neo-classical economics, governments and central banks have failed to deliver.

The structural reforms of the labour markets were meant to increase jobs and prosperity. However, it appears that the benefits of labour market reforms have mostly accrued to the employers and large-scale shareholders – a small minority in any country. Employees today generally have less job security, often less pay or less real purchasing power. Meanwhile, the phenomenon of ‘jobless recoveries’ puzzles observers in many post-reform or post-recession countries, even the US.

The focus of neoclassical economics on the pursuit of self-interest and profits has not helped to protect the environment. The mathematics of compound interest – with interest rates being a key variable in the mainstream representation of an economy – produces pressure constantly to deliver growth. This growth is measured as the gross addition in economic value added as booked in the national income accounts, without netting out the costs of drawing down our (unaccounted) stock of natural assets. Any true cost-benefit analysis must, however, take the environmental destruction and its consequences, including its effect on health and happiness, into consideration. Ever larger parts of the public are becoming aware that the current approach to economics, with minimal government intervention into the workings of large corporations and large-scale shareholders, is producing very costly, often irreparable damage to our most precious asset and the heritage of humankind: our planet.

Neoclassical economics is built on the fundamental axiom that the main motivation and goal of mankind is to accumulate more material wealth. However, scientific studies have demonstrated time and again that this is not what motivates people. The main human motivation is often not economic at all.¹³ To spend less time at work and more time with family is usually found to increase happiness. This is not, however, where neoclassical policy advice has been leading the world. As a result, many of the reforms inspired by neoclassical economics have failed to make people happy. Instead, there is evidence that they have become unhappier as a result: many neoclassical structural reforms have implied an increase in working hours required to maintain the standard of living.¹⁴ There is evidence that both parents of middle-income families in the US now have to work, while they did not have to several decades ago. Educational reform, endorsed by neoclassical thinking,

has saddled students with substantial debts. Psychologists have found that this is a main source of depression among students.¹⁵ Job stability is a main factor determining happiness, according to empirical research. The increasing job insecurity of neoclassical 'flexible labour markets' has thus left substantial parts of society worse off. There is no evidence that the increasing commercialization of television, cinema and the print media has rendered people happier. On the contrary, companies are attempting – often succeeding – in exploiting human weaknesses for their gain, not seldom leaving people worse off. Studies have found that a stable marital relationship is a main determinant of happiness, and, indeed, of longevity and health. However, the commercialization and trivialization of sex outside marriage – another commodity subject to the free market mechanism, according to neoclassical economics – has not had a salutary effect on marriage and thus has not contributed to making people happier.¹⁶

Reflecting public dissatisfaction, the British government has recently declared the goal of creating 'sustainable communities'. Disillusionment with the commercialization and draining of local communities has even prompted business lobby groups to abandon the previous emphasis on bare-bone profit maximization. The president of the CBI employers' body recently lamented in a government-commissioned report that Britain now boasted 'ugly retail parks, isolated schools and hospitals and business parks hermetically sealed from the outside world', where businesses felt no need to provide leadership to the communities they serve.¹⁷ The neoclassical, market-oriented and planning-averse type of policy introduced in Britain since the early 1980s had not taken into consideration the desire of residents to live in a pleasant social setting.

Increased inequality has had an impact on public safety. In some countries, such as the US and the UK, the prison population has increased significantly. The fruits of neoclassical policies have been alienation of long-term unemployed, a feeling of disenfranchisement due to a lack of opportunities to improve one's status and hence a lower level of loyalty to society. Higher crime rates are one outcome, which in turn affects the rest of society negatively – though without showing up as a minus in the national income accounts (greater spending on police, the legal system and prisons, as well as on the military, are recorded as a positive contribution to national income).

Neoclassical economics is built on the premise that individuals care most of all for themselves and act independently of each other. The state of happiness of one is assumed to have no impact on others. Social relationships and the desire of individuals to relate to others and receive respect within social groups are outside the neoclassical model. A growing group of economists, originating in France but quickly spreading across the world's economics campuses, has thus argued that neoclassical economics is 'autistic' – as it has difficulties in recognizing that humans need to relate to others.¹⁸

Neoclassical economics talks about competition as a key mechanism, but at the same time ignores the reality that most mature industries are highly concentrated and dominated by a small number of firms. Some of these firms have become highly influential and it is not clear that the pursuit of their profits increases overall prosperity. This may be most apparent in the case of the weapons and war services industries. Indeed, in a world where a small number of firms or large-scale shareholders maintain a dominant position, and where the neoclassical agenda has severely limited the restraints that governments can place on corporations, it even becomes questionable whether democracy can be maintained, or whether vested interests will not simply 'buy' the politicians (for instance by funding their election campaigns).

Mainstream consumer theory assumes that individuals know everything and face no time constraints on their activities. According to this theory, consumers cannot be duped easily by unscrupulous corporations. But the reality is different, which is why government intervention is often required. The evidence is that consumers are not perfectly informed, hence even the largest supermarket chains get away with misleading pricing of products that costs consumers dearly and earns their large-scale shareholders nice profits purely due to misinformation.¹⁹

Military conflicts have not abated. While the causes may be different in each case, there are also common threads: often, economic inequality, rivalry and competition over limited economic resources, ranging from water to oil, other minerals, raw materials and arable land appear to be fundamental causes of conflict. Whether it was Hitler's declared quest for 'living space' in the East, or Japanese efforts to gain economic autarky and establish an independent economic bloc that could not be blackmailed by outside colonial powers, economic motives have never been absent in warfare. The Middle East, including the occupation of Iraq, may be another case in point. Despite its dominant position, neoclassical economics has not been able to make any positive contribution in this important area. To the contrary, its policy prescriptions, by increasing inequality and strengthening oligopolistic large-scale corporations, may have made matters worse.

On a fundamental level, neoclassical economics talks much about market equilibrium – that state of affairs when demand is said to equal supply. Even many critics of neoclassical economics find the neoclassical case plausible that markets tend towards equilibrium and often can be considered in a state of equilibrium, or at least approaching one. However, for market equilibrium, there are many conditions that must necessarily be fulfilled. Neoclassical economics deals with this by simply assuming them to be fulfilled. Foremost among these assumptions is the requirement that everyone has perfect information of all relevant facts. If this is not true, markets will not be in equilibrium. And then the entire edifice of neoclassical economics is irrelevant. In this case, a quite different kind of economics is required.

The fundamental flaw

A different kind of economics is indeed what many are now demanding. A large number of students have lost interest in neoclassical economics, as they recognize that it has become divorced from reality. While high hopes existed in the 1960s about the ability of mathematical models to explain or forecast economic developments, the business world today does not place great store by economic forecasters. Institutional investors prefer to talk to strategists rather than economists. Even major asset management firms have abandoned taking positions on currencies, for instance, as economics has failed to explain exchange rates. Professional economists working at corporations and financial institutions have long realized that they cannot stick to academic economic models if they want to remain relevant. They have long abandoned them, leaving the academic economists as followers of an esoteric science that has little, if anything to do with economic reality.

Could it be, one hardly dare ask, that we got things upside down? Could it be that many of the world's ills are actually *caused* by the drive to create free markets and by the wrong type of economics? Neoclassical economics has had its chance at improving things. It has failed. The time has come for a new kind of economics.

The critics of neoclassical economics agree that economics should be about economic reality and should be demonstrably relevant to it. This will strike the non-economist as obvious. However, it is not obvious in mainstream economic thinking: the neoclassical school of thought is based on the deductive approach. This methodology argues that knowledge is brought about by starting with axioms that are not derived from empirical evidence, to which theoretical assumptions are added (again not empirically backed), and on the basis of which tools of logic (mathematics) are utilized to prove theoretical results.

There is an alternative approach. This approach examines reality, identifies important facts and patterns, and then attempts to explain them, using logic, in the form of theories. These theories are then tested and modified as needed, in order to be most consistent with the facts of reality. This methodology is called inductivism.²⁰ All the natural sciences and most scientific disciplines use this approach. Inductivism is not only dominant in science, it also describes how we learned as infants about this world. When we touched the hot stove in the kitchen and burnt our fingers we learned inductively that doing so again would also hurt again. When men saw the sun 'rising' in the East several times, they induced that it would continue to do so in the future. Inductivism is not only scientific, it is also common sense. This is why before the arrival of neoclassical economics (and its nearly identical historical predecessor, classical economics), the majority of economists quite naturally followed the inductive approach.²¹

Neoclassical economics turns out to be the one school of thought within the discipline of economics, indeed one of the very few intellectual disciplines

in general, that rejects the inductive approach favoured by scientists, and prefers deductivism. It must be considered a unique phenomenon in the history of thought that the originally marginal and eccentric deductive approach to economics has today become the mainstream school of thought.

Unhindered by economic reality, deductive economists can start with their preferred axioms, which do not need to be supported by facts – such as the axiom that individuals only care about the maximization of their own material benefit. Additional unrealistic assumptions produce the theories that are so removed from reality. While this is certainly allowed and may be useful as an exercise in logic, the theories, which are specific to the hypothetical environment created by the assumptions, are then used to advance policy recommendations. By this stage, no further mentioning is made of the assumptions necessary for the validity of the argument. The jump from the theoretical and hypothetical models to actual, supposedly workable policy advice is not usually explained. It is striking how seamlessly neoclassical economists have bridged the gap from their wholly fictional world of unrealistic models to recommendations of policies that actual politicians are supposed to implement in reality.

Obfuscation has certainly played a role: to hide the fact that much of theoretical mainstream economics consists of irrelevant existence theorems and axiomatically asserted ‘findings’, impenetrable jargon was used. It seems that lack of content was covered up by shrouding models in ever-more advanced mathematics that awes mathematicians and that makes even experts reluctant to criticize.²² Many observers were blinded by what masqueraded as science, when, by comparison, it would be unthinkable for physicists to suggest that one should assume the laws of physics were suspended – for the sake of argument and to see what type of interesting model one gets – and then proceed to act on these findings in this actual world, where the laws of physics do apply. Political supporters of the conclusions and policy recommendations of neoclassical economics (these are often the economists themselves) are guilty of failing to point out the highly unusual conditions necessary for their theories and recommendations to be valid. Abstract models that rely on unrealistic assumptions and apply only to a theoretical dream world are prone to be usurped by interested parties and thus may simply become excuses for advocating policies preferred by some. Thus deductivism is certainly useful for those who wish to support preconceived ideas with the cloak of being ‘scientific’. Yet few scientists would consider purely deductive approaches scientific.

It can be seen that the deductive methodology is the fundamental reason why economics could end up so far removed from reality. If a gap between reality and theory is pointed out (by some pesky inductivist), deductivism does not require neoclassical economists to change their theory. Instead, deductivists are entitled to demand that reality be changed to suit their theory (which is correct by axiom). If the long list of assumptions required

for neoclassical models to work – perfect information, complete markets, no government intervention, perfect competition, no increasing returns to scale – does not seem to reflect reality, it is logically consistent for deductivists to suggest that structural changes be implemented so that reality moves closer in line with their models. The deductive approach also explains why the increasing dominance of the neoclassical approach resulted in a relegation to secondary status of those branches of economics that do look at reality, such as applied economics, economic history, political economy and regional economic studies. They dealt with uncomfortable facts and thus their influence had to be reduced so as not to threaten the deductive mainstream.

The main contribution of neoclassical economics

Nevertheless, despite its deductive methodology and unrealistic assumptions, neoclassical economics, like its predecessor, classical economics, has not been useless. To the contrary, interpreted correctly, it can be seen to have provided a valuable service to mankind. To recognize this contribution, it is necessary to recall what neoclassical theories actually say. Many observers, and even many economists, believe that neoclassical economics has proven that only free, unimpeded markets and free trade can lead to economic success, while government intervention is doomed to inefficiency and failure. This is not in fact true. Instead, neoclassical models have demonstrated quite precisely that free markets and free trade *would only then* lead to optimum welfare, and government intervention *would only then* be an inefficient distortion of the economy, *if and only if* we lived in a world where everyone had perfect information about everything, and a number of other stringent conditions (such as zero transaction costs, constant returns to scale, complete markets, perfect competition, and so on) were met. Likewise, neoclassical economics found that liberalization, deregulation and privatization *would only* improve economies in situations where everyone had perfect information (and transaction costs are zero, there are constant returns to scale, complete markets, perfect competition, and so on).

The most familiar diagramme in economics shows a downward-sloping demand curve and an upward-sloping supply curve. It is said that prices adjust so that markets clear at the point where the two curves cross – and thus markets are in equilibrium or a state approaching it. In actual fact the model says no such thing. It has demonstrated that demand will equal supply *if and only if* everyone had perfect information. The string of highly restrictive and unrealistic assumptions on which the neoclassical models are based are like the uncomfortable small print in a contract that gets easily overlooked. But they have far-reaching implications. Thanks to the rigorous neoclassical models we have learned just how stringent and how exceptional the necessary conditions are in order to obtain market equilibrium, or to

obtain the result that free markets or free trade produce an optimal resource allocation. The question is now whether these conditions or at least some of them, could ever hold to be true. If not, then neoclassical economics has rigorously proven to us that free markets and free trade *cannot* be expected to result in optimal resource allocation, maximum welfare or even simple market clearing. In this case, neoclassical economics has proven that deregulation, liberalization and privatization *cannot* be expected to improve anything – which may well explain why the numbers of economically disenfranchised has increased and globalization à la Washington consensus is being increasingly opposed. More than that, if markets do not actually clear, economies would function quite differently from what we have been told by the mainstream textbooks for decades. A very different kind of economics would be required to explain economic reality and help us improve it.

Probably the most important of the premises needed by neoclassical economics for its tenets to hold is the assumption of perfect information. It is so crucial, because even simple market clearing – a very fundamental tenet of much of modern economics – requires it. Joseph Stiglitz, who became the most influential economist to turn against mainstream neoclassical economics, started out his research by ‘relaxing’ just this one assumption that was presented as fairly innocuous by neoclassical models. Many trained economists had become so familiar with the assumption of ‘perfect information’ that ‘relaxing’ it seemed an unusual thing for them.

Since the fiction of ‘perfect information’ is a standard assumption, most economists have become thoroughly hardened to its enormity. To assume perfect information is a monstrous distortion of reality. It creates a fictional world that is not just a little different from reality, but one that is diametrically opposed to what constitutes the very essence of the world we live in. All economic activity is based on the very fact that information is not perfectly and equally distributed. To realize the far-reaching implications of the assumption of perfect information, consider what a world would look like if the neoclassical assumption of ‘perfect information’ indeed held true.

If there was perfect information ...

- there would not be meetings at companies, government agencies and other institutions. In actual fact, much activity at any organization is taken up by holding meetings in order to inform, communicate, discuss, decide, motivate, and so on;
- there would be no need for firms to exchange information. In actual fact, gathering information is crucial for businesses. Since medieval times, trade fairs, product shows, conferences, symposia and events are well-documented as important engines of growth and innovation: such growth depends on information flows, on firms getting to know other firms, meeting customers, and so on;

- there would be no books, no newspapers, no news programmes on TV. Reuters and Bloomberg, even the internet, would not be viable. Customers would not pay to obtain information about what they know already. The large media conglomerates, such as Bertelsmann or AOL Time Warner, would not exist;
- analysts would not have to spend hours poring over corporate figures to analyse the state of a company. All the multitude of data would not only be instantly known, people would also have the requisite knowledge to interpret them correctly;
- there would be no corporate accounting scandals, which surprised investors, regulators and, on occasion, accountants alike and resulted in multibillion-dollar losses for investors. The scandals include Enron, WorldCom, Tyco, Parmalat, and so on;
- there would have been no surprise at former NYSE chairman Richard Grasso's enormous pay cheque, which became a scandal when it became widely 'known'. It had been agreed much earlier and was no secret;
- there would not be any secret services, indeed there would not be any secrets – political, military, commercial or otherwise. Instead, secret services command multibillion-dollar budgets;
- actors would not be able to become politicians. In reality, actors have become governors, even presidents of major countries. The fact that they are known to many people is often sufficient for them to get elected to highest office. This demonstrates the enormous value of information and of being known. It seems to beat any other quality that politicians might have. In a world of perfect information this would be unthinkable;
- all products would be equally well-known and easily available to consumers. In reality, the biggest bottleneck for sellers of new goods and services is to get their product and its availability known to potential buyers. This is why distribution channels are so important and valuable for businesses. Shelf-space in shops is limited. The market for prime shelf-space is rationed. Psychologists are paid to suggest which places are more likely to be spotted and which arrangements in shops are more likely to trigger purchases. None of this would be possible or necessary in a world of perfect information. In bookshops those books for which the publishers have paid large advances appear in prominent places and stay on shelves much longer. Others are in remote corners, with only one copy available for only a limited time, or not in the shop at all. Which book will get bought? Is it really the quality of the book that decides it? Or the advertising and positioning in the bookshop? The internet has not changed this reality: the profusion of websites means that putting up one's product on the internet does not ensure any sales or even hits. The time during one day is limited (rationed). So is the time each computer user sits in front of a screen. Thus only a limited number of websites can appear before the eyes of each computer user. While the supply of

websites is very large, the effective demand for them is much smaller: the market for website watching is rationed, like every other market;

- there would be no need to learn different languages, mathematics or any subject at all – least of all economics. People would know the true economics already! There would be no need for education and training, no need for schools and universities, no need for companies to spend on training their staff and acquire further technical skills. The money spent by India over several decades to achieve a high level of education (government intervention often criticized by neoclassical economists) would have been unnecessary and today African countries would be as much leaders in software development as India. There would be no need to learn local languages and customs for a firm entering a different market. There would be no need for any expertise at all;
- there would be no need to hire anyone except new graduates, since work experience would count for nothing. However, wages as determined by the labour markets indicate that work experience is valued by employers, as inexperienced new graduates command lower wages in the market. Despite being the cheapest offering on the labour market, firms choose to hire only few new graduates, instead relying mostly on more expensive staff;
- there would not be any advertising or the attempt to build brands. The existence of brands is a reflection of imperfect information: consumers cannot be sure whether a product will fulfil its claimed purpose, whether it is faulty or whether it will have a sufficiently long lifespan to make the purchase worthwhile. The only way around this information problem is for producers to build a reputation for high quality, based on the past track record. Once this has happened, consumers will have confidence. This was realized in early medieval times in Europe, where trade guilds were created and implemented strict quality control. Essentially they were cartels that forbid people from engaging in their trade, except with the permit from the guild, which would only be granted after examinations and quality controls. As a result, many European cities developed a high reputation for a specific product, which in turn helped convince customers to buy their products as they inspired confidence. If knives or other steel equipment were stamped as originating from Sheffield, Solingen or Toledo, customers would, based on the reputation built up over the years, have confidence in the product. This means that each product carries a reputation externality with it, which the price does not reflect, and which each individual producer may not even consider. The significant sums spent on advertising by corporations are evidence of how important information imperfections are and how important it is for firms to be known and to have a good reputation;
- there would not be money. Barter proved cumbersome in the absence of the coincidence of wants, if one did not know exactly who might wish to buy which amount of one's produce. Money was an answer and its existence demonstrates that information is not perfect and never has been;

- there would be no technological innovation, and hence there would be no real growth. Empirical studies, including by Solow (1957) have shown that much of economic growth is accounted for by technological innovation. However, such innovation is the result of improved recipes (Romer, 1990) to rearrange already given resources. In other words, growth is due to information. Without new information, there could not be real growth. To assume perfect information means that all information is already available and equally disseminated. There are two levels at which this is relevant: perfect information means that future technology should already be known today. Secondly, if we accept imperfect information of future technologies, then the dissemination of this new technology may occur imperfectly – as indeed patent laws ensure. Either way, imperfect information exists. In reality, one of the most important investments by firms is on research and development of new recipes, that is, new information, about what new products could be made, how new goods and services could be assembled, and so on. Once such new information has been generated, firms will try hard to keep it secret and prevent it from falling into the hands of competitors. Patents represent one way to maintain an information advantage temporarily. Secrecy is another. Anyone who has worked in a firm will know that corporate secrets are important and often protected explicitly in employment contracts;
- there would be no talk about or need for ‘technology transfer’ to developing countries. All technology would already be known;
- there would be no headhunters: financial sector headhunters usually charge 30% of the first year’s pay package of the person they have successfully introduced to a firm. With a modest start-up annual package of US\$100,000 base salary and an annual bonus of US\$200,000, this would amount to almost US\$100,000 just for one deal. There are many headhunting firms, in many countries. None of these could exist if there was perfect information;
- there would be no export/import firms, which capitalize on their knowledge of another country. In reality, knowledge of language, customs, laws, taxes and customs duties is worth money. That’s why such firms can charge a commission, which usually continues as long as the goods are exported or imported;
- there would be no literary agents. They know the publishers and the names of the suitable editors, usually because they worked as editors at publishers before. They then sell their knowledge, charge 10% or 15% (for overseas deals, when sub-agents are involved, 20%) of all monies. There is also the reputation aspect, another result of imperfect information: agents act as a screening device and try to build up a good track record of books, so that editors at publishing houses will trust their recommendations. If there was perfect information, editors would not need that service, neither would authors;

- no activity could exist, which is based on an information advantage or the provision of specialized knowledge of a trade, for which commissions or fees are charged. All these are based on asymmetric information: the counterparties do not know each other, or the details of the transaction, but the intermediary knows. If we knew where the right apartment is becoming available, or if we knew which editor at which publishing house might like our book, or if we knew which wholesaler or distribution chain in another country might be suitable for and interested in our product, would we pay the 3%, 15% or sometimes higher agency fees? If we start up a hedge fund, we will need to raise money. Would we offer up to 50% of all the revenues to the fund 'introducer' – agents who market the fund to their contacts – as is often happening, if we knew the names and contact details of those pension funds, funds of funds or family offices that are interested in our hedge fund?
- entire industries would not exist, such as
 - the entire financial sector, including banking, fund management, investment advisers and stockbroking (if investors knew about who needed money, they could invest directly without financial intermediaries), ratings agencies as well as stock market index compilers and disseminators of such indices
 - the entire telecommunications and internet industry, which works on relaying information
 - the consulting industry
 - accounting and auditing firms (the accuracy or inaccuracy of accounts would be well-known)
 - scientists, teachers or instructors
 - lawyers, who inform about laws and how to proceed with defending one's rights
 - doctors, who use their knowledge to diagnose diseases and prescribe suitable therapy
 - tax advisers and qualified accountants, who perform the service of advising on ways to account for transactions appropriately and minimize taxes; with perfect information unqualified clerks could just perform the obvious duties of inputting data into spreadsheets
 - police officers working on solving crimes
 - economists.

The list could go on. If there was perfect information, people would not spend much time or money on gathering and relaying information. Monitoring an average day of an average employee should show that usually the majority of our time is spent on this activity: in the morning, reading the newspaper, checking the mail, attending the morning meeting, checking email, checking a few internet websites, researching in libraries, looking up company reports, looking up files, searching for files or searching for

information, calling up colleagues and contacts to find out something, receiving enquiries from potential customers, colleagues, subcontractors, suppliers who ask many questions, meeting colleagues for lunch to discuss matters, visiting potential customers to explain products and services, visiting suppliers to clarify requirements and specifications or to avoid misunderstandings, having business dinners to facilitate communication, going home and seeing advertisements on the train, watching the news or commercials on TV, asking the spouse how their day was ...

It is no exaggeration to say that each one of us spends most of our time gathering, analysing, disseminating information and communicating with others. It is the very essence of our activities. It is the essence of commercial activity and hence of what happens in an economy. To assume perfect information is to assume that none of this happens.

In the real world people and companies make money *because* others do not know everything. The information that others do not have is their advantage. It is their value added. Asymmetric information is not an eccentric exception to models, as economics textbooks make it appear. Instead, it is the very essence of business and economic activity. Where information asymmetries are largest, the profits are largest. This is why in transparent and highly competitive industries profits are smaller. They are largest in the financial sector, because least is known about the actual working of financial markets and economies – partly thanks to neoclassical economics.

Information is at the very heart of the economy. Its value lies precisely in the fact that it is not perfectly and symmetrically distributed. To assume perfect information means to assume away the most crucial aspects of the reality we live in. It is tantamount to assuming that the moon is made of cheese, and then building theories on this premise.

Despite these facts, the majority of economists has for several decades happily worked on the assumption that there is perfect information. This is particularly worrying, since this and other assumptions are crucial to obtain the conclusions emphasized by the neoclassical theories. What should be of interest to anyone is the question of what happens when we acknowledge the reality of pervasive information imperfections. Neoclassical economics has made little contribution to this important question.

But there are other necessary assumptions to obtain the neoclassical conclusions, and they are equally unrealistic. Most models assume perfect competition, despite the reality of oligopolies and monopolies in most mature markets. Most models ignore the importance of increasing returns to scale (by assuming constant or diminishing returns to scale), when there is evidence that scale economies are pervasive and important for much economic activity. Another necessary assumption for neoclassical theories to work is the assumption that resources are always fully employed. This not only defies the reality of markets and economies, but also the facts of human nature: on an individual level, neoclassical economics assumes that individuals

always use their talents and abilities, always work at ‘maximum capacity utilization’. In reality, humans are not machines. They need to be motivated. If they are not sufficiently motivated, they may not put as much effort into their activities as might theoretically be possible. Once this reality is acknowledged, the subject of how humans can be motivated becomes of crucial importance. This is where rules and norms, social institutions and hierarchies come into play, and the question of how such incentive structures should be designed in order to elicit maximum potential. One only needs to consider how motivation can influence physical performance in the case of sports, and the role of coaches. Similarly, soldiers, as well as indeed anyone who is part of an organization or hierarchy, will be subject to motivational policies implemented in order to obtain the type of performance desired. Indeed the motivation – and also manipulation – of people is a major activity engaged in by large industries. Incentives and the type of information provided are used as tools to get people to do what is desired by others.²³

Another area where assumptions of traditional economics are crucially flawed, thus compromising the entire model, is the theory of the consumer. Individuals are assumed to be only motivated by their own self-interest and individual utility functions are assumed to be independent. The present book is focused on macroeconomics and this issue will thus remain outside its scope. What can be said here is that this model of the individual also has little to do with reality. Individuals are born into society and mostly are interested in relating to others in society. Their status and ranking in society is an important motivation that has been ignored by mainstream economics. An inductivist approach would form a model of individual behaviour based on reality. Only then are conclusions likely to be relevant and accurate. The realistic study of incentives leads to the conclusion that institutions, hierarchies and ranking are important. Thus incentive structures that are designed to increase motivation take this into consideration. Institutional design is therefore a crucial paradigm in economics that has so far been neglected by the mainstream. As we will find, credit creation is another.

The reality of human nature, the reality of imperfect information, the reality of increasing returns to scale, the institutional reality of financial markets, the reality of large-scale businesses, all must be possible in the new economics, if not integral features of economic models.

Ingredients of the East Asian economic ‘miracle’

Since economic activity is always the result of human activity, this means that the design of rules and settings, within which markets are embedded, becomes a powerful tool of government intervention to enhance economic

performance successfully. It is one that is ignored by the mainstream economics paradigm. But it is one that was at the heart of the East Asian economic success, including Japan's.

With imperfect information, markets do not clear. This includes the market for money and credit. Markets that do not clear are rationed. Rationed markets are determined by quantities, not prices, according to the 'short-side principle': whichever quantity of demand or supply is smaller will determine the outcome. The limited liability of directors within corporations means that incentives are skewed such that entrepreneurs who borrow money may gain disproportionately compared to their potential downside. This has been one of the driving forces of capitalism. Concerning the market for money and credit, it means that demand is likely to outstrip supply, leaving it supply-determined. This, then, becomes the central focus of our investigation: the institutional setting of the supply of money and credit and its implication. For this purpose, inductive research into the development and operation of the banking system is necessary. It is found that banks are truly special, although their unique feature has not been recognized by mainstream economics, or by banking and finance textbooks.

In rationed markets, an allocative decision is made. Thus market rationing provides a justification for government intervention to ensure that resources are allocated such that welfare is enhanced. However, heavy-handed government intervention is unlikely to work. The East Asian economic success story in general and the Japanese in particular were based on clever government intervention, which took mainly two forms: institutional design to shape the incentive structure and direct allocative intervention largely limited to one specific area, namely the credit market. Here, a powerful credit control tool was used that remains largely unknown, despite the fact that it has been at the heart of the East Asian economic miracle, and indeed at the core of the success of a number of other economies, including Germany.

Sometimes the success of the East Asian 'miracle' economies is claimed by neoclassical economists as evidence of the success of market-based capitalism and hence of the neoclassical paradigm.²⁴ This, however, is an empirical question: did the Japanese and East Asian policies originate from neoclassical policy advice? Or did they originate from theories quite explicitly and fundamentally opposed to the neoclassical approach?

But just when more present-day economists are beginning to recognize some of these issues in the latest, revised theories, Germany and Japan are in the process of adopting the British and US neoclassical model through liberalization, deregulation and privatization. If this process continues, shareholder fundamentalism will reshape society and increase the share of economic activity devoted to profit-seeking by shifting ownership certificates from A to B. After all, adopting US-style capitalism means that Germany and Japan are importing its disadvantages and social problems.

If the structural reforms in Europe and Asia continue, there may soon be less talk of an alternative model to the Washington consensus policy package, as the most outstanding examples of successful development policies (as opposed to those favoured by the international institutions) will have been dismantled. Then, neoclassical economics may remain the entrenched and dominant economic ideology. This is another reason why it is high time to re-examine the neoclassical paradigm, especially in the context of the Japanese economy, and test whether an alternative approach can be found that is empirically superior.

Joseph Stiglitz has called for a new paradigm in economics. He has laid the foundations and done much to make the world aware of the problems with mainstream economics. The present book merely represents another step towards laying the groundwork for the new paradigm in the area of macroeconomics. Much work remains to be done in this exciting and vast research programme on a new kind of economics.

Work on the new kind of economics must be rigorously tested, using the most difficult challenges to macroeconomics. One of the most powerful empirical challenges has been posed by Japan, which is where many of the empirical data for the present book are drawn from. The new economics should not only explain whatever the old theories could explain. It should also be able to explain the many 'anomalies' that the previous neoclassical paradigm could not account for. Finally, the new kind of economics should offer solutions – workable, actual solutions – to many of the world's problems. For, as John F. Kennedy said, man's problems are manmade. They can therefore also be solved by man.

Index of Authors

Compiled by Sue Carlton

- Agarwal, Rajshree 150–1
Allen, Franklin 150
Allen, Roy E. 183
Andersen, Leonall C. 247
Aoki, Masahiko 150
Arestis, Philip 49, 67, 237
Asako, Kazumi 136–7
- Balassa, Bela 141
Balino, Tomas 152
Barran, F. 66
Barro, Robert J. 47, 194
Basu, Susanto 81
Bayoumi, Tamim 68
Benassy, Jean Pascal 194
Berger, Allen 68
Bernanke, Ben S. 56, 64, 66,
67, 76, 174–5, 177, 308
Biefang-Fisancho Mariscal,
Iris 183, 184
Black, F. 194
Blanchard, Olivier 67, 149, 195
Blinder, Alan S. 44, 66, 246, 254, 257
Brown, Harry G. 174, 181
Brunner, Karl 61, 63
Burnside, Craig 81
- Calomiris, Charles W. 70
Caprio, Jerry 151
Cargill, Thomas F. 50
Carlson, Keith M. 247
Caves, R. 150
Cecchetti, Steven G. 267,
307, 336
Christ, Carl D. 44
Claessens, Stijn 153, 297, 303, 305
Corsetti, Giancarlo 304
Cramer, J.S. 183
- Davis, E.P. 152
Detken, Carsten 226
- DeYoung, Robert 68
Diamond, Douglas 64, 66
Dotsey, Michael 271
Driscoll, John C. 66
- Elston, Julie Ann 150–1
Engle, R.F. 57
- Fama, Eugene F. 65, 66,
150, 161
Faruqi, Shaki 153
Fischer, Stanley 67, 150, 195
Fisher, Irving 163, 174, 181–2,
187, 246–9
Fohlin, Caroline 151
Forder, James 125
Forte, Francesco 241
French, Kenneth R. 136
Friedman, Benjamin M. 66, 265
Friedman, Milton 61, 65, 123,
126–7, 182, 183, 187, 247,
248, 259, 321, 322,
325, 337
Fry, Maxwell J. 153
Fukao, Kyoji 82
Fukao, Mitsuhiro 69
Fukui, Toshihiko 294, 307,
310, 311, 312
- Gertler, Mark 64, 66, 67, 75,
76, 189
Gilchrist, Simon 64, 66, 67, 75
Goldfeld, Stephen M. 182
Goldsmith, Raymond W. 153
Goodhart, Charles A. E. 132,
162, 176, 179, 180
Gordon, D. B. 112, 143, 145
Gordon, R. J. 81
Gowland, D. 183
Greenwald, Bruce C. 326
Grossman, H. 194

- Guender, A. 66
 Gurley, J.G. 153, 189
- Hahn, Albert 178, 189
 Hamada, Koichi 308
 Hämäläinen, Sirkka 316
 Handa, Jagdish 181, 247
 Hansen, B. 44
 Haubrich, Joseph G. 66
 Hayami, Masaru 103, 104, 309–10, 311, 312, 336
 Hayashi, Fumio 56, 80, 82
 Hendry, David F. 224, 229, 243, 321–2
 Hildebrand, Philipp 317–18
 Hinds, Manuel 152
 Hoover, Kevin D. 57
 Horiuchi, Akiyoshi 50, 270, 281–2
 Hoshi, Takeo 77, 91, 94, 271, 287
 Howells, Peter 183, 184
 Hubbard, Glenn R. 66
 Hutchison, Michael M. 237
- Ichikawa, Nobuyuki 308
 Ikeo, Kazuhito 56, 80
 Ito, Takatoshi 41, 42, 43–4, 52, 54
 Iwata, Kikuo 61–2
- Jaffee, Dwight M. 67
 Jordan, Jerry L. 247
 Jorgenson, Dale W. 82
 Judd, J.P. 182
- Kakes, Jan 66
 Kaldor, Nicholas 57
 Kashyap, Anil K. 64, 65–6, 69, 70, 77, 91, 151
 Katz, Richard 56
 Kawai, Masahiro 141
 Keran, Michael W. 247
 Keynes, John Maynard 67, 118, 163, 174, 182, 184, 187, 189, 196, 216
 Kindleberger, Charles P. 152, 238–9
 King, Stephen R. 66
 Kiyotaki, Nobuhiro 76
 Klingebiel, Daniela 151
 Koo, Richard 41, 42, 57, 141, 240
- Kouri, Pentti J.K. 238, 243
 Krugman, Paul 29, 33–4, 47, 51–3, 55–6, 61, 62, 69, 80, 91, 310, 336
 Kuhn, Thomas S. 156–7, 322
 Kumar, Manmohan S. 52
 Kure, Bunji 269, 270
 Kuttner, Kenneth N. 66
- Laidler, David 182
 Lakatos, I. 157
 Law, John 172, 188, 207
 Leeper, E.M. 112, 143, 145
 Lerner, Abba P. 44, 254
 Levine, Ross 153
 Lown, Cara S. 66
 Ludvigson, Sydney 68, 257
- McCallum, Bennett T. 61
 McKinnon, Ronald I. 54, 153
 Malinvaud, E. 194
 Mateut, Simona 70
 Matsuda, Kunio 29, 33
 Matsushita, Yasuo 184
 Meltzer, Allan H. 61, 62, 63, 68, 70, 174
 Mieno, Yasushi 294, 309, 311
 Mill, John Stuart 156
 Minsky, Hyman P. 152
 Mizon, G.E. 243
 Moersch, M. 66
 Moore, Basil J. 58, 59–61
 Moore, John 76
 Motohashi, Kazuyuki 82
 Muellerbauer, John 194, 229
 Murphy, Antoin E. 229
- Nagatani, Yasutaka 41
 Nelson, Robert H. 6
 Newcomb, S. 181
 Niggle, C.J. 183
 Noguchi, Yukio 136
 Noland, Marcus 141
- Ogawa, Kazuo 76–7
 Okazaki, Tetsuji 150
 Okina, Kunio 58, 60, 61, 125, 310, 311
 Okuno-Fujiwara, Masahiro 150
- Patrick, Hugh T. 94, 269, 270, 279, 292
 Perez, Stephen J. 57

- Phillips, Chester A. 128, 174, 176
Pierce, James L. 337
Pigou, Alfred C. 182
Pilat, Dirk 81–2
Polak, Jacques J. 215–16
Pollexfen, John 188
Polo, Marco 165–7
Poole, William 61
Porter, Michael G. 238, 243
Portes, Richard 194
Posen, Adam S. 41, 42–3, 312
Poterba, James M. 136
Prescott, Edward C. 80, 82
Przeworski, Adam 297
- Quandt, Richard E. 194
- Ramey, Valerie A. 66
Renelt, David 153
Rhodes, James R. 271, 291
Richard, J.-F. 224, 321
Romer, C.D. and D.H. 66
Rosen, Harvey S. 194
Russell, T. 67
- Santomero, Anthony M. 150
Sawamoto, Kuniho 308
Sawyer, Malcolm C. 49, 67, 237
Scadding, J.L. 182
Schumpeter, Joseph A. 161, 163,
165, 178–9, 188–9, 211, 214
Schwartz, Anna J. 126, 182
Selden, R.T. 183, 184
Shaw, Edward S. 153, 189
Sheard, Paul 150
Shimizu, Yoshinori 147–8
Shirakawa, Masaaki 309, 310, 311
Smets, Frank 226
- Solow, Robert M. 44, 246,
254, 257
Spindt, Paul A. 183, 184
Stein, Jeremy C. 64, 65–6
Stiglitz, Joseph E. 7, 20, 28, 33, 67,
158, 195, 198, 258, 305, 326
Stone, Courtenay C. 183
Sundararajan, Vasudevan 152
- Taylor, J.B. 49
Thornton, Daniel L. 65, 66, 183
Thornton, Henry 188
Threadgold, Andrew R. 60
Tobin, James 194, 240
Trichet, Jean-Claude 316–17, 320
- Udell, Gregory 68
Ueda, Kasuo 54, 61, 63, 141, 238
Uekusa, M 150
- Vittas, Dimitri 153
Vreeland, James Raymond 297
- Walker, W. Christopher 47
Weberpals, Isabelle 55
Weiss, Andrew 67, 195, 198
Werner, Richard A. 50, 183, 185,
203, 243, 254, 320
Wicksell, Knut 178
Willett, Thomas D. 241
Wilson, D. 56
Wray, Randall L. 254
- Yamaguchi, Yutaka 308, 311
Yoshida, Kasuo 45
Yoshikawa, Hiroshi 58, 59
Yoshino, Naoyuki 271, 291
Yoshitomi, Masaru 41

Index of Subjects

Compiled by Sue Carlton

- Africa, and World Bank/IMF programmes 12
- Alexandria 164
- Anti-Monopoly Law 99
- Argentina
 - bank deregulation 231
 - foreign ownership of banks 304, 305
- Aristotle 321
- Asia
 - financial crisis 7, 151, 153, 305, 317
 - and World Bank/IMF programmes 12
- asset inflation (asset price bubble) 137–8, 226–30, 267, 323, 339
- in Japan 232–7, 238
- Association of Payments Clearing Systems (APACS) 184
- asymmetric information 25, 64–5, 150
- autoregressive conditional heteroscedasticity (ARCH) 221, 284
- autoregressive distributed lag (ADL) model 222–3, 244, 282
- Aznar, Jose Maria 4

- bad debts 11, 230, 264–6, 267, 301, 302, 307, 323
 - types of 299
 - writing off 264, 294, 299, 302, 303, 307
- Bank of Amsterdam 173
- Bank of England 173
- Bank of Japan
 - accountability and transparency 293–4, 319, 337
 - and bad debt problem 265–6, 294, 299
 - ‘BoJ Theory’ 60, 61–2, 125
 - and credit controls 268–94, 305, 307
 - see also* window guidance
 - and credit creation 263–4
 - credit statistics 203, 234, 281
 - and endogenous money view 58–61
 - and foreign exchange intervention 264
 - and government borrowing 39
 - independence of 39, 50, 97, 293–4, 337
 - and inflation targeting 53
 - and monetary policy 49–50, 54, 263, 307–13, 320
 - monetary targeting 63
 - and moral hazard principle 265–6, 294
 - power of 336
 - and structural reform 33, 97, 98, 309–13
- Bank of Japan Law 97, 313
- bank lending 11, 143–8, 176, 267–94
 - at interest 168–70, 172, 228
 - and collateral 227–9, 231, 234, 306, 323
 - government guarantees 302
 - informal guidance 268–70
 - parsimonious model of 282–3
 - predatory 306
 - risk aversion 11, 230, 264, 267, 302
 - shares by type of bank 289
 - speculative 203, 211, 226–7, 228–30, 231
 - see also* credit creation
- banking crises 7, 151–4, 180
 - and banking reform 226, 237, 297–301, 303

- banking crises – *continued*
 causes of 230–2, 305, 317
 prevention of 232
 and structural reform 312, 318, 319
see also asset inflation
- banking reform 152–3, 226, 237,
 297–306
 and capital market reform 300–1
 growth-consistent 301–3, 305–6
 traditional approach
 to 297–301, 304
- bankruptcies 30, 88, 151, 300, 303,
 305, 315
- banks/banking
 accountability 306
 and credit allocation 214–17
 and credit creation 174–80, 189,
 264–5
 deregulation 231–2
 and fallacy of composition 228
 foreign ownership of 304–5
 funding wars 164
 history of 162–71
 and macroeconomic
 performance 152–4, 180
 modern banking 171–2
 and moral hazard principle 265–6,
 267, 294, 297
 role in economy 11, 149–51,
 161–2, 163, 171, 180, 194–5
see also bank lending; banking
 crises; banking reform;
 central banks
- 1988 Basle Accord 300
- Basle capital adequacy
 framework 298, 300, 302–3
- Basle Committee on Bank
 Supervision 300
- Basle II 300
- bills of exchange 172, 173
- BIS (Bank for International
 Settlements) 4, 69, 300
- ‘BoJ Theory’ 60, 61–2, 125
- bond issuance 39, 44, 45, 255–7,
 260, 302
- Brazil, bank deregulation 231
- Breusch-Godfrey LM test 221, 284
- Broad Liquidity 129
- Bundesbank 131, 313–16, 317
- Bureau of Labor Statistics 80–1
- bureaucracy, and
 responsibility 124–5
- Caesar, Julius 164
- California, Japanese investment 140
- Cambridge equation 116,
 182, 247
- capital adequacy rules 298, 300,
 302–3
- capital flows 139–42, 157
 determinants of 238–45
 econometric model of 243
 free flow of capital 13–14
 parsimonious model of 243–4
 portfolio model of 238, 243
- cartels/cartelization 10, 96,
 99–101, 231
- central banks 171
 accountability and transparency 320,
 336, 340, 341
 and bad debt problem 264–6
 and conflict of interests 337–9
 and credit creation 179–80, 254,
 261–2, 263–4, 301–2
 and direction of credit 215, 216,
 231, 268–70, 305, 339–40
see also window guidance
- encouraging foreign investment 218
- and fiscalism 124–5, 246
- and foreign exchange
 intervention 264
- independence 257, 336,
 337–8, 340, 341
- and moral hazard
 principle 265–6, 294
- power of 336, 337
- and structural change 313–19
- and velocity instability 131–2
see also Bank of Japan
- Central Statistical Office
 (CSO) 183, 184
- Chile 231, 303
- China
 credit controls 324
 economic performance 7
 and history of banking 164,
 165–7, 173
 paper money 165–7, 173
 reality-based economics 335
- Chow tests 223, 288

- classical school of
 - thought 114–18, 333
 - and fiscal policy 115
 - and monetary policy 115–16
 - policy advice for Japan 118
- Coggan, Philip 29
- collateral 227–9, 231, 234, 306, 323
- Columbia Pictures 140
- communism, fall of 5, 6
- comparative advantage theory 13
- competition 16, 92
 - perfect 25
- composition, fallacy of 228
- compound interest 168–70, 228
- Constantinople 164
- consumer price index (CPI) 88, 89, 108, 134, 282
- consumers 16, 26
- credit
 - allocation 214–17, 339, 340, 341
 - credit controls 215, 216, 237, 268–70, 339–40
 - see also* central banks, direction of credit; window guidance
 - demand for 194–6, 197, 198
 - endogenous 57, 59–60, 67, 194–5, 198, 199, 221
 - rationing 194–9, 214–15, 231
 - see also* ‘credit crunch’; credit view, credit rationing argument
 - and research and development 211–12
 - superexogenous 224
 - see also* disaggregated credit model
- credit creation 174–80
 - and asset inflation 226–7, 323, 339
 - and bad debt problem 299, 301, 302, 307, 323
 - and banking reform 301–3
 - and banking sector deregulation 231
 - and capital outflows 238–9, 240–1, 242, 243–5
 - consumptive 211, 324, 339
 - definition of creation 176
 - disaggregation of 209–11
 - and economic recovery 233, 253–5
 - and growth 207–8, 211–14, 217, 223–4, 225, 314–15, 318, 340
 - history of 172–4
 - impact on transaction volumes 188, 207, 208, 209
 - and imperfect information 303
 - and inflation 208, 209–10, 339
 - and investment 192
 - and measures of effective money supply 190–2
 - and monetary policy 262–3
 - and money creation 258–9
 - and nominal GDP growth 207–25, 247–53, 261, 298
 - potential of 340
 - price impact at full employment 208–9
 - price impact below full employment 209
 - productive 211–14, 216, 302, 323–4, 339, 341
 - and recession 298, 299, 301, 307
 - speculative 203, 209, 226–7, 228–30, 231, 232–7, 299, 323, 324, 339
 - see also* bank lending
- ‘credit crunch’ 11, 68, 70, 150, 153, 199, 230, 232, 300–1, 315, 323
- credit view 64–77, 91, 153, 162
 - balance sheet channel 75–7
 - and credit creation 174–5
 - credit rationing
 - argument 66–75, 77, 150, 196–9, 208, 255
 - see also* credit, rationing
 - lending view 64–6, 77
 - substitutability 65, 70, 77
- cyclical policy 33, 78, 308–9, 312
 - see also* fiscal policy, fiscal stimulation; monetary policy
- deductivism 17, 18, 126, 158–9, 189, 324–5, 331–2
- le défi américain* 141–2, 238
- demand-management 33, 78, 79, 118, 125
 - see also* fiscal policy; interest rate policy
- demand-side economics 104, 113, 114–33, 317
- demand and inflation 120

- demand-side economics – *continued*
 money demand function 115–16,
 124, 126, 131, 189,
 195, 263
- Denmark, bank deregulation 231
- deposit receipts 167–8, 170–1,
 172, 174
- deregulation 3, 4, 5, 9–10,
 92, 94
 in banking sector 231
 and economic growth 10, 12,
 97–9, 101–2, 333
 and extinction of banks 149
 and perfect information 19–20
- developing countries
 debt 13, 168–70, 217
 and directed credit 216
 and economic growth rates 96, 324
 and foreign investment 217
 and free flow of capital 13–14
 and neoclassical economics
 policies 4–5, 13, 336–7
 structural reform 5, 12
- Dickey Fuller test 219
- disaggregated credit model 200,
 296, 323
 and determinants of growth 209–11,
 224–5
 and fiscal policy ineffectiveness 248,
 259–60
 investment credit 214
 and open economies 239–41, 243
 and velocity decline 202–3
- disequilibrium economics 194,
 200, 216
- disintermediation 192
- Dobbs, Lou 81
- Duisenberg, Wim 315–16, 336
- Dummy Variable Analysis 288
- Durbin-Watson test statistic 221,
 283–4
- East Asia
 credit control 27
 economic miracle 6–7, 26–8, 217
- economic cycles 14
see also real business cycle theory
- economic growth 103–13
 and credit creation 207–8, 211–14,
 217, 223–4, 225, 314–15, 318, 340
 and deregulation 10, 12, 97–9,
 101–2, 333
 determinants of 207–25
 and financial sector 152–4
 and foreign investment 217–18
 and interest rate policy 104–12
 link with economic
 structure 93–7, 104
 and quantity equation 186
 and savings 192
see also nominal GDP growth
 Economic Planning Agency (EPA)
 (Japan) 184
- economics
 deductive approach 17, 18, 126,
 158–9, 189, 324–5, 331–2
 and human behaviour 331–2
 inductive approach 17–18, 26,
 158–9, 162, 188, 296, 323,
 325, 332
 knowledge and wisdom 156
 and reality 324–35
see also macroeconomic schools
 of thought
- Economist, The* 80, 81
- educational reform 14–15
- Egypt, Ptolemaic 164, 172
- eigyo kyukuchu* 278
- Encyclopaedia Britannica* 188–9
- Enron 304
- environment 14
- equation of exchange *see* quantity
 equation
- equilibrium economics 214, 216
- Europe, productivity growth 80–1, 82
- European Central Bank 80, 336, 341
 monetary policy 314, 315–17, 320
 new journal on central banking
 practice 338
 and structural reform 315–16
 transparency 320
- exchange rate target 54
- Exter, John 238–9, 241
- Fair Trade Commission 99
- Federal Reserve 132, 258, 259, 336,
 337
- finance, direct and indirect 191
- Finance Law 1947 37, 39
- financial disintermediation 192

- financial institutions 4–5
 illegal activities 338
see also International Monetary Fund;
 World Bank
Financial Times 4, 316
- fiscal policy 339
 effectiveness of 39–44, 54, 246–60
 empirical test 249–54
 fiscal reconstruction 37
 fiscal stimulation 9, 30–3, 37–43,
 52, 78, 104, 233, 246, 255, 294
 ineffectiveness of 44–7
see also government expenditure
- fiscalist school of thought 123–5, 126
 policy advice for Japan 125, 157
- Fisher model 246, 249
- fixed exchange rate system 245
- foreign assets 239–41
- foreign investment 139–40,
 217–18, 323
 and foreign control 217
 and growth 217–18
 and technology transfer 217
- France, conversion of dollars to
 gold 245
- free market model 3–6, 19–20,
 92, 94, 199, 333–4
 challenges to 7
see also neoclassical economics
- Fuggers Bank 173
- Gabriel, Peter 330
- German Historical School 334
- Germany
 adopting neoclassical model 4,
 27–8
 and British classical economics 333,
 334–5
 economic performance 95–7, 102
 monetary policy 313–16, 320
- Goldman Sachs 336
- goldsmiths, gold deposited with 167–71
- government expenditure
 deficit spending 257, 260
 financed by new bank credit 254–7,
 260, 302
 financed by printing money 254,
 257, 258–9, 260
 funded by bond issuance 39, 44, 45,
 255–7, 260, 302
 and growth 37–9
 and interest rate crowding out 44–7,
 246–8, 249, 252, 302
- government intervention
 case for 199–200, 215, 334, 336
 and East Asian miracle 6–7, 26–7
 inefficiency of 5, 19
- Granger causality 59, 60, 221–4, 234,
 243–4, 286, 288, 290
- Greece, and history of banking 163,
 172–3
- Greenspan, Alan 132, 336
- happiness 14–15, 332
- Hashimoto, Ryutaro 97–8
- Hawaii, Japanese investment 140
- Hawtrey, R.G. 254–5
- Hendry methodology 218–19, 224,
 243, 282, 321–2
- Hicks, John 51–2, 54, 55, 189
- high powered money 61–2, 127–8,
 129, 233, 261–2, 263
- Hosokawa, Morihiro 97
- imperfect information 64–5, 193,
 199, 215, 217, 304, 325–6, 330
- income velocity (velocity of real
 circulation) 130, 202–4
- Indonesia
 and banking reform 301
 and structural reform 317
- inductivism 17–18, 26, 158–9, 162,
 188, 193, 296, 323, 325, 332
- inflation
 and central bank independence
 337–8
 and credit creation 208,
 209–10, 339
 and demand 120
 inflation targeting 52–3, 54
 managed inflation 53
 and money creation 308–9
see also asset inflation
- interest rate policy 49–77, 78,
 196–9, 233
 and credit view 64–77
 and economic growth 104–12
 and endogenous money
 school 57–61
 ineffectiveness of 261, 323
 and inflation targeting 52–3, 54
 and monetarist view 61–4

- interest rate policy – *continued*
 to reduce inequality 341
 zero rates 50, 51–2, 54, 55, 56, 61,
 63, 263
- interest rates
 and asset inflation 137
 and bank lending behaviour 143–7
 and credit rationing 196–9
 and economic activity 197, 233
 and money supply 112, 145
- International Bank for Reconstruction
 and Development (IBRD) 153
see also World Bank
- International Journal of
 Central Banking 338
- International Monetary Fund (IMF)
 4–5, 12, 13
 and banking reform 77, 297, 303
 conditionality 152, 337
 financial programming 215–16, 218
 and foreign ownership of banks 305
 and Letters of Intent 298, 305
- invisible hand 3, 199, 334
- Ireland, economic success 316
- IS-LM model 42, 45, 54, 55, 64, 189,
 246, 247
- Japan
 adopting neoclassical
 model 27–8, 33
 asset price bubble 232–7, 238
 asset prices 134–8, 157
 bad debt problem 11, 265–6,
 294, 307
 bank lending 143–8, 267–94
 econometric evaluation
 281–6, 292
 empirical evidence on
 272–81, 291–2
 bank transactions 161
 banking crisis 151
 banking system 10–11
 bankruptcies 30, 88, 303
 capital flows 139–42, 157, 238,
 241, 242–5
 capital stock 86–7
 cartels 10, 96, 99–101
 challenge to neoclassical
 economics 8–12, 28, 93–4, 102
 crime rate 101
 deflation 8, 88, 90, 118, 298
 economic recovery 11, 103–4
 economic success 6–12, 93–4
 factor input decline 83–7
 factor input utilization 87–9, 96
 fiscal policy 9, 30–3, 37–48, 54, 104,
 121, 246, 248, 251, 253–4, 255
 foreign investment 139–40
 government borrowing and debt 9,
 39, 40
 inflation 88–9, 118
 interest rate policy 8–9, 29, 30, 42,
 50–77, 104–12
 land productivity 137
 life insurance companies 256
 monetary policy 49–77, 118, 262–6
 nominal GDP growth 218–25
 population growth rate 83–4
 productivity decline 80–9, 90
 reality-based economics 335
 recession 7–12, 29–34, 36, 56, 78–90,
 94–5, 298–9, 300, 303, 307
 structural reform 91–102, 103–4,
 118, 157, 309–13, 317
 suicide rate 8, 30, 32, 88, 101
 technology inputs 86, 87
 and technology transfer 218
 unemployment rate 30, 32, 88,
 90, 96, 157
 workforce growth rate 83–6
- Japan Real Estate Institute 234
- Jarque Bera statistic test 221, 284
- Jefferson, Thomas 258
- job security 4, 14, 15
- J.P. Morgan 304
- Kennedy, John F. 28, 258
- Keynesian school of thought 118–21
 and fiscal policy 41, 42, 45, 119,
 124, 126, 246–7, 249, 250
 and interest rate policy 67, 78
 and liquidity trap 51–2, 54, 55
 and monetary policy 119–21
 policy advice for Japan 121, 157
- Knights Templar 164
- knowledge, and wisdom 156
- Koizumi, Junichiro 33, 92, 97,
 98, 103, 104
- Korea 68, 94
 bank lending 68, 231, 324
 and banking reform 301, 303
 economic performance 95–7, 102

Korea – *continued*

- and foreign investment 218
- reality-based economics 335
- and structural reform 317

Kublai Khan 165–7, 258

labour market

- equilibrium 126
- flexibility 4, 12, 15, 118
- structural reforms of 14
- land prices 76–7, 134–7, 147–8, 234–7, 238, 242
- see also* real estate prices

Latin America

- financial crisis 153
- and World Bank/IMF programmes 12

lending

- definition of 175
- see also* bank lending; credit

liberalization 3, 4, 5, 9–10, 92, 94

- and economic growth 10, 12, 97–9, 101–2, 333
- and extinction of banks 149
- and perfect information 19–20

life insurance companies 255, 256

liquidity trap argument 51–2, 53–6, 61, 62, 120, 121, 157

List, Friedrich 333, 334

macroeconomic schools of

- thought 114–33
- common features 126
- and deductive methodology 126, 158–9, 189
- new consensus 49

Maekawa Reports 1986 and

1987 310

Malaysia, and banking reform 303

market clearing 27, 193, 326, 327

market equilibrium 16, 19, 79, 118,

126, 193, 227, 255, 326, 327–8

market rationing 27, 52, 193–4, 326–8

- and power of allocators 328–31

maximum capacity utilization 26

Mesopotamia 163, 172

Mexico

bank deregulation 231

banking crisis 151

Middle East, and neoclassical economics 16

military conflicts, causes of 16

monetarist school of thought 45, 61–4, 121–3, 124, 246–7

and fiscal policy 123

and monetary policy 61–4, 122–3

policy advice for Japan 123, 157

monetary policy 49–77, 118, 314, 315–16, 339–41

and bank credit 267–94

classical economics and 115–16

and credit creation 262–3

credit view 64–77, 91

and endogenous money school 57–61

European Central Bank 314, 315–17, 320

goal of 308–13

inflation targeting 52–3, 54

Keynesian economics and 119–21

liquidity trap argument 51–2, 53–6, 61, 62

monetarist economics and 61–4, 122–3

and neutral money school 57

quantitative easing 56

and recovery 261–6

to stimulate Japanese economy 262–3, 294

monetary transmission

mechanism 63, 247

money 57, 62, 117, 190–1, 193, 326, 328

barter 117, 193

coined 162–3, 167, 179

and economy 126–33, 181–3

endogenous 57–61, 67, 192, 263

inside and outside 127–8

money demand function 115–16, 124, 126, 131, 189, 195, 263

money supply (M) 115, 129, 174, 179, 186–90, 233

paper 165–7, 168, 170–2, 173–4, 258

velocity decline 62–3, 114–33, 183–6, 201–6, 224, 323

see also credit

money multiplier 128, 175–6, 182, 191

- Mongol empire 164–7, 173
 mortgages 227
- National Income Accounts 134
 neoclassical economics 3–8, 19–26,
 116–17, 124
 and anomalies 6–7, 8, 28
 assumptions 20–6, 92, 117, 193
 deductive approach 17, 18–19, 78
 disillusionment with 5–7,
 12–17
 and educational reform 14–15
 growth theory 79–80, 90, 92
 and happiness 14–15, 332
 and human behaviour 331–2
 Japanese challenge to 8–12, 28,
 93–4, 102
 and Japan's recession 78–90, 94–5
 need for alternative approach 17–19,
 28, 158–9
 and obfuscation 18
 rejection of inductive approach
 17–18
 and role of banks 11
 welfare economics 9–10,
 92–102, 336–7
see also supply-side economics
 new classical economics 116, 118
see also neoclassical economics
Nihon Keizai Shinbun 273
 Nikkei *see* *Nihon Keizai Shinbun*
 Nikkei index 134
Nikkei Kinyū Shinbun 273
 Nikkei Kōshasai Jōhō 203
 nominal GDP growth
 and credit creation 207–25,
 247–53, 261
 parsimonious model of 218–21,
 224, 323
 Nomura Research Institute 281
 non-performing loans (NPLs) 151
 Norway, bank deregulation 231
- Ockham's Razor 321, 322, 325
 OECD 4, 98
 official discount rate (ODR) 50,
 282, 292
 OLS regression 205, 220, 235, 244,
 251, 252, 282, 283
 output, potential 207–8
- overnight call rate 50, 51, 104–6,
 263, 282
- paradigms *see* theories/models
 parameter constancy tests 223, 252,
 290, 291
 parsimony/parsimonious
 model 218–21, 224, 243–4,
 282–3, 321, 323
 Pebbles Beach Golf Course 140
 Pepys, Samuel 168
 perfect competition 25
 perfect information 19–25, 52, 79,
 92, 117, 121, 193, 321, 325–6
 Plaza agreement 1985 245,
 292, 309
 poverty/inequality 12–13, 15, 340
 prices, flexible 117
 privatization 3, 4, 5, 9–10, 12, 92, 94
 and economic growth 10, 97,
 98–9, 101
 and perfect information 19–20
 productivity
 factor input decline 83–7
 factor input utilization 87–9
 labour productivity 81
 measuring 80–3
 protectionism 334
- quantitative easing 56
 quantity equation (equation of
 exchange) 115–16, 120–4,
 126–31, 163, 181–90, 201–2,
 247–9, 323
 Cambridge version 116, 182, 247
 definition of money 190–1, 200
 definitions of M 186–90
 origin of 181–3
 quantity of factor inputs
 (QFI) 79–80, 208
- Radcliffe Report 1959 189
 real business cycle theory 42, 78,
 117–18, 312
 real estate prices 228–9, 233, 234–7
 lending and 236–7, 292
see also land prices
 reality-based economics 335
 regional development banks 4
 Reichsbank 216, 339

- RESET test of functional form
 - misspecification 221, 282, 284
- resources, full employment
 - of 25–6, 87–8
- Ricardian equivalence 47, 52, 118, 246, 249
- Ricardo, David 13
- Rockefeller Center 140
- Rome 164, 172, 173

- St. Louis monetarists 247
- Samuelson, Paul 4, 6
- Sasaki Report 1983 310
- savings, and economic growth 192
- Say's Law 228, 248
- Scandinavia
 - banking crisis 151, 300
 - speculative credit creation 227
- Schacht, Hjalmar 216
- self-interest 3, 14, 15, 26
- shikin kaigi* 277
- shingiyaku* 278
- shock therapy 5
- 'short-side principle' 27
- Sparta 164
- Spitzer, Elliot 338
- stagflation 121
- structural adjustment
 - programmes 5, 216, 297
- Structural Impediments Initiative 94
- structural reform 4, 5, 56–7, 77, 79, 83, 87–8, 92, 339
 - and economic performance 97–101
 - Europe 315–16
 - ineffectiveness of 52, 91–102
 - Japan 91–102, 103–4, 118, 157, 309–13
 - link between economic structure and performance 93–7, 104, 112
 - and social welfare 313
 - Switzerland 317–19
 - Thailand 317
- Sumeria 163
- Summers, Lawrence 4
- supply-side economics 9, 10, 33, 56, 79, 91, 104, 113, 114, 124, 316
 - see also* neoclassical economics
- sustainable communities 15
- sustainable growth 309
- Sweden, bank deregulation 231
- Swiss National Bank, and structural change 317–19
- Switzerland 317–19

- Taiwan
 - credit controls 324
 - reality-based economics 335
- tattonnement* 326
- technology transfer 217, 218
- Thailand 68
 - bank lending 231
 - and banking reform 301, 303
 - and foreign investment 218
 - and structural reform 317
- theories/models
 - and anomalies 6–7, 8, 28, 137, 157–8
 - and assumptions 20–6, 117, 193, 325
 - choosing between 321–2
 - and forecasting 322, 325
 - and human behaviour 331–2
 - and paradigm shift 156–7
- Tokyo Stock Exchange 134
- Toledo, Alejandro 4
- total factor productivity (TFP) 79–80, 81, 82, 208
- transactions 182–3, 184, 185–6, 201–2, 203
 - impact of credit creation 188, 207, 208, 209
- unemployment 12, 15, 151, 315
 - in Japan 30, 32, 88, 90, 96, 157
- United Kingdom
 - bank deregulation 231
 - British classical economics 333
 - economic development 333–4
 - economic performance 96–7
 - government intervention 334
 - house prices 137
 - Japanese investment 140
 - productivity growth 82
 - speculative credit creation 227
- United States
 - capital outflows 141–2, 238–9, 240, 245
 - financial crisis 153
 - and free trade 334
 - printing money 258

- United States – *continued*
- productivity growth 80–1, 82
- recession 11
- VAR model 66, 68, 76
- velocity decline 62–3, 114–33, 183–6, 323
- explanation of 201–6, 224
- velocity of money (V) 62–3, 115–16, 126, 129–32, 186, 202–4, 248–9
- see also* money multiplier; quantity equation
- waku* 277
- Walras, Léon 193, 227, 326, 327
- War of Independence 334
- warifuri* 278
- Washington consensus 6, 13, 319
- welfare economics 9–10, 92–102, 336–7
- White’s heteroscedasticity
 - test 221, 284
- window guidance 268–81, 292–3, 294, 339
- and actual bank lending 284–6, 287
- discontinuation hypothesis 286–91
- econometric evaluation 281–6
- empirical evidence on 272–81
- World Bank 4–5
- and banking reform 297, 305
- East Asian miracle study 6
- programmes 12
- World Trade Organization (WTO) 4