Bibliography


Duménil, G. and D. Lévy (1993) *The Economics of the Profit Rate* (Aldershot, UK and Brookfield, USA: Edward Elgar).


Postface: The Subprime Financial Crisis

I suggested that what China really needed was people who had worked in a market economy and had the sharp eyes and competitive judgment of able loan officers of the West.

(Alan Greenspan, former chairman of the US Federal Reserve, 2007, p. 319)

A historical background

This little book was initially written in 2003, and translated in December 2005. Few economists then paid any attention to the real estate boom and to the expansion of the subprime market—mortgage or credit card loans that were granted, at high interest costs, to borrowers that had compiled a poor credit record. Also, few analysts took notice when in 2006 some large European banks revealed substantial write-offs, tied to their operations in the USA, or when Bear Stearns—the large Wall Street investment bank—announced in July 2007 that it was closing down two of its hedge funds. Then in August 2007, all hell broke loose, as European banks stopped trusting each other, not knowing which one of them was on the brink of bankruptcy. Banks that had excess funds refused to lend on the interbank market to banks that needed funds. This forced the European Central Bank to provide nearly unlimited amounts to money markets in an effort to keep the overnight interest rate near its benchmark level and to make sure that bank payments could go through. The crisis quickly subsided, and central bankers thought they had cleverly avoided further financial trouble.

But then, here and there throughout the world, investors decided not to roll over the short-term assets that were backed by long-term liabilities—mortgages or securities based on mortgages, especially those of the US subprime market—thus creating a liquidity crisis in many countries. In early September 2007, in Britain, there was a bank run on Northern Rock—a large mortgage issuer that pursued
strategies not unlike those of aggressive US mortgage issuers. Despite government protestations to the contrary, Northern Rock had to be rescued, and then nationalized in early 2008, just when a large American bank, also specializing in mortgage loans, Countrywide, was purchased by a rival for a next to nothing dollar amount. The same fate awaited Bear Stearns a couple of months later, and then, in August and September 2008, the sky seemed to fall, with a series of large banks and financial institutions needing to be rescued, and with another panic on interbank markets.

The entire world has been facing the so-called subprime crisis, a crisis that first hit banks and other financial institutions through changes in the real estate market, and later spread to the stock market and the real economy. The crisis is not only tied to subprime borrowers. Banks got into difficulty because households of all social classes took advantage of the relaxed borrowing standards, as pundits praised the merits of a new era in financial engineering, a near replay of the new era in information technology. A cycle of denial, bank failures, bank rescue plans, bank nationalizations, economic recessions, and ultimately fiscal stimulus plans have ensued in many countries. Most economists were taken by surprise. Among the few that spoke of an impeding crisis before 2006 were Wynne Godley (1999b) and Robert Shiller (2005), the former because he thought that household debt could not rise any further and the latter because he argued that housing prices could rise no more. These two combined effects – overly high household debt and stagnating or falling residential prices – exposed the fragility of the financial system, despite the increased sophistication of the mathematical finance models that underwrote years of tricky innovations and reckless expansion.

Does post-Keynesian theory have anything to say about the subprime financial crisis? While Introduction to Post-Keynesian Economics certainly did not predict the current financial crisis, nor did it attempt to do so, there are many passages of the book that help us to understand the recent events, that no doubt will come down as being part of history, just as the Great Depression of the 1930s is still remembered today. Indeed, I will argue that the subprime financial crisis has more similarities with the events that led to the Great Depression than to the last two major recessions that hit the Western world, those of the early 1980s and 1990s, which were purposely caused by restrictive monetary policies designed to eradicate inflation.
Banking: the greed for profits but the fear of losses

Because the subprime financial crisis is about banks and other financial institutions, this is where we should find the first link with the contents of the book. In the chapter on the macroeconomic monetary circuit, I emphasized time and time again that there are no limits to the amount of credit that can be granted by the banking system. In contrast to the belief of mainstream economists, post-Keynesians reject the idea that there is a pool of loanable funds out there that limits monetary growth. Credit creation depends on the liquidity preference of banks and the confidence of borrowers. Banking is based on trust and confidence; it is based on the notion of creditworthiness. If a bank believes that it can be profitable to lend more, it can always do so, as long as it maintains the trust of other banks. The business of banking is essentially a trade-off between the appeal of profits and the fear of losses. Profits are made by lending more, and by innovating in providing new financial products, but making loans to the wrong persons or at the wrong time may lead to large operational and capital losses if the borrowers fail to make their interest payments and default on their loans. This is why bankers set criteria that help them decide who to lend to and when to lend, and what to do to cover themselves against excessive risk.

These criteria however vary through time, as they are not fully objective or fully endorsed. Banks are likely to rely on stricter norms in bad times, and they tend to loosen their rules in good times. As was shown in the figure on page 70, banks tend to ration credit in bad times while raising credit costs – the spread between the benchmark rate and the actual lending rate – because they worry about rising default losses. In good times, they will encourage potential borrowers to take on loans by offering low interest rates based on low spreads because they assess low default risks. This has been further explained on pages 72–3, when discussing the views of a major post-Keynesian economist, Hyman P. Minsky. As the boom proceeds, according to Minsky, economic agents hold less liquid assets and are prepared to take on more debt. Paradoxically, successful conditions eventually lead to more fragile financial positions. This is what he called the financial instability hypothesis or the financial fragility proposition.

Minsky mainly focused on the propensity of firms to raise their debt ratios and on the propensity of banks to raise their leverage
ratios – the size of their assets relative to their own funds (their equity base) – in good times. While banks and financial institutions did raise their leverage ratios in the wake of the subprime crisis, as Minsky predicted, firms saw their debt ratios remain constant or even fall during the expansion that followed the 2001 stock market crash. Instead it is the household sector, in the USA, in the UK, in Canada, and in many other countries, that saw continuously rising debt ratios, measured either as the debt to net wealth ratio or more simply as the debt to disposable income ratio.

Incidentally, when Dorene Isenberg (1988, 1994) studied Minsky's financial fragility hypothesis in light of the historical record of the Great Depression, she discovered that US firms did not exhibit rising debt ratios in the 1920s. US households did. Their debt to income ratio nearly doubled between 1922 and 1929. Households ran up debt to purchase real estate and stock market equities. Surprisingly, while the Great Depression is associated with the 1929 stock market crash and excessive debt-financed equity purchases, most of household debt arose from mortgages. There is therefore a great deal of similarity with the current subprime crisis, where banks, especially Wall Street investment banks and European banks, through their hedge funds, indulged in high leverage ratios, while households borrowed overly large amounts to purchase residential properties at inflated prices.

Black swans

How is it that bankers, normally reckoned as prudent fellows, fall into the trap of over-borrowing and over-lending? Post-Keynesians attribute this to the intrinsic presence of fundamental uncertainty. In a world of uncertain knowledge and future, decisions depend on confidence and animal spirits. There are no clear-cut or objective ‘fundamentals’ upon which one can rely for a course of action. This is particularly so in the world of financial markets. In the absence of reliable information, bankers and investors base their decisions on the recent past. They use models based on normal probability distributions, assuming that the recent past is a guide to the future. As described by the author of a recent bestseller (Taleb, 2007), most bankers and investors assume away black swans – unpredictable outlier events of catastrophic magnitude that do occur, but infrequently.
Just as there are nearly no limits to the credit that can be created, there are practically no limits to the amounts that may be required in a liquidity crisis, when things go wrong.

Most heterodox authors, and post-Keynesians in particular, therefore believe that unfettered markets are unstable rather than stable. It is not wise to rely blindly on markets. This is particularly so in the case of financial markets. And the repercussions of this financial instability on the real economy, Main Street as the Americans call it, can be formidable, because nearly all of our monetary transactions have to clear and settle through the banking system. This is why post-Keynesians argue, as we did in this book (pages 12 and 73), that banks in particular and financial markets in general need to be strongly regulated, because of their intrinsic instability and because of the systemic damage that the failure of just one large financial institution can impose on the domestic economy. With globalization, the repercussions can spread to the world.

**Immediate causes of the subprime crisis: securitization**

In the mid-1980s, the banking community was abuzz with talk of a new financial practice called *securitization*. This in turn led to a new form of banking dubbed the *originate and distribute* regime. Before this financial innovation, a bank that granted a mortgage was stuck with it, and made a small profit over a 25 or 30 year period. If the borrower was risky, the issuing bank had no choice but to carry the risk. With securitization everything changed. The mortgage-issuing bank could get an immediate and substantial fee by bundling mortgages and selling them as securities, most often high-grade securities, called *mortgage-backed securities* (MBS). The risk of default did not belong to the issuing bank anymore but rather to the investors who purchased the securities. This was said to be good because it spread the risk by thinning it out over a large number of investors and institutions who, it was assumed, were able to correctly assess the dangers inherent to their newly acquired assets.

Layers of innovation were added when some financial institutions paid for the mortgage-backed securities by issuing short-term commercial paper sold to rich households, small firms with excess cash, or pension funds in search of liquid assets with high returns. These were called *asset-backed commercial paper* (ABCP). The financial
community added yet another layer of innovation by creating synthetic assets – derivatives called *collaterized debt obligations* (CDO) – that were combinations of these mortgage-backed securities, and with the creation of combinations of combinations, now called CDO squared. Furthermore, investors, through so-called *credit default swaps* (CDS), were given the opportunity to bet on whether or not the securities would pay the promised rate of return. Then, as in Escher’s waterfall, the market prices of the credit default swaps were used to estimate the risk of the mortgage-backed securities or that of their synthetic versions. Once again, all these derivatives were said to dilute risk and reduce the possibility of a systemic failure. Very few specialists believed that these covert liabilities could have adverse effects. They believed instead that derivatives improved the efficiency of financial markets.

One does not need a PhD in economics to get the feeling that such a setup is bound to become unstable, encourage fraud, and lead to financial distress, especially when tied to a bonus system that rewards short-term thinking by real estate agents, mortgage brokers and bankers, underwriters, and rating agencies, while penalizing none of the long-term losses occurred by the ultimate holders of the asset. As the French say, ‘après moi, le déluge!’ But this did not seem to occur to the vast majority of economists and finance specialists, nor to central bankers. As Minsky (1986, p. 280) pointed out, ‘the erosion of bank equity bases, the growth of liability management banking, and the greater use of covert liabilities are virtually ignored until financial markets tend to break down’. Minsky (1987) noted from the start that securitization helped banks evade the capital adequacy ratios imposed by regulatory bodies. Taken to extremes, Minsky said, banks with very little capital could create an infinite amount of mortgages, securitizing and selling them to the non-bank financial sector which was not subjected to such regulations.

Minsky also noted that securitization was closely related to globalization, as mortgages funded in the US could end up being held in any other country in the form of a security. Indeed, in some countries such as Germany, securitization was entirely forbidden, German banks were not allowed to issue securities based on mortgage loans. Despite the wisdom of this rule, the German monetary authorities forgot to forbid German banks from *purchasing* mortgage-based securities. As a result, some German banks encountered huge losses on their US subprime assets, and ironically had to be rescued before the failure of a single US
bank. Indeed the interbank market crisis of August 2007, which was the first clue that something very wrong was going on, was precipitated by the failure of a German bank, followed by the refusal of a French bank to price the US-issued mortgage-backed securities and collateralized debt obligations of its hedge funds. And a huge German bank, Hypo Real Estate, had to be nationalized in 2009 after more than 100 billions of Euros were injected in a vain effort to save it from failure as a result of its risky indirect involvement in the US real estate market.

**Liquidity**

The subprime crisis brought to the fore an economic concept which has been underlined by a string of post-Keynesian writers: liquidity. It is all very nice, as mainstream authors do, to claim that markets find the correct price at all times. Let the prices fall and someone will be willing to buy, they say. But this occurs only if there is enough liquidity (Davidson, 2008). If everyone wants to sell an asset, or if nobody wants to purchase this asset, there has to be a lender of last resort, or else the market for this asset will freeze, as it did on a number of occasions and for a number of money markets beginning in August 2007, most notably in the case of asset-backed commercial paper, when investors refused to roll over their holdings.

The relevance of Minsky’s analysis has been highlighted frequently by the *Wall Street Journal* and various finance journalists during the subprime crisis, as they referred to a *Minsky moment*. Economic agents that lack the needed liquidity, or who hold what they thought were liquid assets, try to sell some of their other assets, financial or tangible ones, but then the prices of these assets themselves fall without bounds, creating a vicious circle. The flexibility of market prices yields perverse results, as heterodox economists often fear, and as was noted on page 16.

The importance of liquidity can be recalled through the following story, told by Jorion (2008). Take a bull livestock breeder. Suppose he owes $10,000 to his banker. Now comes time to pay. He doesn’t have the cash to pay back the loan so he suggests to his banker that he will raise the money by auctioning off one of his bulls. The auction market is full of livestock breeders. Nobody however is willing to buy at $10,000, nor at $9,000, and neither at $8,000. The banker tells the
breeder to forget it, and to leave the auction. The livestock breeder insists that pretty soon someone will buy his bull at a fair price. Then the banker says: ‘Don’t you understand? All the livestock breeders here owe me money!’

To their credit, central bankers did intervene on a massive scale to provide liquidity. Besides taking on board huge amounts of risky assets in exchange for safe Treasury bills, which the banks could use as collateral when in need of borrowing, central banks also supplied on a daily basis huge amounts of cash to banks that were unable to borrow on the interbank market because these markets had completely frozen. This happened in August 2007 but also in September 2008, when over a period of a few days the remaining Wall Street investment banks were either let go or saved from failure, and when other huge American financial institutions were nationalized. Banks preferred to keep their surplus funds in their accounts at the central bank rather than risk losing these by lending them at a higher rate to a bank that might have gone bankrupt the next morning or the following week. This period of turmoil, however, has validated many of the claims made by post-Keynesian authors, as presented on pages 59–63. At all times, the monetary authorities managed to keep the benchmark interest rate at or near its targeted level, despite the huge demand for cash by the banking system.

**Implications for monetary theory**

Looking at the subprime crisis from a wider angle, two points remain to be made. First, it is clear that macroeconomic modelling cannot be done exclusively on the basis of flow variables (such as income) or with the help of a single interest rate and a single stock – the stock of money as the monetarists long tried to convince us. Clearly stock-flow ratios, such as the debt to income ratio, are important determinants of economic activity, as are wealth to income ratios, determined in part by the strength of the real estate sector and that of the stock market. The subprime crisis, in my view, reinforces the belief expressed in this book that there is a need for a systemic view of the monetary economy.

Financial relations play a crucial role and one needs to analyse how financial commitments impact on the real economy. A proper balance sheet matrix is needed to design a true transaction-flow matrix, as presented in a simplified form on page 77. These tools take
into consideration all the financial flows (interest payments, mortgage payments and reimbursements, dividend payments, retained earnings) associated with the various financial and tangible stocks. It is important to track the evolution of these stocks, as they help determine flow variables such as consumption or investment. As Minsky (1996, p. 77) used to say, ‘the structure of an economic model that is relevant for a capitalist economy needs to include the interrelated balance sheets and income statements of the units of the economy’.

The events of the subprime crisis have also shown how important it is to consider a set of interest rates rather than some generic interest rate, as we have done on pages 71–2 in our discussion of the liquidity preference of banks and investors. During the crisis, large differentials arose between risk-free interest rates, both short and long ones, and market interest rates that incorporated either the default risk of banks or that of non-financial firms. These large differentials arose because individuals and institutions were desperately seeking safe assets, which only the government could provide, since even bank deposits were not fully secured when they exceeded the insured amount. Luckily, due to the large deficits that governments incurred during the recessions of the 1980s and 1990s, large amounts of government securities were available, especially in the USA.

**Distant causes of the subprime crisis: financialization**

Finally, a few words about the more systemic causes of the subprime crisis. While the immediate causes can certainly be attributed to greed and the generalization of securitization, one may wonder if there are not more latent forces that have led to the crisis. Some post-Keynesian and Marxist economists see the subprime crisis as a nearly unavoidable consequence of a process called *financialization*. Financialization is described as a process whereby *finance* is deregulated and takes over the real economy. With financialization, the financial services sector claims a larger share of GDP, the profit share rises as the managers of non-financial firms are pressured to realize higher profits, and the share of these profits going to financial investors also rises as they succeed in imposing higher norms on financial returns, as discussed briefly on page 124. In its present form, financialization has also been accompanied by more financial frauds and much higher pay for CEOs and other high-ranking corporate officers.
In Chapter 4, the chapter on effective demand and the labour market, we emphasized the role played by real wages relative to labour productivity. We argued that a reduction in the real wage to labour productivity ratio is bound to reduce aggregate demand and economic activity. A similar point was made in Chapter 5, when discussing economic growth and the wage-led Kaleckian growth model with its paradox of costs. Since the early 1980s, throughout most of the Western world, increases in real wages have badly lagged behind labour productivity increases, and as a result the wage share is much lower than it used to be. In and of itself, this should have led to relatively lower consumption, and eventually to slower growth in overall economic activity over this period. But it did not, at least not in every country, and certainly not most of the time, because two other factors were compensating for the negative effect of relatively low real wages.

First, as already pointed out, financialization led to firms paying out a larger proportion of their profits to investors. This, within the framework of the employment model of pages 90 and 96 as well as the growth model of Chapter 5, is equivalent to a decrease in the proportion which is saved out of profits – the $s_c$ parameter. This can be easily understood. If households receive a larger proportion of profits, the propensity to save out of profits gets reduced, ceteris paribus, since firms save all of the profits they keep in the form of retained earnings, whereas households spend part of the financial income they receive. The lower propensity to save, as was shown, leads to higher profits and economic activity, and to faster growth. These high profits, in turn, lead to high stock market prices, and hence high capital gains on stock market equities, which lead to further decreases in the propensity to save out of profits, as households spend more as they feel richer because of the stock market boom.

Secondly, financialization fuelled this phenomenon, and the subsequent real estate boom, by facilitating access to credit. As is well documented, economic prosperity in the USA and elsewhere was made possible by the rising debt to disposable income ratio of households. In other words, economic growth was consumer led, as households took more and more debt, with the full encouragement of the banking sector. This in turn led to rising stock market and real estate prices, which further induced households to spend on consumer goods and services. Financialization thus transformed a growth regime that relied on high real wages and high business
investment into one that was based on high consumption spending and ever-rising household gross debt justified by high prices in the stock market and the real estate market. Instead of rewarding ordinary workers with appropriate wages and making large investments in tangible capital, firms were paying out low wages and were lending funds to households to help them pay for their consumer goods and their financial and real estate assets.

As was pointed out by some post-Keynesian observers (Godley, 1999b), such a growth regime was not sustainable. It could only go on as long as the debt to disposable income ratio kept rising. The burden of debt payments would finally take its toll, especially if interest rates were to rise, as they did in the US during the last phase of the real estate boom. The excesses in the US and UK real estate markets turned out to be so large however, that the real estate boom was pricked first, eventually generating the subprime financial crisis, and unveiling as a side effect the unsustainability of the current consumption and household debt-led growth regime. The claim here, substantiated by a stock-flow consistent model based on the principles enunciated in Section 4 of Chapter 3, is that a growth regime pulled by household debt is unsustainable (Godley and Lavoie, 2007). The higher flow of mortgage or consumer loans relative to personal income has a positive impact on the economy in the short run, but a negative impact in the long run. To keep up the growth rate so achieved in the short run, households need to take up ever rising debt burdens. With the subprime crisis, the flow of mortgage and consumer loans has dried up, even turning negative, both because banks are reluctant to lend and because many households try to reimburse their debt. The process goes in reverse gear. In the short run, meaning probably a few years, the reduction of the flow of household borrowing has very negative consequences on economic activity, reinforcing the negative impacts associated with any other economic slowdown.

**Practical implications**

There will probably be many fallouts from the subprime crisis, just as there were due to the Great Depression. As discussed above, income distribution needs to be modified, so that the growth in real wages of ordinary workers once more drives the growth of accumulation. This
may not happen in the near future however, since economic forces during a recession are pushing the other way. With rising unemployment rates and weakened trade unions, private firms are unlikely to grant pay rises. As to the public sector, the large budget deficits are an easy excuse to reject pay increases for civil servants.

On the other hand, the mess that bankers have created, along with the incapacity of some large corporations such as General Motors to foresee new trends, not to speak of the fraudulent behaviour of several corporate officers, has brought to light the absurdly generous remuneration packages of CEOs and other corporate officers. There are indications that some governments are inclined to set strict limits on corporate pay, for instance as a ratio of average wages in the company, and also to ban stock options or even severance allowances as part of pay packages, since these have been abused with large bonuses being granted even when companies were making large losses. They also led to counter-productive effects as corporate officers go for short-term gains without concern for the long-term consequences of their actions.

It will be impossible now for these CEOs and their sycophants – the pay consultants that recommend pay packages to boards of directors – to argue that corporate officers warrant their millions of dollars in pay because of their presumptively high productivity. The subprime crisis, with its losses surpassing thousands of billions of dollars, has shown that upper management bankers either lacked proper judgement or did not have a clue to what financial instruments were being developed or purchased by their staff. The subprime crisis has demonstrated that upper management has no special insight or capabilities beyond those of well-educated citizens. In other words, the pay of CEOs was not determined by their marginal revenue product, in contradiction to the claims of mainstream textbooks.

More obviously, most bankers have come to realize that the financial sector needs to be regulated much more carefully, for their own good. Financial markets cannot be left to auto-regulation. If banks and financial actors can evade some of the regulations by moving their activities towards the non-bank financial sector, then this obviously means that non-bank financial institutions need to be subject to regulations that are very similar to those imposed on traditional banking. Even hedge funds need to be regulated, as the failure or the near-failure of large hedge funds has demonstrated that they can unsettle the entire monetary system, forcing a state-sponsored bailout, as was
the case of Long-Term Capital Management in 1998, despite this hedge fund being advised by two economics Nobel prize recipients.

More generally, the so-called financial markets have lost a lot of credibility. Over the past 30 years or so, most governments have pursued pro-market policies, being constantly pressured to do so by ‘financial markets’ and the financial press. In particular, governments worried that rating agencies would downgrade their securities if they went too much into debt or if they didn’t heed their warnings. I believe that the advice of financial markets will now be more properly discounted. The deficits now being run by governments are the consequence of the irresponsible and foolish behaviour of the financial markets – bankers, financial advisors, rating agencies. They have created the mess we are in. The opinions of bank CEOs or those of chief economists at banks are less credible now that everyone knows that they can’t run their own businesses without being provided with billions of dollars, pounds or Euros of government help, either directly or through loans of safe Treasury bills.

An extraordinary change seems to have occurred in the minds of mainstream economists. Whereas most had argued that government budget deficits had to be avoided like the plague, having in the past supported IMF policies that had forbidden countries hit by the Asian financial crisis of 1998 to use expansionary fiscal policies, they now chant the advantages of fiscal stimulus packages to fight against recession and sullenness. Suddenly, the standard Keynesian recipes are not *dépassé* any more. They are the proper response to a fearful downward trend.

Even the IMF came out with recommendations to run budget deficits as high as 2.5 per cent of GDP. When the US economy and Western Europe were on the verge of a depression, with inflation or even prices falling briskly, IMF economists set aside their previous claim that public deficits crowd out private investment, discourage consumption for fear of future taxes, and lead to high interest rates. Now it seems that nearly all economists agree with the argument that budget deficits are good for business profits, just as we claimed on page 87. With households hesitant to consume, firms reluctant to produce, and banks doubtful about the creditworthiness of their customers, the state becomes the only stabilizing agent of the economy. Only the state can act as a countervailing force to sustain or jack up effective demand. Flexible market prices just will not do the trick, and monetary policy,
this time around not being the main cause of the recession, can only act to keep the monetary system functioning.

On an even grander scale, the subprime crisis should put a halt to the growing influence of mainstream economics and its blind faith in TINA – that there is no alternative beyond market solutions, privatizations, deregulation, balanced public budgets, lower tax rates and liberalized international capital markets. No doubt, we are observing, and we are bound to observe, a return towards Keynesianism, as described in this book. How widespread and how deep this second Keynesian revolution will be remains to be seen. Many mainstream economists still cling to the idea that the subprime crisis was caused by government regulation and intervention.

The good news is that there are more than 1.3 billion Chinese citizens who have been watching what has been going on since 2007. Some of them have also been burnt by the recent crash of the Chinese stock market. As they become part of the industrialized world, they cannot help but realize that deregulated markets rarely deliver the promises that mainstream ideologues proclaim and that unfettered markets are far from being efficient and stable. They have already had the opportunity to note that the Chinese economy managed to grow at a prodigious pace without following any or much of the advice of neoclassical economists. The subprime crisis is an additional inducement to stay clear of mainstream economics. We can therefore hope that, whatever happens next, there will be a large part of the world where some form of heterodox economics thrives.
Index

accelerator effects, 114, 118
AD-AS model, 13
aggregate demand equation, 89, 92
aggregate supply curve, see utilization function
Amadeo, E.J., 21, 115
Andrews, P.W.S., 18, 42
animal spirits, 17
Anouilh, J., 35
Arena, R., 20
Arestis, P., 6, 12, 29
Asimakopoulos, A., 91
asset adding-up constraints, 81
asset-based economy, 62–3, 64, 71
vs. overdraft economy, 58–9
austerity policies, xi, 56, 57 131
Austrian economics, 3
auto-economy, see asset-based economy
autonomous expenditures, 84–5, 88, 89, 91, 94, 101, 103, 113
economic impacts of, 94–5
balance of payment constraint, 123–6
balance-sheet matrix, 75
bank money, 57
bank rate, 59
banking school, 54, 55
banknotes, 60, 61
banks
and central bank, 57, 58, 59, 60–6
and firms, 16–17, 66–73
liquidity preference of, 17, 69–72
role of, 16–17
bargaining power, 51, 52
and employment, 98–9
and unemployment rate, 120
see also income distribution;
wages, and costing margin
Barro, R.J., 89
Behaviourists, 1, 26
Bellofiore, R., 54, 73
Bénassy, J.-P., 89
benchmark interest rate, 59–60, 65–6, 73, 82, 87
see also federal funds rate;
onight rate
Bhaduri, A., 89, 122, 124
Blecker, R., 123
Blinder, A., 2, 3
Bloch, H., 50
Boggio, L., 49
borrower’s risk, 37
see also principle of increasing risk
bounded rationality, see rationality, procedural
Bourdieu, P., 31
Boyer, R., 2, 3, 124
Brunner, E., 45
business cycle, and productivity, 101–2
Cambridge controversies, see capital controversies
Cambridge equation
in growth model, 108–9, 110, 115–16
short-period, 90, 96
see also saving function
Cambridge School, 2, 3, 4–6, 52, 108
capacity
excess, 41–4, 115
full, 41, 42, 46, 93
and market share, 43–4, 93
practical, 40, 41, 43
theoretical, 43
capacity utilization rate
actual and normal rates, 114, 115–17, 126–7
and growth rate, 114–17
and inflation, 126–7
and investment, 114
non-inflationary rate, 129
normal rate, 41, 46, 47, 48, 51, 112, 114
and profit rate, 113
survey of, 44
and wages, 118–19
capital accumulation rate, see growth rate
capital controversies, xii, 5
Cassetti, M., 129
Cecchetti, S.G., 55
central bank
and commercial banks, 57, 58, 59, 60–6
interest rate policy of, 59–60, 64–6, 82
reaction function of, 64–6, 126–7
role as a clearing house, 63
Chandler, A.D., 3, 36
chaotic dynamics, 9, 22
circuit school, 73
see also monetary circuit
class struggle, 51, 52
see also bargaining power
Cohen, A., 5
Colander, D., 22
commercial banks, see banks
compensation principle, 64
competition
imperfect, see oligopolies
perfect, 12, 32
c consumer choice theory, 25–32
contingent valuation model, 32
Copeland, M.A., 80
cost curves, 15, 21, 25, 36, 40–4
costing margin, 44–5, 46, 47, 112, 113, 116, 120
determinants of, 49–53
and employment, 100, 103–4, 106
and growth rate, 114–19, 122–3
and profit margin, 44
and profit rate, 111–12, 113
and wages, 100–7
see also paradox of costs; profit margin
cost-plus pricing, see pricing
costs
indirect, 42, 46
marginal, 41, 42
normal unit, 45–6, 47, 49, 50
overhead, 42, 46
unit, 41, 42, 46, 49, 50, 53, 89, 93, 102, 103, 127
unit direct, 41, 42, 45, 46, 47, 50, 88, 91, 103
see also pricing
Coutts, K., 49
credit divisor, 57
credit line, 67–8, 79
credit money, 57, 68
derendogeneity of, 68–9
see also money, endogenous
credit rationing, 56, 68–9
creditworthiness, 16, 55, 57, 58, 64, 69, 72, 79
Cripps, F., 74
cross-dual dynamics, 49
crowding-in effect, 87
crowding-out effect, 87
currency school, 54, 55
Davidson, P., 17, 19, 21, 67, 87, 112, 126, 132
deflationary bias, 82
Del Monte, A., 112
Deleplace, G., 55
dependence effect, 31
see also needs, dependency of deposits
causation of loans and, 57, 71–9
creation of, 57
government transfer of, 62–3
deregulation, xi
diminishing returns, 6, 19, 25, 53, 87, 89
discount window rate, 59
Dostaler, G., 89
Dow, A.C., 69
Dow, S.C., 18, 69
Drakopoulos, S.A., 26, 29
Duménil, G., 49, 126, 127, 128
Dutt, A.K., 21, 23, 112

Earl, P.E., 29
effective demand
components of, 84–6
and income distribution, 94, 96
and inflation, xiv, 126
Kaleckian model, ch.4
principle of, 5, 12–13, 15, 21, 23, 54, 113

Eichner, A.S., 6, 12, 20, 28, 29, 40, 41, 51, 74, 112
Eisner, R., 128
employer of last resort, 132
employment
and bargaining power, 98–9
and costing margin, 100, 103–4, 106
and market forces, 98–9
and productivity, 99–104
theory of, ch.4
and wages, xiv, 83, 91–4, 97–101
see also labour demand curve;
labour supply curve; paradox
of costs; paradox of thrift
endogenous money, see money,
derensive
environmental economics, 32, 33–4
Epstein, G.A., 124
equilibrium, multiple, 22–3
in growth models, 110
in labour markets, 97–9
expansion frontier, 38–40, 51
and monopoly power, 52–3

Fazzari, S.M., 23, 123
federal funds rate, 59, 60, 65
see also benchmark interest rate
Feminist economics, 1
Ferri, P., 73
Filardo, A.J., 128
finance, initial and final 66–7, 79–80
financial constraints, 15, 50
see also financial frontier
financial fragility, 72–3
see also principle of increasing risk
financial frontier, 38, 39–40, 51, 52–3, 112, 124
financial instability hypothesis, 72
financial market, role of, 124
firms
and banks, 16–17, 66–73
characteristics of, 32–6
liquidity preference of, 69
objectives of, 36–7
profit rate and growth rate of, 38–40
fiscal policy, xiv, 98, 95
Fontana, G., 26
Forstater, M., 132
free-market ideology, xi–xii, xiii, 7, 11–12, 104
Friedman, M., 3, 7, 55
Fullarton, J., 54
Fullbrook, E., xiv, 4
full-cost pricing, see pricing
fundamental uncertainty, 15, 17–18, 19, 22, 23
and excess capacity, 43
see also fundamentalist post-Keynesians; historical time;
rationality, procedural
fundamentalist post-Keynesians, 19–23, 87
funds, sources and uses of, 78–9
Galbraith, J.K., xi, 2, 3, 18, 27, 31, 36, 37, 99
Garegnani, P., 6, 20
Garretsen, H., 22
Georgescu-Roegen, N., 18, 25, 27, 28, 31
Gerrard, B., 26
Godley, W., 64, 74, 75, 81, 124, 128
Gordon, M.J., 72
government intervention, see state
intervention
Graziani, A., 67
Grossman, S.J., 89
growth, demand-determined, 12–13
growth barrier, 111–12
growth model
Cambridge model, 108–12
Kaleckian model, 112–30
neoclassical model, 110–11
profit-led, 123
stability condition, 110, 117
wage-led, 122
growth rate
and capacity utilization rate, 114–17
and costing margin, 114–19, 122–3
and interest rate, 124, 127
natural rate, 22, 119–21
in open economy, 123–6
and profit rate, 51, 108–10
and propensity to save, 110–11
and technical progress, 121–2
and wages, 112, 114–19, 122–3
see also investment function

Halevi, J., 14
Hall, R.L., 45
Hamouda, O., 19
Hanley, N., 32
Harcourt, G.C., 5, 19
Harrod multiplier, 124
Harrod, R., 2, 3, 4, 52, 124
Hayek, F., 3, 54
Hein, E., 130
Heiner, R.A., 18
Heinsohn, G., 57
heterodox economics
  characteristics of, 2–12
  schools, 1, 3
Hicks, J., 3, 18, 36, 58, 114
high-powered money, 63
  creation of, 57, 60–1, 64
historical time, 13–15, 17, 21, 31, 41
  see also fundamental uncertainty;
  path-dependency
Hitch, C.J., 45
holism, see organicism
Holt, R.P.F., 6, 21
horizontalist, 60–1
Humanist economics, 1, 18
hypothesis, validity of, 7–8
hysteresis, 15, 31, 121, 128
  see also path-dependency
income distribution
  and effective demand, 94, 96
  and growth, 111–12, 114–19, 122–3
  and inflation, 129–30
  and productivity, 100
  see also wages, and costing margin
income effect, 16, 29, 97
incommensurability principle, see
  irreducibility principle
induced expenditures, 84–5, 89
  see also autonomous expenditures
inflation
  and capacity utilization rate, 126–7
  conflicting-claims theory, 129–30
  demand-driven, 126
  and income distribution, 129–30
  and institutions, 129–30
  and interest rate, 65, 126–7
  and money supply, 58, 81–2
  and pricing, 53
  Wicksellian theory, 56
  see also Phillips curve
inflation barrier, 112
inflation targeting, 127
Institutionalists, 1, 2, 3, 18, 20, 25
institutions, role of, 10, 129–30
instrumentalism, 7–8
interest rate
  endogenous, 56
  exogenous, 23, 55, 56, 59–60,
  65–6, 82
  and growth rate, 124, 127
  and inflation, 65, 126–7
  and investment, 95
  mark-up, 67
  natural rate, 56
  and normal profit rate, 52
  short-term and long-term rates, 82
  see also central bank, reaction
  function; monetary policy
investment
  and capacity utilization rate, 114
  decision of, 16
  independence of, 85, 94
  and interest rate, 95
  and saving, xiv, 13, 16, 54, 58
Index

investment function, 109–11, 114–17, 118
variants of, 122–3, 124
invisible hand, 11
see also free-market ideology
Ironmonger, D.S., 29
irreducibility principle, 28, 31
Irvin, G., 102
IS-LM model, 84

Juniper, J., 132
Kahn, R., 4, 54
Kaldor, N., xii, 2, 3, 4, 5, 14, 18, 19, 20, 51, 52, 53, 54, 60, 86, 89, 90, 108, 111, 112, 121, 124, 129
Kalecki, M., 2, 3, 4, 5, 14, 16, 18, 20, 23, 24, 36, 37, 38, 50, 68, 85, 86, 87, 88, 89, 90, 91, 94, 112
Kaleckian, 20–4, 49, 52, 75
effective demand model, ch. 4
growth model, 112–30
Keen, S., xiii
Keynes, J.M., 2, 3, 4, 5, 14, 17, 18, 19, 26, 55, 68, 85, 86, 87, 89, 90, 94, 95, 104, 110, 112
Keynesian multiplier, 96
King, J.E., 6, 20, 21, 90
Knight, F., 17
Kregel, J.A., 12, 41
Kriesler, P., 14
Kurz, H., 21, 122, 123, 124

labour demand curve, 91, 92–3, 97–101, 103, 105–6
labour supply curve, 97–8
labour supply, endogenous, 120
labour theory of value, 20
laissez-faire, 11
see also free-market ideology
Lancaster, K., 27, 29
Lanzillotti, R.F., 46, 51
Lavoie, M., 6, 7, 29, 64, 70, 79, 91, 122, 124
Le Bourva, J., 55, 57
learning-by-doing, 120
Lee, F., 45

Leibenstein, H., 40
Leijonhufvud, A., 6
lender’s risk, 37
see also principle of increasing risk
León-Ledesma, M.A., 120
Leontief, W., 18, 73
Lévy, D., 49, 126, 127, 128
lexicographic nature, 15, 28, 29–35
and environmental economics, 32, 33–4
see also needs, subordination of liquidity preference, 17, 19
of banks, 17, 69–72
of firms, 69
of households, 69
loanable funds theory, 56
loans, creation of, 57
causation of deposits and, 57, 71–9
lock-in effects, 15, 121
logical time, 13–14
see also historical time
Lucas, R., 3, 17
Lutz, M.A., 26
Lux, K., 26
mainstream economics, see neoclassical
Malinvaud, E., 89
Mankiw, G., 2, 3
marginal utility, 25, 26
marginalism, 25
Marglin, S., 122, 124
market share
and excess capacity, 43–4, 93
and objectives of firms, 37
and pricing, 50–1
mark-up pricing, see pricing
Marris, R., 39
Marshall, A., 3, 26, 86, 89
Marx, K., 3, 10, 18, 19, 20, 85, 89
Marxists, 1, 3, 13, 23, 49, 51, 52, 122, 126
and Sraffians, 19–20
Maslow, A., 28
McCombie, J.S.L., 121, 125
Means, G., 36, 45
megacorps, 32, 36, 37, 99

see also oligopolies
Menger, C., 26
mesoeconomics, 73
methodological individualism, 7, 8–9
Mill, J.S., 3
Minsky, H.P., 14, 19, 72, 73
Mises, L., 54
Mitchell, B., 132
monetarism, 54, 55, 58
Monetarists, 3
monetary circuit, 54, 57, 58, 79–80
monetary policy
austerity, 56, 57
and inflation, 126–7
open market operation, 56, 62
sterilization, 64
see also central bank
monetary production economy, 15, 16, 64, 73–82
money
creation of, 79–80
endogenous, 22, ch.3, 84, 95
exogenous, 54, 56, 58
and real balance effect, 95
see also high-powered money
money supply curve, 65–6
Mongiovi, G., 21
monopolies, 12
see also oligopolies
monopoly power, 52–3
Moore, B.J., 57, 60
Mundell-Fleming model, 63–4

NAIRU (non-accelerating inflation rate of unemployment), 13, 128
see also Phillips curve
natural rate of unemployment, 13, 22, 128
see also Phillips curve
needs
dependency of, 27, 29, 31
heredity of, 27, 29, 31
hierarchy of, see needs,
subordination of
growth of, 27, 29–30
pyramid of, 29–31
satiation of, 26, 27, 30
separability of, 27–8, 29, 30, 31
subordination of, 27, 28, 29, 30, 31
vs. wants, 26
Nell, E.J., 20, 29, 55, 91, 103
neoclassical
characteristics, 2–12
growth model, 110–11
vs. post-Keynesian monetary theory, 56, 63–4
pricing, 36
strands 3
see also TINA
neoclassical synthesis, 2, 3, 84
neo-Ricardians, see Sraffian
new classical economists, 3
new consensus, vs. post-Keynesian, 55–7
new economy, 37
new Keynesians, 2, 3, 13, 55, 56
vs. post-Keynesians, 22–3
see also new consensus
non-ergodicity, 17
see also fundamental uncertainty
normal-cost pricing, see pricing
Ochsen, K., 124
Okun, A.M., 36
oligopolies, 12
oligopolistic markets, 32–40, 50, 112
see also megacorps
Olive, M., 50
open market operation, 56, 62
organicism, 7, 8–9
overdraft economy, 61–2, 64, 71
vs. asset-based economy, 58–9
overnight rate, 59, 60, 63
see also benchmark interest rate
Oxford Economists’ Research Group, 2, 4, 45
Palley, T., 6, 12
Panico, C., 23, 52, 54
paradox of costs, 91–4, 96, 117–19, 122, 123, 126
paradox of thrift, 8, 94, 96, 110–11, 117, 118, 123, 126
paradox of tranquillity, 72
Parguez, A., 58
Pasinetti, L.L., xii, 4, 6, 12, 20, 27, 29, 51
pass-through effect, 50
path-dependency, 9, 14–15, 121
see also historical time; hysteresis
Patinkin, D., 95
Penrose effect, 39
Penrose, E., 39
periods, short and long, 83–4
Phillips curve
horizontal, 128–9
vertical, 13, 128
Pigou, A.C., 95
Pivetti, M., 52
Plihon, D., 124
pluralism, xiv, 15, 18
Pollin, R., 99
portfolio decisions, 69, 81
post-autistic economics, xiv
post-Keynesian
characteristics, essential, 12–18
characteristics of monetary theory, 57–60
fundamentalists, 19–23, 87
Kaleckians see Kaleckian
vs. neoclassical monetary theory, 56, 63–4
vs. new Keynesian, 22–3
Sraffians see Sraffian
strands, 18–23
Pressman, S., 6, 21
presuppositions 6
heterodox vs. neoclassical, 7–12
price elasticity, 28
price flexibility, negative impact of, 15, 16
price, leaders and takers, 34–5, 50–1
pricing
cost-plus pricing, 44–53, 116
dependence of firms, 50–1
full-cost pricing, see pricing, normal-cost pricing
in global markets, 49–50
and market share, 50–1
mark-up pricing, 45, 47, 50, 103–4
normal-cost pricing, 45–6, 47, 48–9, 50
post-Keynesian vs. neoclassical, 36
target-return pricing, 46, 47, 51–2
and theory of prices of production, 46, 48–9
principle of effective demand, see effective demand
principle of increasing risk, 16, 37–8, 68
procedural rationality, see rationality
production, normal level of, 46, 47
production possibility frontier, 10–11
see also capacity utilization rate, normal rate
productivity of labour, 92, 93, 96, 122
and business cycle, 101–2
and employment, 100–1
and income distribution, 100
and work-sharing, 102–7
see also technical progress
profit equation, 85–91, 108
see also Cambridge equation
profit margin
and costing margin 44
endogenous, 120
and profit share, 113
and wages, 94, 102
see also costing margin; paradox of costs
profit rate
and capacity utilization rate, 113
and costing margin, 111–12, 113
cost-side function, 116, 118
decomposition of, 113, 116
effective demand-side function, 116, 118
<table>
<thead>
<tr>
<th>Term</th>
<th>Page(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>expected, 109, 110, 111</td>
<td>109, 110, 111</td>
</tr>
<tr>
<td>and growth rate, 51, 108–10</td>
<td>51, 108–10</td>
</tr>
<tr>
<td>and growth rate of firms 38–40</td>
<td>38–40</td>
</tr>
<tr>
<td>normal rate, 46, 48, 51, 52, 123</td>
<td>46, 48, 51, 52, 123</td>
</tr>
<tr>
<td>uniform rate, 46, 48–9</td>
<td>46, 48–9</td>
</tr>
<tr>
<td>and wages, xiv, 94, 117–19, 122</td>
<td>xiv, 94, 117–19, 122</td>
</tr>
<tr>
<td>see also paradox of costs; target rate of return</td>
<td></td>
</tr>
<tr>
<td>and profit margin, 113</td>
<td>113</td>
</tr>
<tr>
<td>see also income distribution</td>
<td></td>
</tr>
<tr>
<td>profits</td>
<td></td>
</tr>
<tr>
<td>consumption out of, 85–6, 95</td>
<td>85–6</td>
</tr>
<tr>
<td>macroeconomic determination of, 85–6</td>
<td>85–6</td>
</tr>
<tr>
<td>normal, 42</td>
<td>42</td>
</tr>
<tr>
<td>and objectives of firms, 37–8</td>
<td>37–8</td>
</tr>
<tr>
<td>propensity to consume, 94</td>
<td>94</td>
</tr>
<tr>
<td>see also paradox of thrift</td>
<td></td>
</tr>
<tr>
<td>propensity to import, 125</td>
<td>125</td>
</tr>
<tr>
<td>propensity to save, 90, 96</td>
<td>90, 96</td>
</tr>
<tr>
<td>and national income, 94</td>
<td>94</td>
</tr>
<tr>
<td>see also paradox of thrift</td>
<td></td>
</tr>
<tr>
<td>quadruple accounting principle, 80</td>
<td>80</td>
</tr>
<tr>
<td>quantity theory of money, 54, 55</td>
<td>54, 55</td>
</tr>
<tr>
<td>rationality</td>
<td></td>
</tr>
<tr>
<td>procedural, 7, 9–10, 17, 26</td>
<td>7, 9–10, 17, 26</td>
</tr>
<tr>
<td>substantive, 7, 9–10</td>
<td>7, 9–10</td>
</tr>
<tr>
<td>real balance effect, 95</td>
<td>95</td>
</tr>
<tr>
<td>realism, 7–8</td>
<td>7–8</td>
</tr>
<tr>
<td>and pluralism, 18</td>
<td>18</td>
</tr>
<tr>
<td>Regulation School, 1, 2, 3, 18, 23, 124</td>
<td>1, 2, 3, 18, 23, 124</td>
</tr>
<tr>
<td>repo operation 62</td>
<td>62</td>
</tr>
<tr>
<td>repo rate, 59, 60</td>
<td>59, 60</td>
</tr>
<tr>
<td>reserves</td>
<td></td>
</tr>
<tr>
<td>creation of, 61–3</td>
<td>61–3</td>
</tr>
<tr>
<td>demand for, 60</td>
<td>60</td>
</tr>
<tr>
<td>excess, 57</td>
<td>57</td>
</tr>
<tr>
<td>in open economy, 63–4</td>
<td>63–4</td>
</tr>
<tr>
<td>retained earnings, 37–8, 67, 79</td>
<td>37–8, 67, 79</td>
</tr>
<tr>
<td>Reynolds, P.J., 6</td>
<td>6</td>
</tr>
<tr>
<td>Ricardo, D., 3, 5, 99</td>
<td>3, 5, 99</td>
</tr>
<tr>
<td>risk premium, 67, 72, 73</td>
<td>67, 72, 73</td>
</tr>
<tr>
<td>Robbins, L., 10</td>
<td>10</td>
</tr>
<tr>
<td>Rochon, L.P., 55, 60</td>
<td>55, 60</td>
</tr>
<tr>
<td>Rogers, C., 56</td>
<td>56</td>
</tr>
<tr>
<td>Roncaglia, A., 21, 23</td>
<td>21, 23</td>
</tr>
<tr>
<td>Rosser, J.B., 22</td>
<td>22</td>
</tr>
<tr>
<td>Rossi, S., 55</td>
<td>55</td>
</tr>
<tr>
<td>Rotheim, R.J., 22</td>
<td>22</td>
</tr>
<tr>
<td>Rowthorn, B., 112</td>
<td>112</td>
</tr>
<tr>
<td>Roy, R., 30</td>
<td>30</td>
</tr>
<tr>
<td>rules of thumb, 10</td>
<td>10</td>
</tr>
<tr>
<td>Samuelson, P., 2, 3, 114</td>
<td>2, 3, 114</td>
</tr>
<tr>
<td>saving, see investment</td>
<td></td>
</tr>
<tr>
<td>saving function, 108–9, 110, 111, 114–17, 118</td>
<td>108–9, 110, 111, 114–17, 118</td>
</tr>
<tr>
<td>Sawyer, M., 6, 20, 36</td>
<td>6, 20, 36</td>
</tr>
<tr>
<td>Say, J.-B., 3</td>
<td>3</td>
</tr>
<tr>
<td>Say’s Law, 104</td>
<td>104</td>
</tr>
<tr>
<td>scarcity, and production, 7, 10–11</td>
<td>7, 10–11</td>
</tr>
<tr>
<td>Schefold, B., 21</td>
<td>21</td>
</tr>
<tr>
<td>Schumperter, J., 54</td>
<td>54</td>
</tr>
<tr>
<td>Schumpeterian, 1</td>
<td>1</td>
</tr>
<tr>
<td>Seccareccia, M., 97</td>
<td>97</td>
</tr>
<tr>
<td>Setterfield, M., 7</td>
<td>7</td>
</tr>
<tr>
<td>settlement balances, 60, 65</td>
<td>60, 65</td>
</tr>
<tr>
<td>Shackle, G.L.S., 17</td>
<td>17</td>
</tr>
<tr>
<td>Shapiro, N., 13</td>
<td>13</td>
</tr>
<tr>
<td>Simon, H.A., 9, 26, 27</td>
<td>9, 26, 27</td>
</tr>
<tr>
<td>Smith, A., 3, 10</td>
<td>3, 10</td>
</tr>
<tr>
<td>Smithin, J., 56</td>
<td>56</td>
</tr>
<tr>
<td>Social economics, 1, 25</td>
<td>1, 25</td>
</tr>
<tr>
<td>Solow, R., 3, 110</td>
<td>3, 110</td>
</tr>
<tr>
<td>Spash, C.L., 32</td>
<td>32</td>
</tr>
<tr>
<td>Sraffa, P., 2, 3, 4, 5, 18, 19, 73</td>
<td>2, 3, 4, 5, 18, 19, 73</td>
</tr>
<tr>
<td>Sraffian, xii, 1, 5, 19–23, 52, 111, 112, 122</td>
<td>1, 5, 19–23, 52, 111, 112, 122</td>
</tr>
<tr>
<td>theory of prices of production, 46, 48–9</td>
<td>46, 48–9</td>
</tr>
<tr>
<td>see also post-Keynesian, strands</td>
<td></td>
</tr>
<tr>
<td>Stanley, T.D., 128</td>
<td>128</td>
</tr>
<tr>
<td>state intervention, 7, 11–12, 99</td>
<td>7, 11–12, 99</td>
</tr>
</tbody>
</table>
Index

Steedman, I., 20
Steiger, O., 57
Steindl, J., 43, 50, 51, 112
sterilization, 64
Stiglitz, J.E., xii, 2, 3, 22
stock-flow coherent framework, see systemic monetary framework
Stockhammer, E., 120
Structuralist, 1, 23
substitution effect, 16, 28, 97
surplus approach, see Sraffian
Sylos Labini, P., 39, 49
systemic monetary framework, 73–82, 124
target rate of return, 46, 48, 50
determinants of, 51–3
see also pricing, target-return pricing
target-return pricing, see pricing
Taylor, J.B., 3, 55
Taylor, L., 74, 81, 112, 129
Taylor rule, 65
technical coefficients, 40, 48, 92, 113
technical progress, 11, 41
and employment, 99–104
endogenous, 120–1
and growth rate, 121–2
see also productivity of labour
technology, Leontief-type, 40
theory of prices of production, see Sraffian
Thirlwall, A.P., 120, 121, 125
TINA (There Is No Alternative), xi, xii, 23, 83, 87, 91, 99, 111, 119, 122
see also neoclassical
Tobin, J., 2, 3, 18, 74, 75, 84, 95
Tooke, T., 54
transaction-flow matrix, 75–81, 85
uncertainty, see fundamental uncertainty
unemployment
and bargaining power, 120
institutional impacts on, 98, 99
technological, 99–101, 102, 103–4
and working-sharing, 102–7
see also employment
utilization function, 90–1, 92
Van Ees, H., 22
Veblen, T., 2, 3, 18, 31, 37
Ventelou, B., xiv
Verdoorn’s Law, 121–2, 127
Vickrey, W., 19
wage-price spiral, 112
wages
and capacity utilization rate, 118–19
consumption out of, 85
and costing margin, 100–7
and employment, xiv, 83, 91–4, 97–101
and growth rate, 112, 114–19, 122
minimum wage laws, 99
and profit rate, xiv, 94, 117–19, 112
see also labour demand curve; labour supply curve; paradox of costs
Walras, L., 3
Walrasian general equilibrium theory, 2, 8, 22
Walters, B., 18
wants, vs. needs, 26
Washington Consensus, xi–xii
wealh effect, 95
Weintraub, S., 3, 19, 87
Wicksell, K., 3, 54, 55
Wolfson, M.H., 67, 70
Wood, A., 38, 51, 112
work-sharing programme, 104–7
Wray, L.R., 54
Young, D., 18