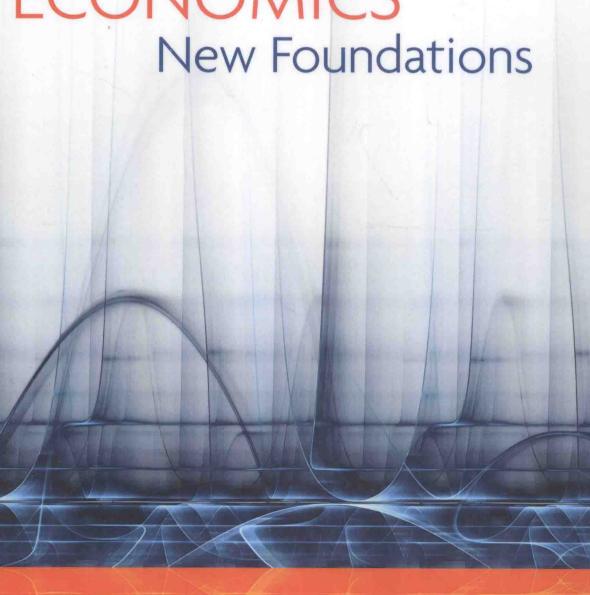
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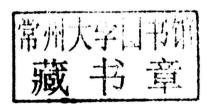
POST-KEYNESIAN ECONOMICS



Post-Keynesian Economics: New Foundations

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Notation used in the book

		Chapter
а	real autonomous expenditures	5
A	nominal autonomous expenditures	5
A_{LT}	number of long-term securities	4
A_{ST}^{EI}	short-term assets	4
\overrightarrow{ABP}	accounting balance of payments	7
AFAB	accounting financial account balance	7
B	debt of firms (or of households, Chapter 6)	3, 4, 6
B	bank loans	4, 6
BP	balance of payments	7
c_v	propensity to consume out of wealth	5, 6
\dot{C}	consumption	4, 7
CAB	current account balance.	4, 7
D	deposits	4, 6
DC	direct costs	3
e	estimate of a parameter	1
e	price elasticity of demand (its absolute value)	3
e	nominal exchange rate	7, 8
\overline{e}	fundamental exchange rate assessed by fundamentalists	7
e_R	real exchange rate	7, 8
\overline{e}_R	real exchange rate target	8
e_c^e	exchange rate expected by chartists	7
e_f^e	exchange rate expected by fundamentalists	7
e_c^e e_f^e e_w	Webb effect elasticity (efficiency wage effect elasticity)	5
E	rate of employment	6
f	ratio of overhead workers to variable workers at full	5, 6, 8
	capacity	
$f \\ f_f \\ F$	forward exchange rate (in logs)	7
f_f	financial to tangible asset ratio	3
F	forward exchange rate (in level)	7
FC	full capacity of the firm	3
FC_{th}	theoretical full capacity	3
FY	foreign income accruing to domestic residents	4, 7
FAB	financial account balance in its economic sense	7
g	rate of capital accumulation (growth rate)	3, 6–8
g_B	balance-of-payments constrained growth rate	7
g_q	actual rate of growth of output	6
g_n	natural rate of growth	5–8

g_y	growth rates of sales	6
g_z	growth rate of autonomous consumption expenditures	6
g^i	investment function (in growth terms)	6–8
g^{s}	saving function (in growth terms)	6–8
g_r^s	saving function of rentiers	6
G	government expenditure	4, 5, 7
h	annual number of hours worked per worker	5
H	high-powered money (banknotes, reserves)	4
i	interest rate	3–6
i_B	interest rate on borrowed capital or loans	3, 4, 6
i_D	interest rate on bank deposits	4, 6
i_d	domestic interbank interest rate	7
i_f	foreign interbank interest rate	7
i_R	real rate of interest	7
i_s	dividend rate on stock-market shares	3
i_s	rate of return on stock-market shares	4
i_{CB}	target interest rate of the central bank	4
i_{LT}	yield on long-term securities	4
i_{ST}	yelds on short-term securities	4
i_{fair}	fair rate of interest	4
\hat{I}	investment expenditure	3–7
I_h	residential investment	4
I_f	investment by firms	4
ÍN	inventory stocks of firms	4
j	ratio of material costs to direct labour costs	3, 7, 8
J	=(1+j)	8
k	number of machines per worker	1
K	capital stock	4, 6
K_B	capital borrowed through loans or bond issues	3
K_s	capital owned by the shareholders	3
1	debt to capital ratio	3, 6
L	labour employment	1, 4, 5, 6
L_f	indirect labour, overhead labour	5
L_v	direct labour, variable labour	5
$L_{\it fe}$	full employment	5
L_y^{fc}	direct labour at full capacity	5
m	share of gross profits	3, 5
m_{va}	share of gross profits in value added	3
M	number of machines	1, 3
M_d	deflated capital	1
M	imports	4, 7, 8
MR	marginal revenue	3
MC	marginal cost	3
n	labour per unit of output $(=1/y)$	3
N	active population	1, 6
NDC	normal direct costs	3

NUDC	normal unit direct cost	3
NUC	normal unit cost	3, 5
OF	own funds of banks	4
OR	official international reserves	7
p	price level	1, 5, 8
p_d	price of domestic goods	7, 8
	price of foreign goods	7, 8
$p_f p_i$	price of machines	3
p_m	price of imports	7
	price of exports	7
p_x	price of stock-market shares	4, 6
p_s	price of long-term securities	4
$egin{aligned} p_{\scriptscriptstyle LT} \ P \end{aligned}$	profits	3, 5–7
P_D	dividends	4
P_{ND}	non-distributed profits (retained earnings)	4
	output level	
q	deflated output	1, 3, 5, 7
q_d		5
q^d	real aggregate demand real aggregate supply	5
q^s	normal or standard level of output	
q_n		3, 5
q_{fc}	full-capacity level of output	5
r	rate of profit	1, 6, 8
r ^e	expected rate of profit	6
r_n	normal rate of profit, target rate of return on capital	3, 5, 6, 8
S	spot exchange rate (in logs)	7
S_f	retained earnings ratio	3, 6
S_h	propensity to save of households	6
S_p	propensity to save out of profits	5–8
S_r	propensity to save of rentiers	5
S_w	propensity to save out of wages	
S_y	propensity to save out of income	5, 7
S_{yd}	propensity to save out of disposable income	5
S	spot exchange rate (in level)	7
S	saving of the private sector	4, 7
$S_f \ S_h$	retained earnings of firms	3, 4
	saving of the household sector	4, 7
SE	standard error of estimate	1
tb	trade balance ratio	7
T	taxes	4, 7
TB	trade balance	7
u	rate of capacity utilization	5-8
u^e	expected rate of capacity utilization	6
u^k	short-period Keynesian or Kaleckian equilibrium rate	6
	of capacity utilization	
u_f	foreign rate of capacity utilization	7, 8
u_n	normal or standard rate of capacity utilization	3, 5–8

U	rate of unemployment	1
UC	unit cost	3
UDC	unit direct cost (or average variable cost)	3, 5
UDLC	unit direct labour cost	3, 7
UMC	unit material cost	3, 7
v	capital to full-capacity output ratio	3, 5–8
v_o	capital to output ratio	1, 7
v_m	material inputs to output ratio	7
v_r	valuation ratio (Tobin's average q ratio)	6
$\overset{\prime }{V}$	wealth	4, 6
w	nominal wage rate	1, 3–6, 8
w_f	nominal wage of overhead labour	5, 6
w_M	mean nominal wage rate	5
w_v	nominal wage rate of variable labour	5, 6
X	units of consumer goods	2
X	proportion of investment financed by new share issues	3
X	exports	4, 7
y	output per worker (labour productivity)	1, 5, 6
y_f	labour productivity of overhead labour	5
y_h	hourly labour productivity	5
y_v	labour productivity of variable labour	5, 8
Y	individual income	2
Y	income (gross domestic product)	5, 7
Y_d	disposable income of the private sector	5
Y_{fe}	full-employment GDP	5
z	units of characteristics	2
Z	ratio of autonomous expenditures to capital stock	6
Z	autonomous consumption expenditures of capitalists	6
Z	world income	7
Greek letters		Chapter
α (alpha)	output elasticity of labour	1
α	proportion of the feasible range of extra necessaries goods	2
α_1	parameter designed to calculate the natural rate of growth	6
α_i	parameters of a modified Phillips curve	8
β (beta)	output elasticity of capital	1
β_e	impact of an increase in the real exchange rate on the	7, 8
Pe	domestic rate of capacity utilization	7, 0
β_u	income elasticity of import demand in the domestic	7, 8
ß	economy income elasticity of import demand in the foreign	7 8
eta_{uf}	economy	7, 8
γ (gamma)	parameter reflecting the animal spirits of firms or the	6-8
14.5	trend growth rate of sales	
γ_i	effect of the interest rate on the rate of accumulation	6

γ_r	effect of the profit rate or of the normal profit rate on	6
	the rate of accumulation	6–8
γ_u	effect of the rate of capacity utilization on the rate of accumulation	0-8
γ_{ν}	effect of the valuation ratio on the rate of accumulation	6
γ_{π}	effect of the profit share on the rate of accumulation	6-8
Γ^{π}	adjustment coefficient related to the real exchange rate	7
ε (epsilon)	error term	1
ε	price elasticity of demand (in absolute terms)	3
ε	Webb effect of the real wage on labour productivity	5
ε	world income elasticity of the demand for exports	7
	coming from the domestic economy	
ζ (zeta)	consumption emulation coefficient of workers	6
η (eta)	price elasticity of the demand for exports	7
η_1	effect of a change in the wage share on the growth rate	6
111	of output	Ō
n	effect of technical progress on the growth rate of output	6
η_2 θ (theta)	percentage mark-up on direct costs (percentage gross	1, 3, 5, 8
o (meta)	costing margin)	1, 3, 3, 6
Θ	percentage net costing margin	3, 5
ι (iota)	reaction parameter tied to changes in expected spot rate	7
\mathbf{t}^T	target inventories to sales ratio	3
	average markup of prices over unit labour costs	8
κ (kappa)	proportion of bank deposits in household wealth	6
κ_d	proportion of stock-market shares in household wealth	6
K _s		6
λ (lambda)	growth rate of labour productivity	6
λ_g	Kaldor-Verdoorn effect of output growth on labour	O
2	productivity growth	
λ_k	effect of the growth rate of capital per head on labour	6
2	productivity growth	,
λ_{π}	effect of the profit share on labour productivity growth	6
λ_{ω}	effect of real wage growth on labour productivity growth	6
2	(dynamic Webb effect)	
λ_{ij}	indicators of liquidity preference for various assets	4
μ (mu)	Hicksian measure of technical progress	1
μ	reaction of the rate of capacity utilization to excess	6
	demand	_
μ	propensity to import goods from abroad	7
μ_1	adjustment parameter tied to the expected rate of	6
	utilization	112
μ_2	adjustment parameter tied to the normal rate of	6
	utilization	
v (nu)	parameter related to export prices	7
ξ (xi)	implicit function indicating how the debt ratio changes	6
- 2-35	as a function of itself and the growth rate of output	
π (pi)	net share of profits in national income (or in value added)	5-8

π^d	net share of profits, from the demand side	5, 6
π^s	net share of profits, from the supply side	
П	income elasticity of the demand for imports	7
ρ (rho)	ratio of the funds that can be borrowed to the retained	3
	earnings	
σ (sigma)	risk and illiquidity premium or discount	4
σ	ratio of the wage of overhead labour relative to that of	5
	direct labour	
σ	reaction parameter tied to the retained earnings ratio	6
$\sigma_{\scriptscriptstyle B}$	illiquidity and risk premium on bank loans	4
σ_i	risk and illiquidity discounts associated with different assets	4
τ (tau)	weighted sum of the growth rates of the real wage and	1
t (tau)	the profit rate	
τ	tax rate	5
τ	tariff rate	7
v (upsilon)	parameter related to import prices	7
φ (phi)	reaction of the profit share to excess demand	6
ϕ_1	adjustment parameter tied to the expected profit rate	6
ϕ_1 ϕ_2	normal profit rate adjusts to the values taken by the real-	6, 8
Ψ_2	ized profit rate	0, 0
ϕ_{c}	reaction parameter related to expectations of chartists	7
Φ_{Γ}	reaction parameter related to expectations of	7
71	fundamentalists	
χ ₁ (chi)	impact of the rate of capacity utilization on price	6
X (1 ()	inflation	
χ_2	impact of the rate of inflation on the interest rate	6
χ_3	negative effect of the rate of capacity utilization on the	6
203	trend rate of growth	
χ_4	negative effect of an increase in the rate of employment	6
	on the trend rate of growth	
χ_5	negative effect of an increase in the rate of unemploy-	6
	ment on price inflation	
χ_6	positive effect of the rate of unemployment on the profit	6
	share	
χ_7	positive effect of an increase in the rate of employment	6
	on the rate of technical progress	
χ_8	negative effect of an increase in the rate of unemploy-	7
	ment on the rate of technical progress	
ψ (psi)	implicit function indicating how the growth rate of	6
	output changes as a function of itself and the debt ratio	
Ψ	price elasticity of the demand for imports	7
Ψ_i	(i = 1, 2, 3) Harrodian destabilizing mechanisms	6
Ψ	parameters pertaining to price inflation	8
ω (omega)	real-wage rate $(= w/p)$	1
$\mathbf{\omega}_f$	real-wage rate targeted by firms	6

Notation used in the book

 ω_h $\omega_{\scriptscriptstyle M}$

 ω_w $\Omega^{"}$

Notation used in the book	xiii
hourly real wage	5
mean real-wage rate	5
real wage targeted by workers	6
parameters pertaining to wage inflation	8

Preface

The first version of this book was published in 1992 as Foundations of Post-Keynesian Economic Analysis. Ten years later, in 2002, I was asked to write a new edition; in fact Edward Elgar and Alan Sturmer proposed that I submit a complete rewrite instead of simply making minor modifications. I initially said that I could not start on this project before January 2004. Nothing much happened on that front, however, as I was busily collaborating with Wynne Godley in writing several articles and our Monetary Economics book, which attempted to fully integrate the real and financial sides of economic models in a truly consistent manner. That book was published in early 2007, and so in February 2007 I felt confident enough to sign a contract to deliver New Foundations by September 2009. But in the meantime I became involved with another time-consuming project with my long-time colleague Mario Seccareccia, adapting the Baumol and Blinder first-year textbook to the Canadian market, which ate all of my sabbatical time. Finally, Tara Gorvine at Edward Elgar reminded me that I had missed the delivery date, at which point I said that I would aim for December 2012. As I was also involved with an INET grant led by Mario Seccareccia, this is when I actually truly started working on the New Foundations, having accumulated notes on things to modify or topics to add for nearly ten years. I was not idle during this whole period. Between 2002 and 2012, besides the books mentioned above and a toned-down version of Foundations called Introduction to Post-Keynesian Economics, I calculated that I published four edited books, 35 book chapters and 42 journal articles.

To some extent, the present book is the result of several of these previously published papers. It also arises from some presentations that I made at various conferences, seminars and summer schools. Some chapters have not changed much, because not much new has been produced on the topics of these chapters over the last 20 years. This is particularly the case of the chapters on pricing and on employment. But the other chapters have required quite a lot of work, to keep track of the immense amount of new publications corresponding to the material covered in these chapters. I have also added a chapter on the international economy, which was an omission in the 1992 *Foundations* book. And of course the *New Foundations* reflects some slow changes in my own views, either endogenously, or through interaction with colleagues from all over the world.

But whatever the changes, the purpose of the book remains the same: it is targeted mainly at honours students and masters students, but I am sure that PhD students can also benefit from reading it. It may as well be useful to young colleagues who, despite being trained in mainstream economics, are looking for an alternative view of the world. The purpose is to provide comprehensive access to post-Keynesian economics, a guide through the maze of publications, showing that it does have some coherence. The book is not an introduction to post-Keynesian economics; rather, I think it is fair to say that it assumes that students have some knowledge of alternative theories in economics.

The outline of the new version is roughly similar to that of the old one. When I wrote *Introduction to Post-Keynesian Economics* (2006), first for a French audience in 2004, the editor of the book series did not like the order of the chapters that I had then proposed, and he suggested another order, which turned out to be identical to that of *Foundations*, so I suppose that this outline is indeed the most appropriate for the purpose at hand. Readers will note that I start out with general concepts, dealing then with the individual consumer and the individual firm, these chapters being followed by the chapter on money and credit, which constitutes the introductory chapter to macroeconomics – employment, growth and inflation. The chapter on the theory of inflation has been scaled down, compared to its 1992 version, perhaps reflecting the lesser concerns about inflation. And already stated, I have added a full chapter on open economies, about which I felt more comfortable to write, in part thanks to my past collaboration with Wynne Godley.

In the preface to the 1992 book, I thanked my spouse Camille for not having delivered our third child before I had finished the manuscript. This remark speared the attention of a few readers, who asked me what then happened. The three boys are now in their twenties. They all went to university and two of them are still there, the third having started a business. I still live with Camille, whom I met at a Christmas university party about 30 years ago, which seems like a great achievement given what happens now to couples, and I thank her for that.

On a more scholarly note, I wish to thank my colleague Mario Seccareccia for his intellectual stimulation during the 35 years that we spent together at the University of Ottawa and for his comments on Chapter 9. I also wish to thank colleagues who have spotted mistakes and have provided useful comments: Antonio Carlos Macedo e Silva, from the University of Campinas, on the growth chapter (Chapter 6); John McCombie, from the University of Cambridge, on the Harrodian open-economy model (Chapter 7); and Tom Stanley, from Hendrix College (Arkansas), on meta-regression analysis (Chapter 1). Eckhard Hein, from the Berlin School of Economics and Law, patiently went through most of the manuscript and provided several suggestions.

Students of mine or students who came to visit the University of Ottawa have also helped: Sima Ghasemi painfully went through the whole manuscript to pick up missing references, and she built up the list of notations used throughout the chapters; Dylan Gowans helped put the references in the right format and prepared the index; Louison Cahen-Fourot provided comments on Chapters 1, 2 and 9; Simon Julita did the same for Chapters 2 and 3; and post-doc Brett Fiebiger provided extensive comments on Chapter 4. Finally, when he came to visit me in 2015, Professor Won Jun Nah, from Kyungpook National University, noted several small mistakes in the published version, which are corrected in this new printing.

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Essentials of heterodox and post-Keynesian economics*

1.1 THE NEED FOR AN ALTERNATIVE

1.1.1 The Global Financial Crisis

The Global Financial Crisis has been a wake-up call for economists. The alarm should have rung much earlier, when Japan and then East Asia were struck by a huge financial crisis in the 1990s, but few economists in the Western world paid much attention to the difficulties of these far-flung countries. The Global Financial Crisis is sometimes said to have begun in the summer of 2006, when real-estate prices in the USA stopped rising and started to fall, but few of us thought that this local phenomenon would induce a world crisis. Surprisingly, and demonstrating the importance of globalization, the first signs of financial tension arose on the European interbank markets at the beginning of 2007, when European banks started to express anxiety over the value of their financial investments in the USA. A mini-crisis occurred during the summer of 2007, and despite the difficulties encountered by issuers of asset-backed commercial paper, most of us believed that central banks had played their role and had relaxed the tensions.

This illusion persisted until September 2008, when the government-sponsored agencies Freddie Mac and Fanny Mae had to be rescued, when Wall Street banks tumbled one after the other, when two large banks – Washington Mutual and Wachovia – had to be acquired, and when the giant insurer AIG had to be bailed out by government, as was then a string of large European banks, including the whole Icelandic and Irish banking systems. The culmination of all this was that the US government decided to let go the Wall Street bank Lehman Brothers, sending a chilling message all over the banking world. Then, with the usual sources of finance cut off, as corporate paper markets started to collapse, and as banks became reluctant to grant lines of credit to new or returning customers, the real sector got into trouble, and even General Motors needed to be rescued by the American and the Canadian governments. The economic recession, caused by the imprudence of bankers and the incompetence or fraudulent behaviour of the rating agencies, led to large government deficits as tax revenues fell and some countries tried to counteract the slowdown with stimulus programmes, which achieved some success.

But this was not the end of such troubles. In late December 2009, it was noted that a small country of the eurozone, Greece, had particularly bad economic indicators and had hidden from official statistics some of its debt, thus creating worries about its capacity to redeem it. Investors realized that the eurozone had a peculiar setup, designed for a world in which financial crises could not occur, as the European Central Bank, in contrast to most other central banks, did not normally purchase government bonds. This exacerbated the worries of investors about the capacity of (some) eurozone countries to redeem

their debt. Worries over Greece spread to other countries – Ireland, Portugal, Spain and Italy – as the European Central Bank declined to intervene and purchase sovereign bonds except when it was too late, thus causing a sovereign debt crisis. With the possible feedback effects of sovereign defaults on the banks detaining sovereign debt, and with all European countries pursuing fiscal austerity policies, at the time of writing (2013) it is hard to see where and when all this globalized turmoil will end; some economists forecast a 'perfect storm'.

Roughly speaking, economists have had three reactions to the financial crisis. The middle reaction has been to say that existing mainstream theory is fine, but that it needs to be slightly tweaked and improved so as to take into account elements that were previously left aside and which explain why the crisis could not be predicted. The second reaction, associated with neo-Austrian and new classical authors, or those that Paul Krugman has called fresh-water economists, is to argue that the crisis was caused by misguided regulations, bad government interventions, ill-advised decisions by central banks, unsound government budgets, and by the naughty Chinese who had rigged their exchange rate. Finally, the third reaction is to claim that recent institutions, regulations and economic policies have been based on erroneous economic theories, and that these need to be scratched out. Of course, this last opinion has always been the belief of heterodox authors, and post-Keynesian authors in particular, but with the advent of the financial crisis, several former partisans of mainstream economics have changed their mind and been quite critical of standard theory.

1.1.2 Recantations

Perhaps the most surprising such recantation is that of Richard Posner, a judge and a senior lecturer at the University of Chicago School of Law. Posner was a stern defender of free markets and Milton Friedman's ideology. In his book, titled The Failure of Capitalism, Posner (2009a) argues that deregulation went too far and that financial markets need to be heavily regulated, because banking has a systemic significance that other industries do not have. In a follow-up article, provocatively titled 'How I became a Keynesian', Posner (2009b) goes further, arguing that 'we have learned since September [2008] that the present generation of economists has not figured out how the economy works'. Posner believes that Keynes's General Theory, despite its apparent antiquity, is the best guide to the crisis, because 'Keynes wanted to be realistic about decision-making rather than explore how far an economist could get by assuming that people really do base their decisions on some approximation to cost-benefit analysis'. A very similar point, showing disarray at the obviously counterfactual assumptions about human behaviour entertained by mainstream economists, was also made by Akerlof and Shiller (2009, p. 268) when they wrote that 'in their attempt to clean up macroeconomics and make it more scientific, the standard macroeconomists have imposed a research structure and discipline by focusing on how the economy would behave if people had only economic motives and they were also fully rational'. Robert Skidelsky (2009, p.x), the historian biographer of Keynes, claimed that to understand economics it was better not to be a professional economist, the advantage being 'of not having been brainwashed to see the world as most economists view it: I have always regarded their assumptions about human behaviour as absurdly narrow'.

Former winners of the Bank of Sweden prize in economic sciences in memory of Alfred Nobel (to which we will simply refer as the Nobel Prize in economics from now on), such as Paul Krugman and Joseph Stiglitz, have been unrelenting critics of mainstream economics, as reflected in the works of most of their peers, criticizing both their assumptions and their apparent lack of knowledge of elementary Keynesian economics, as the most famous new classical authors reverted to pre-Keynesian arguments to counter the justification of stimulus programmes. The most abrasive indictment of mainstream economics is probably that of Willem Buiter, an LSE professor and a former member of the Monetary Policy Committee of the Bank of England. In the following long quote, Buiter questions the usefulness of all the fads in macroeconomics over the last 30 years. Indeed, he would thus like us to go back to Old Keynesian authors such as Tobin, or post-Keynesian authors such as Minsky, or else to authors who have demonstrated originality, such as Shiller, Akerlof and Stiglitz, whose works show concerns that are close to those found in the works of post-Keynesian authors.

Indeed, the typical graduate macroeconomics and monetary economics training received at Anglo-American universities during the past 30 years or so may have set back by decades serious investigations of aggregate economic behaviour and economic policy-relevant understanding. It was a privately and socially costly waste of time and other resources. Most mainstream macroeconomic theoretical innovations since the 1970s (the New Classical rational expectations revolution associated with such names as Robert E. Lucas Jr., Edward Prescott, Thomas Sargent, Robert Barro etc, and the New Keynesian theorizing of Michael Woodford and many others) have turned out to be self-referential, inward-looking distractions at best. Research tended to be motivated by the internal logic, intellectual sunk capital and esthetic puzzles of established research programmes rather than by a powerful desire to understand how the economy works—let alone how the economy works during times of stress and financial instability...

In both the New Classical and New Keynesian approaches to monetary theory (and to aggregative macroeconomics in general), the strongest version of the efficient markets hypothesis (EMH) was maintained. This is the hypothesis that asset prices aggregate and fully reflect all relevant fundamental information, and thus provide the proper signals for resource allocation. Even during the seventies, eighties, nineties and before 2007, the manifest failure of the EMH in many key asset markets was obvious to virtually all those whose cognitive abilities had not been warped by a modern Anglo-American Ph.D. education. But most of the profession continued to swallow the EMH hook, line and sinker, although there were influential advocates of reason throughout, including James Tobin, Robert Shiller, George Akerlof, Hyman Minsky, Joseph Stiglitz and behaviourist approaches to finance. (Buiter, 2009)

There is indeed a great deal of dissatisfaction with economic theory and economists, at all levels. The administrators at the IMF have set up an enquiry to find out why IMF advice has led to such disastrous results in so many countries, discovering that the fault lay in the theories defended by their economists. Government and central bank officials are ever more wary of the advice proposed by their professional economists. Managers of large investment funds, burned by the financial crisis, search for alternative views on the economy. Students, in particular those in France who launched the post-autistic economics movement as a protest in 2000 and followed up with the PEPS-économie (2013) movement, have long been complaining that they are being brainwashed by their economics professors, who put forward a single view without telling the students that there exist other theories. Students further complain that all the emphasis is on techniques and formalization, with little link with actual economic events (Fullbrook, 2003). Even the

Queen of England complained in November 2008 that nobody had apparently been able to forecast the Global Financial Crisis (Earl, 2010). It took more than half a year for British orthodox economists to send a reply to the Queen, arguing that all this was caused by a lack of imagination on their part.

1.1.3 The Necessity of a Post-Keynesian Alternative

The argument put forward here is that, while prediction in economics has always been difficult, the danger of following bad advice has been greatly increased by the hegemony of neoclassical economics, that is, the fact that departments of economics throughout the world have been monopolized by this single broad view. This is in contrast to what occurs in other university departments, such as sociology or psychology, where directly opposite views are given pride of place in first-year textbooks. Dissent, or at least dissent of a certain kind, has been repressed in economics departments. But dissent is what is needed for a vibrant academic environment. Dissent, however, must go beyond criticism: a positive alternative must also be put forward. This is the main purpose of the book.

The crisis has clearly demonstrated, if such a demonstration were needed after the failure of the Washington Consensus just a few years earlier, that there is something drastically wrong with the dominant theory that has provided such bad advice to the decision-makers. As could be found on the website of the rather conservative *Financial Times* in 2009, 'the credit crunch has destroyed faith in the free market ideology'. In view of these failures, it is our social duty as economists, a duty that should have a high social rate of return, to develop an alternative outlook of the economic system. It is our duty to sustain and develop the heterodox traditions that question the efficiency and stability of unfettered markets.

In this book, I wish to highlight the 'post-Keynesian' tradition in economics. We shall see later that this school of thought can be subdivided into several strands. But for now we can say as a first approximation that this tradition extends and generalizes the seminal ideas that were developed by the radical followers of John Maynard Keynes (hence the term 'post-Keynesian'). These developments initially occurred mainly at the University of Cambridge, where Keynes was located. The originality of these ideas became pretty obvious in the 1950s, as researchers such as Nicholas Kaldor and Joan Robinson came to prominence. Of course, there were also other famous heterodox economists in Cambridge, most notably Richard Kahn, Pierro Sraffa and Maurice Dobb. This generation was then followed by another one, that of Luigi Pasinetti, Geoffrey Harcourt and Wynne Godley, who came with ideas of their own, albeit compatible with this radical Cambridge tradition. Outsiders also made contributions to this tradition, the most notable certainly being Michał Kalecki, the Polish economist. Starting with the early 1970s, several American economists contributed in their own way to this tradition and helped to institutionalize post-Keynesian economics. Naturally, the contributors to post-Keynesian economics can now be found throughout the globe and in certain cases can be associated with other schools of thought, as is the case for John Kenneth Galbraith, who is usually perceived as some kind of radical Institutionalist.