GREAT THINKERS IN ECONOMICS

Series Editor: A.P. Thirlwall



MICHAL KALECKI

Julio López G. and Michaël Assous

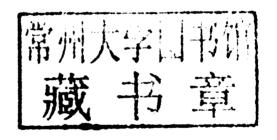


Michal Kalecki

Julio López G.

and

Michaël Assous







© Julio López G. and Michael Assous 2010

All rights reserved. No reproduction, copy or transmission of this publication may be made without written permission.

No portion of this publication may be reproduced, copied or transmitted save with written permission or in accordance with the provisions of the Copyright, Designs and Patents Act 1988, or under the terms of any licence permitting limited copying issued by the Copyright Licensing Agency, Saffron House, 6–10 Kirby Street, London EC1N 8TS.

Any person who does any unauthorized act in relation to this publication may be liable to criminal prosecution and civil claims for damages.

The authors have asserted their rights to be identified as the authors of this work in accordance with the Copyright, Designs and Patents Act 1988.

First published 2010 by PALGRAVE MACMILLAN

Palgrave Macmillan in the UK is an imprint of Macmillan Publishers Limited, registered in England, company number 785998, of Houndmills, Basingstoke, Hampshire RG21 6XS.

Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

Palgrave Macmillan is the global academic imprint of the above companies and has companies and representatives throughout the world.

Palgrave® and Macmillan® are registered trademarks in the United States, the United Kingdom, Europe and other countries.

ISBN: 978-1-403-99937-5 hardback

This book is printed on paper suitable for recycling and made from fully managed and sustained forest sources. Logging, pulping and manufacturing processes are expected to conform to the environmental regulations of the country of origin.

A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

10 9 8 7 6 5 4 3 2 1 19 18 17 16 15 14 13 12 11 10

Printed and bound in Great Britain by CPI Antony Rowe, Chippenham and Eastbourne

Great Thinkers in Economics Series

Series Editor: A.P. Thirlwall is Professor of Applied Economics, University of Kent, UK.

Great Thinkers in Economics is designed to illuminate the economics of some of the great historical and contemporary economists by exploring the interactions between their lives and work, and the events surrounding them. The books are brief and written in a style that makes them not only of interest to professional economists, but also intelligible for students of economics and the interested lay person.

Titles include:

Julio López G. and Michaël Assous MICHAL KALECKI

Alessandro Roncaglia PIERO SRAFFA

William J. Barber GUNNAR MYRDAL

Paul Davidson JOHN MAYNARD KEYNES

Peter D. Groenewegen ALFRED MARSHALL

Michael Szenberg and Lall Ramrattan FRANCO MODIGLIANI

Gavin Kennedy ADAM SMITH

John E. King NICHOLAS KALDOR

Gordon Fletcher DENNIS ROBERTSON

Geoffrey Harcourt and Prue Kerr JOAN ROBINSON

Forthcoming titles in the series include:

Esben Sloth Anderson JOSEPH A. SCHUMPETER

Michael A. Lebowitz KARL MARX

Gerhard Michael Ambrosi ARTHUR C. PIGOU

J.R. Stanfield JOHN KENNETH GALBRAITH

Preface

This is a book about Michal Kalecki's economic theory of the capitalist economy. It purports to be a thorough guided tour through Kalecki's published works.¹

Kalecki is a very important, and also a very peculiar, figure among twentieth-century economists. His ideas had their moment of glory and wide international recognition during the period when Keynesianism pre-dominated in the economics landscape. The coincidence is unsurprising: Joan Robinson and Austin Robinson, two of Keynes's closest collaborators, had recognized the priority of Kalecki in having put forward many of the basic concepts contained in the principle of effective demand. Later on, Kalecki's economics went out of fashion, simultaneously with, but at a faster rate than, Keynesianism loosing its central place in economic thinking and policymaking. Today, when the world economic crisis forces authorities and pundits to acknowledge the importance of Keynes's legacy, very few call for a reassessment of Kalecki's economics. The main objective of this book is to contribute to such a reassessment, and in this context to arouse the interest of readers in knowing more about, and hopefully reading directly from, this extraordinary Polish and socialist economist. In this Preface, we intend to give a glimpse of what they can find in this book.

When Kalecki arrived to England in 1936, a few months after the publication of Keynes's masterwork, *The General Theory of Employment, Interest and Money*, he was a complete unknown to British economists. However, without any university degree, and having spent less than five years, working as an academic economist, he had developed a brilliant career in his native Poland, both in theoretical and in applied economics. Among other things, he had produced the first national accounts estimates for his country. Besides, and this is what has given him most of his reputation in economics, in different pieces written in the first half of the 1930s, he had anticipated many aspects of the principle of effective demand, which Keynes was to put forward some years later.

Kalecki however gave to this principle a distinctive flavour, much closer to the Marxian than to the Marshallian tradition. Embedding it in the framework of business-cycle analysis, he had produced the first mathematical model of the cycle within this framework; a model

which at the time gave him credit among such renowned mathematical economists as Ragnar Frisch and Jan Tinbergen. Also, he had linked the principle of effective demand with a theory of how profits come into being, giving birth to the sentence encapsulating his theory, "when workers spend what they earn capitalists earn what they spend". He had also shown that profits, and with them demand, can be augmented when a country is able to gain a trade surplus, and when the government engages in deficit spending. He applied this latter idea to a study of Germany in the early 1930s, in a short and brilliant article which was surely the first one where the Nazi economy was analysed using the principle of effective demand.

Finally, in a comprehensive and rigorous article, he had shown how the real and the monetary sectors interact in an economy where the classical assumptions rule. This piece came almost as an aside to his main subject of interest, and Kalecki never referred to it and never republished it during his lifetime. But here Kalecki put forward, for the first time, what later came to be known as the "Keynes effect", and this is probably the first publication where a complete and precise exposition of the working and the logic of Say's Law was made. Had Keynes read Kalecki's paper, he probably would not have written "Prof. Pigou's theory of unemployment ... is the only attempt with which I am acquainted to write down the classical theory of unemployment precisely" (Keynes 1964: 279). But then, Keynes did not read Polish!

This was Kalecki's background when he came to England. At the time, the "Keynesian revolution" was raging, and in such an intellectually fertile milieu Kalecki was able to proceed with his academic career, first at Cambridge University and later at the Institute of Statistics at Oxford University.

In this stage of his professional life, Kalecki completed his theory of the capitalist economy with a theory of price formation and of income distribution. He combined the latter with his theory of profits, arriving at a formulation of the principle of effective demand where the latter has, to use the modern parlance, rigorous microeconomic foundations. However, these foundations were radically different from the conventional ones, because Kalecki recognized that firms have to make their living and to take decisions in an environment where uncertainty is pervasive, and thus agents cannot optimize a known function under definite restrictions. And Kalecki also showed that, in taking their pricing decisions and in setting what he called their "degree of monopoly", firms also determine income distribution; and thus they also affect the macroeconomy.

World War II soon came to occupy a large part of Kalecki's scholarly efforts, and he wrote on several aspects of war finance, having as his main concern how to guarantee that the burden of the war effort be borne equitably, ensuring an egalitarian distribution of the available consumer goods. But he also found time to further develop his theory of the capitalist economy, and he was able to give a more complete and realistic foundation to his theory of the determinants of investment decisions, crucial for his theory of the business cycle. In this context, he brought into being his "principle of increasing risk", where he emphasized the dual role of profits in the determination of investment, both as a source of finance and as an indicator of profitability. Apart from that, he participated in one of the most original and insightful reflections on economic policies to overcome massive unemployment in a developed capitalist economy. The book issued on the subject, The Economics of Full Employment, included as its central piece "Three Ways to Full Employment", which was to become one of Kalecki's most renowned papers. In this paper Kalecki showed that if the government had the will, it could with appropriate policies bring about full employment, relying mostly on public expenditure and income redistribution in favour of the poor. At about the same time, however, Kalecki warned that important political changes would occur under full employment, and that these changes, or the fear they arouse among the dominant classes, would give birth to obstacles which would prevent the government from carrying out its full employment measures in full strength. These were the Political Aspects of Full Employment, the title he gave to one of his best-known and most-quoted papers, where he put forward his theory of the political business cycle; another one of his pioneering ideas.

Kalecki spent the next stage of his professional life, between 1947 and 1954, working at the United Nations in New York; and most of what he wrote during this period is hidden in various collective documents of that organization. McCarthyism was in full rage during his stay in the US, which limited his professional contacts, as well as his influence, on economic thinking in that country. Anyway, while there, Kalecki could complete his *Theory of Economic Dynamics*, his *magnum opus* summarizing his overall theory of the capitalist economy. Also, he could find time to reflect on the economics of underdeveloped nations. Though he wrote only a few papers on the subject, his approach and ideas showed a profound perception of the domestic institutional and structural obstacles facing economic growth in this type of country; a perception which was surely aided by his Polish origin and experience. His work

at the United Nations brought with it invitations to visit as consultant Latin America and India; and these visits left a lasting imprint in those parts of the world. This is why Indian and Latin American Structuralist economic thinking had, and still have, a very distinctive Kaleckian flavour.

Kalecki returned to Poland in 1955, remaining there until his untimely death in 1970. Poland was a relatively liberal communist country in the mid-1950s, and at the moment of his arrival Kalecki was given a position of certain responsibility in economic planning. But the political situation deteriorated, and soon he lost his capacity to have any influence on the economic strategy and economic policy decisions. He therefore dedicated himself entirely to the academic interests, and devoted most of his effort to reflect on the economic growth of the socialist economy. His reflections resulted in another one of his masterful works, Introduction to the Theory of Growth of the Socialist Economy. Moreover, his enormous intellectual appeal brought him close to an important number of Polish economists, and that gathering soon gave life to a very lively and idiosyncratic Polish School of economics. As any attendant to the seminars that Kalecki conducted at that time at the Central School of Planning and Statistics will surely recollect - and one of the present authors (JL) attended those seminars - the liveliness of the discussions there had nothing to do with the dullness of economic debate in most of the other communist countries. Sadly, that School of thought was attacked and dismantled by the authorities during the political repression Poland suffered in 1968; and two years later, on April 17, 1970, Kalecki died.

The above is a brief summary of the life and work of the man about whose economic ideas we are writing this book. We do not make apologies about our prejudices and sympathy. We are not writing a book about a person chosen at random, but about the ideas of the economist from whom we have learned most of our economics, and who has had the greatest influence in our professional lifes. And one of us – JL – actually had the enormous fortune to study with him in the late 1960s. Our enthusiasm for Kalecki's economics is the most important message we want to convey to our readers.

There are several books on Kalecki's economics which we have consulted extensively in the process of writing this book. Without being exhaustive, we want to mention Bhaduri (1986), Feiwell (1975), Kriesler (1987) and Sawyer (1985). Of course, we would not have been able to write this book without the masterful edition of the *Collected Works of Michal Kalecki*, edited by Jerzy Osiatinsky. We are also thankful to Tony

Thilrwall, the editor of this series, who read the entire manuscript and made important observations, which we have tried to incorporate in this final version.

Julio López would also like to express his gratitude to colleagues and friends with whom he has been discussing Kalecki's economics for a long time, especially Martín Puchet, Tracy Mott, Emilio Caballero, Jorge Ibarra, Amit Bhaduri, Malcolm Sawyer, Philip Arestis, Marc Lavoie, Alberto Moritz Cruz, Armando Sanchez, Arturo Huerta, Juan Carlos Moreno-Brid, Jerry Courvisanos, Rune Skarstein, Gerardo Fujii, Guadalupe Mántey, Fernando Cardim de Carvalho, Jan Toporowski, Jan Kregel, Ignacio Perrotini, Rogelio Huerta, Eloisa Andjel and Robert Blecker. But most of all, he would like to thank his teachers and friends Ignacy Sachs, Kazimierz Laski and Adam Szeworski, close collaborators of Kalecki in Poland in the 1950s and 1960s, who taught him most of his Kaleckian economics while I studied in Poland in the late 1960s.

I am indebted to Professor Alain Béraud for supervising the dissertation from which this book is partially derived. Professor Rodolphe Dos Santos Ferreira – who served as an examiner and as a second adviser provided crucial suggestions as the dissertation neared completion. Several scholars – Richard Arena, Carlo Benetti , Jérôme de Boyer des Roches, Gilbert Faccarello, Heinz Kurz, Catherine Martin and Antoine Rebeyrol have distinguished themselves as friends and colleagues over the entire course of the project. Finally, I wish to thank my companion, Marjolaine Saraf, who showed unusual understanding and patience as I "disappeared" for many evenings.

Contents

Preface		V
1	Michal Kalecki's Life and Work	1
2	Kalecki's Theory of Profits and Output	23
3	Genesis and Originality of Kalecki's Theory	42
4	The Theory of Prices and Income Distribution	67
5	Kalecki's Long-Run Theory of Effective Demand: The Trend and Business Cycles	91
6	Kalecki's Macroeconomics of Public Finance and of Monetary Policy	129
7	Kalecki's Open Economy Macroeconomics	152
8	Michal Kalecki: A Pioneer of Development Economics	174
9	Kalecki: The Socialist Economist	192
10	Michal Kalecki's Intellectual Legacy	214
		22
Notes		226
Bibliography		245
Author Index		255
Subject Index		257

1

Michal Kalecki's Life and Work

Initial steps

In 1933 Michael Kalecki, a young self-taught economist, published in Poland a small book: *An Essay on the Theory of the Business Cycle*. In this book he proposed his version of the theory of effective demand; a theory which was to initiate, albeit in John Maynard Keynes's version, a new phase in the history of economic ideas and policymaking.

When he published his book Kalecki was in his early thirties (he was born in June 1899). He came from an assimilated Polish–Jewish family, who probably had been relatively well-off. However, his father had lost the small cotton-mill he owned and had to accept a job as a bookkeeper in his brother's company. Kalecki had first begun mathematical studies at the Warsaw University, and then started a university degree in engineering at the Gdansk University Engineering College. However, he discontinued studies shortly before graduation because of the difficult economic conditions of his family.

Kalecki had had no formal economic studies, and in his youth he had been rather attracted by engineering and mathematics. But his socialist political inclination had led him to study Marx's *Capital*, as well as the Marxian economic literature, which was rich and lively in those days preceding the advent of Stalinism.² Poland was at the time a backward agricultural country on the periphery of Europe and of capitalism; whose per capita income may have been about one-third of the average for industrial Europe. However, we must not forget that, as most countries in a similar situation it had a sophisticated *intelligentsia* which excelled in many areas.

In any case, Kalecki further developed his practical knowledge of economics working for a credit rating agency, and this probably led him to begin more systematic studies of economics. In the late 1920s, he entered into regular relationship with two Polish economic journals; writing many reports on important concerns, on economic conditions in particular markets, and on international economic relations. At the end of 1929, he got a job at the Institute for the Study of Business Cycles and Prices,³ and he could thereafter devote himself entirely to work as an economist. It was at the Institute for the Study of Business Cycles and Prices where he published his *Essay* booklet.

However, Kalecki never completely discarded his interest for engineering, and in the early 1930s he published papers on the subject (reproduced in Kalecki 1997, part 4). Also, he would never abandon his attraction for mathematics, and would later publish papers on probability theory and on pure mathematics.⁴ Anyway, in spite of his attraction to, and his good training in, mathematics, he was very careful as to the use of mathematics in economics. Here are two anecdotes told by two close collaborators of Kalecki:

At a certain period I...had great optimism with regards to the possibilities of mathematics. Kalecki warned me of that, and he also warned me of the computer: he suggested that both were ideally suited as a scientific cloak to cover the lack of economic substance. (Steindl 1990b: 246)

And:

Having written a rather formalized paper for **Ekonomista**, the main Polish journal of economics... I asked the Editor to submit the paper to Kalecki... One day I had a phone call... from Kalecki... who told me 'you should know that you must never use mathematics when you can say the same thing in a simpler way, in common language'. (Sachs 2007: 184)

During his period at the Institute Kalecki also entered into collaboration with, and contributed several papers to, the Socialist Review (*Przeglad Socjalistyczny*), under the pseudonym of Henryk Braun. In this Review, Kalecki published some papers where he took usually as a point of departure the peculiarities and impact of the world economic crisis and, interestingly, already in that period his short-run analysis was embedded within the framework of the course of business cycle. Besides putting forward his basic ideas regarding the cycle, he discussed above all the following issues. First, whether falling wages caused by

the slump could contribute to an economic revival. Second, what would be the consequences on the world crisis of monetary and fiscal policy. Finally, whether a concerted expansionary policy carried out by the main developed countries, which he called the "'capitalist' overcoming of the crisis", could be implemented and thus would put a halt to the world crisis. Below are relevant quotes showing his opinions in the very early 1930s on each one of these issues.

On the impact of falling wages Kalecki said,

during a crisis - such as we are now experiencing - reduction of wages causes a reduction of price, but the interval between these events does not permit workers to benefit immediately, while further reductions of wages eliminate altogether the possibility of their being able to do so. As a result, the standard of living of the working class and its share in the social income fall, but at the same time the increased share of the capitalists in the social income flows more into unsold stocks. This in turn further shrinks output and intensifies the crisis. (Kalecki 1932a [1990]: 43-44)

On monetary policy:

Inflation^[5] is the single "surgery-type" means of mitigating the crisis system, however, this instrument is of a merely theoretical significance now, since its use the concrete conditions of contemporary capitalism encounter insurmountable difficulties. For ... credit inflation, i.e. a more liberal supply of credit by the central bank, may be of minor significance only when the business crisis is deep as at present. Entrepreneurs will not, as a rule invest the newly received credits because easier terms of the credit will not induce any investor to build a factory that will have no chance of finding a market for its products. New credits will be used rather to pay back the old ones and the surprised creditors will bring their repaid credits back to banks thus happily closing the circle.

What indeed could change the situation is fiscal inflation on a large scale. (Kalecki 1932c [1996]: 175)

On the impact of increased government expenditure:

What processes take place with the financing of the public works through monetary inflation? Let us assume that the government is constructing public works, financing them by raising loans from the bank of issue. Prices, output, and hence profits increase with the overall growth in demand. The increase in profits will be equivalent to the accumulation of capital tied up in the completed public works. In what form do the profits reach the hands of the industrialists? They will reach them either in the form of an increased number of banknotes in their possession or in the form of repayments of their obligations to the bank of issue. This process is reflected in the latter's balance sheet in an increase in the portfolio of treasury bills, an increase of money in circulation, and a decrease in the portfolio of private bills. Yet another shift in the balance sheet takes place. Since the increase in output is accompanied by increased imports of foreign raw materials and semifinished products, part of the money put into circulation will be exchanged for gold or foreign currency to pay for this increase.

In turn, the increased profits of industrialists will encourage the latter to undertake investments; private investments will begin to grow around public investments and the business upswing will be stimulated. (Kalecki 1932b [1990]: 61–62)

On the capitalist overcoming of the crisis:

we should mention [the] ... possibility [of] ... a certain form of inflation consisting of individual states, or groups of states, starting up major public-investment schemes, such as construction of canals or roads, and financing them with government loans floated on the financial market, or with special government credits drawn on their banks of issue. This kind of operation could temporarily increase employment, ... [but] ... if it were to be carried out on a large scale, it would have to be co-ordinated by an international agreement of the individual capitalist governments, which, given today's quarrelling imperialisms is almost out of the question. (Kalecki 1932d [1990]: 53)

All in all, on reading Kalecki's early papers, one (or at least the present authors) cannot but conclude that early in the development of his thought, he had achieved an overall vision on the functioning and the dynamics of the capitalist economy he would preserve until his mature age. Of course, in each and every theoretical issue he would refine and make more precise his viewpoint. But his global outlook would only change marginally.

Let us now resume our narrative of Kalecki's career. At the Institute, Kalecki showed the impressive intellectual productivity that

characterized his professional life. We already mentioned his booklet on the business cycle and quoted some of his short papers. Besides that, he produced (together with Ludwik Landau) the first estimates of investment, consumption and social income in Poland; and a study on the fluctuation of prices, costs and industrial production in Poland. To this we should add many additional articles, as well as academic and more popular papers, where he further discussed his theory of the business cycle and his general economic ideas. In this context, there are two academic papers which, in our opinion, are of particular importance. One is a theoretical paper, "Three Systems", (1934a [1990]) where Kalecki contrasted his own view with those of the ruling economic mainstream, showing an in-depth knowledge of the latter. 6 The other one is an applied paper: "Stimulating the Business Upswing in Nazi Germany" ((1935a) [1996]), which is probably the first study where the Nazi experiment was analysed using the principle of effective demand. We will discuss these two papers later on in this book.

In 1933, shortly after the publication of his Essay, Kalecki attended the meeting of the Econometric Society in Leyden, where he presented a paper exposing the main ideas from his Essay (Kalecki 1935b [1990]). The paper dealt not only with the theory of the cycle, but also with the theory of profits and (though not fully elaborated at that time) the theory of effective demand and output. Interestingly, the parts pertaining to the theory of profits and of effective demand and output, where he anticipated (in our view) important results which Keynes would reach later in the General Theory, were completely neglected by attendants to the conference. In contrast, the business-cycle model attracted favourable comments from Ragnar Frisch and Jan Tinbergen, who were at that time leading figures in the field of economics.⁷

Surely thanks to his participation in the Leyden conference, in 1935 Kalecki received a Rockefeller scholarship to study abroad, and in January of 1936 he left for Sweden. We do not know for sure why he chose Sweden, but we conjecture that it was because of his interest in Swedish economic thinking, and probably also due to his poor command of English (although he mastered German). However, he stayed in Sweden only a couple of months, and apparently did not make many professional contacts.⁸ Here he read the General Theory, which had been published a couple of months earlier. Joan Robinson recollects the following story told to her by Kalecki: "In Stockholm someone gave him Keynes' book. He began to read it - it was the book that he intended to write. He thought that perhaps further on there would be something different. No, all the way it was his book. He said: 'I confess, I was ill. Three days I lay in bed. Then I thought – Keynes is more known than I am. These ideas will get across much quicker with him and then we can get on to the interesting question, which is their application. Then I got up'" (Robinson 1977: 8–9). Anyway, Kalecki immediately published (in the Polish leading economic journal *Ekonomista*) an incisive review of that book, contrasting Keynes's with his own views. He also decided to go to England.

Cambridge and Oxford

In March 1936, Kalecki arrived in England. Here, he made efforts to contact Keynes's closes collaborators and was able to meet Joan Robinson. Let us hear the story from Robinson herself: "I received a letter, evidently from a foreigner visiting England, who said that he was interested in my article as it was close to some work of his own. I thought this very strange. Who could claim to be doing work that was close to this - the first fruits of the Keynesian revolution? When Michal Kalecki turned up, I was still more astonished. He cared little for party manners or small talk and plunged directly into the subject. He was perfectly familiar with our brand new ideas and he had invented for himself some of Keynes' fanciful concepts, such as the device of burying bank notes in bottles and setting off a boom in mining them. As we talked, I felt like a character in a Pirandello play, I could not tell whether it was I who was speaking or he. But he could challenge a weak point in Keynes' formulation and quickly subdued my feeble attempt to defend it. He told me that he had taken a year's leave from the institute where he was working in Warsaw to write the General Theory" (Robinson 1977: 8).

Kalecki's name and ideas were not unknown only to Robinson. In fact, though he had published sections of his *Essay* in English and in French, he was a complete newcomer in British academic circles. He remained in England thanks to an extension of his Rockefeller scholarship, and published new papers in British economic journals. He also travelled to Norway (where he renewed contact with Ragnar Frisch); and to France, where he studied the economic policy of Leon Blum's government. In 1938 he received a scholarship from the University of Cambridge and attended Pero Sraffa's seminar held at Cambridge. In autumn, in the same year, he embarked on the supervision, with Austin Robinson, Richard Kahn, Piero Sraffa and Keynes as chairman of the Cambridge Research Scheme of the National Institute of Economic and Social Research into Prime Costs, Proceeds and Output. We may conjecture that Kalecki's objectives were twofold: First, to collect and analyse evidence relevant

to his income distribution theory purporting to explain the stability of the share of wages in national income, and second, to devise a new price theory taking into account both monopolistic and oligopolistic factors.

Kalecki was surely aware that several recently published works, including Colin Clark's (1937) National Income and Outlay and Simon Kuznets's (1937) National Income and Capital Formation 1919-1935. showed stability of the wage share in the long run. This result puzzled him, because an implication of his initial work was that the wage share should vary counter-cyclically. This would occur due to his assumption of "free" competition: each firm faced with a perfectly elastic demand curve, sets its output at that level where its marginal prime cost equals its selling price. Equilibrium of the firm would be possible only if the firm had a rising marginal cost curve. Kalecki believed this to be the case because there would be diminishing returns when additional labour was used with the given capital equipment. If the marginal prime cost was rising with output (at any rate, if it was rising with a constant or increasing slope, which was taken for granted) the ratio of the wage-bill to sales proceeds would fall (and the ratio of profits to proceeds would rise) with every increase in output.

We will have time later in this book to discuss in detail Kalecki's theory of prices and distribution; but here some brief comments may be useful. To explain the stability of the share of wages in national income, Kalecki made three assumptions: i) The short-period marginal cost curve does not differ considerably in the majority of firms from the average cost curve of manual labour and raw materials up to a certain point corresponding to "practical capacity"; ii) the output of the firms is usually below this point when firms act in a context of imperfect competition; iii) firms set a mark-up on their marginal cost.

Kalecki's assumption i) meant a radical departure from the extant cost and price theory. But Kalecki thought that it was much closer to the actual situation than the assumption whereby unit prime costs rise when output expands. 11 He rationalized it with the argument that increases in output are typically achieved not by increasing workers per machine or bringing inferior machines into use, but by increasing working hours per week.¹² Assumption ii) needed little defending in the depression of the 1930s. To give reason for the point, Kalecki (1939a [1990]: 28n) drew on the arguments of Harrod (1934) and Kaldor (1934) that surplus capacity is a normal consequence of imperfect competition. To substantiate assumption iii), Kalecki turned also to the doctrine of imperfect competition. Referring to Lerner (1934), he explained that