

PUBLIC FINANCE

Public Revenue Without Taxation

The Economic Study Association

London

Public Revenue Without Taxation

March 2023

ISBN: 978-1-9163716-6-8

© Economic Study Association, 2023

All rights reserved.

Public Finance

Studies in Economics by

Ronald Burgess



ESA publications

Ronald Burgess practised as an economist for over fifty years. His aim was to offer advice to government based upon study, research, discussion, and public speaking.

The Economic Study Association (ESA) was formed in 1965 for the purposes of study and research and the formulation of advice to government. It produced four early publications:

Enquiry into Prices and Incomes, March 1968.

Local Government Finance, January 1970.

Fanfare to Action – Income Distribution as a Cause of Inflation, January 1973. Supported by the Wincott Foundation of the IEA.

Social Justice or Unbridled Government, May 1976.

Two further publications were produced by Ronald Burgess with the support of the ESA and other organisations:

Full Employment and Public Spending, August 1977. Published by arrangement with Aims for Freedom and Enterprise, an employers' organisation which later became known as Aims of Industry. (ISBN: 0-72810-073-8)

The Chance to Change, September 1977. Produced jointly with the Economic and Social Science Research Association (ESSRA), a predecessor of the Henry George Foundation of Great Britain.

After a further period of some fifteen years of study and research, members of the ESA assisted Ronald Burgess with the preparation of *Public Revenue Without Taxation*, which was published in 1993. (ISBN: 0-85683-135-2)

The editors have also published several volumes of other work by Ronald Burgess from 1962 through to 1994, drawing upon original lecture notes, manuscripts and recordings. These are listed below.

Economics Now, 1979-1980. Ten seminars setting out an approach to macroeconomics with particular reference to government policy. (ISBN: 978-1-9163716-1-3 March 2020)

Ten Public Talks, 1980-1983. A series of public lectures on topical issues such as monetarism, inflation, unemployment and taxation. (ISBN: 978-1-9163716-2-0 March 2020)

Spatial Economics (ten lectures) and *Normative Economics* (six lectures), 1983-1984. Original work on the relationship between the spatial aspects of macroeconomics and the role of the polity. (ISBN: 978-1-9163716-3-7 March 2020)

Further Work, 1971-1994. A collection of essays and public talks on such topics as full employment and public spending, the burden of taxation, privatisation and local government finance. (ISBN: 978-1-9163716-4-4 March 2020)

The Difficulties of the Railways. An introduction to the early work of Ronald Burgess on public finance and an alternative approach to the financial difficulties of the railways. Based on a lecture given at the Royal Society of Arts in London in July 1962, in anticipation of the Transport Act 1962 and the Beeching Report of March 1963. (ISBN: 978-1-9163716-5-1 July 2022)

Public Revenue Without Taxation. A radical approach to the reform of public finance based on sound economic principles. This revised edition has been prepared to mark the 30th anniversary of its first publication in 1993. The editors are grateful to Shephard-Walwyn (Publishers) Ltd for their kind permission to reproduce the text and the accompanying diagrams in the present volume. (ISBN: 978-1-9163716-6-8 March 2023)

The general reader may find it helpful to become familiar with the earlier publications, and where possible to listen to the recordings, as a preparation for the study of *Public Revenue Without Taxation*.

Contents

<i>Preface</i>	viii
Acknowledgements	xi
1 Introduction	1
2 The Failure of Economics	7
3 The General Theory of Employment	19
4 Tax Analysis	39
5 Tax and Inflation	52
6 Tax and Unemployment	62
7 The Physiocratic Tradition	76
8 Neo-Classical Arguments	84
9 Public Revenue	100
10 Towards Reform	111
<i>Appendix</i>	117
<i>Bibliography</i>	121
<i>Index</i>	124

Preface

Ronald Burgess was first taught economics whilst recovering from wartime injuries in a military hospital at Perugia. His tutors were former academic staff of the economics department of Cambridge University, where the tradition of Marshall, Pigou and Keynes was at that time being carried forward by Dennis Robertson.

After the end of the war Burgess joined the School of Economic Science in London and became familiar with the work of Henry George, whose book *Progress and Poverty* had enjoyed a wide and popular following since its first publication in 1879.

In 1967 he moved to Oxford and began to work more closely with Colin Clark. The Economic Study Association (ESA) was set up in London to support his work, which at that time had consisted mainly of research, study, teaching and public speaking. With this support, and practical help from Colin Clark, several publications were produced by the ESA from 1968 through to 1977.

Colin Clark had introduced to the UK both national accounting and the main concepts of location theory, and the opportunity arose to bring these two areas of interest together for further study.

In 1969, after Colin Clark returned to Australia, Burgess moved to the newly founded University of York. There, in return for light teaching duties, he was able to work with Professor Jack Wiseman, and could make use of economic modelling and other resources.

At York, Jack Wiseman and Alan Peacock had jointly set up the Institute for Social and Economic Research. This followed on from their joint publication of *The Growth of Public Expenditure in the United Kingdom*. Jack Wiseman also collaborated for many years with James Buchanan, who had assisted Musgrave and Peacock in the preparation of their *Classics in the Theory of Public Finance*.

Burgess was able to draw upon a continuing close connection with the Institute of Economic Affairs in London, where Clark and Wiseman were members of the advisory council. Although grateful for this support, he maintained a strict academic independence.

Public Revenue Without Taxation was first published in 1993 as the culmination of a long career of research, study and teaching. It draws together much of Burgess' earlier work, and sets it within a theoretical framework developed from Keynes' *General Theory of Employment, Interest and Money* and the Cambridge tradition. The central aim of this work, which Burgess sees as the responsibility of economists, is nothing less than 'the possibility of civilisation'.

The first two chapters set the scene in terms of supply-side and demand-side economic policies, and their common assumption of the use of taxation as the only possible source of public revenue.

Developing the approach of Keynes' *General Theory*, Burgess then shows that the effects of taxation need to be taken fully into account, and the economic upper limit to taxation – identified by the Physiocrats, and confirmed empirically by Colin Clark – needs to be recognised. The precise interaction of taxation, inflation and the rate of unemployment is then examined in further detail.

A survey of the Physiocratic tradition leads on to a discussion of the 'neo-classical' approach of Marshall and others, in which the concepts of private and public value at a location are highlighted.

From this arises the possibility of a clear and definite concept of public revenue and the progressive reform of public finance by the removal of all forms of arbitrary taxation over a period of time.

This revised and extended edition of *Public Revenue Without Taxation* reproduces the text of the 1993 version. The references at the end of each chapter have been amended with minor additions and corrections and the original diagrams have been reproduced.

A short Appendix has been added to clarify the theoretical basis of the work and, in particular, the interpretation of Chapters 9 and 10. An expanded list of references has also been added in a new bibliography, whilst the index has been reduced and simplified.

The editors hope that this revised edition will assist the general reader in catching sight of 'the possibility of civilisation'.

Acknowledgements

The author wishes to acknowledge his indebtedness to the late Colin Clark who, as Director of the Agricultural Economics Research Institute at the University of Oxford, personally provided the necessary impetus for this line of research. The author also wishes to thank all members of the Economic Study Association whose invaluable support has brought this work to publication.

1

Introduction

Through this century of passing economic fashion the dominating idea has swung from ‘Supply creates its own Demand’ to the opposite ‘Demand creates its own Supply’ and then back again to ‘Supply creates its own Demand’. The process continues; there are signs of the pendulum beginning yet another journey.

This alternation of the dominant idea has arisen from a division between demand-side and supply-side theory, each enshrined in its own school of thought, and each claiming to be complete in itself. These schools describe one-sided views which distort what is in reality a coherent whole.

Half a loaf is said to be better than no bread, but this division of economic theory gives to each faction only, as it were, half a pair of trousers. Such an incomplete conceptual garment is worse than nothing. In the sphere of government, policy prescriptions derived from half a theory mislead both politicians and their electors.

Throughout the world governments have been misled into pursuing policies which have led from a slump to an inflation and on to a combination of the two – ‘slumpflation’. The toast given by Lord Keynes a few months before his death in 1946 to ‘the Royal Economic Society, economics and economists who are the trustees, not of civilisation but of the possibility of civilisation’ offers little cheer to governments and their electors today.¹

The so-called Keynesian school of economic thought is more accurately described as the demand-side school, for it concentrates on aggregate demand and thereby ignores the spirit and much of the economics of Keynes. Its policy prescriptions seek, largely by means of a high volume of public spending, to hold aggregate

demand at a level sufficient to keep an economy operating at, or close to, ‘full employment’.

The demand-side concept of ‘full employment’, as well as the means of sustaining it, owes more to Beveridge than to Keynes. In *Full Employment in a Free Society*, Beveridge wrote: ‘The first condition of full employment is that the total outlay should always be high enough to set up a demand for the products of industry which cannot be satisfied without using the whole manpower of the country; only so can the number of vacant jobs be always as high, or higher, than the number looking for jobs’.²

For Keynes, the term ‘full employment’ did not relate to any particular statistical rate of unemployment, but was an alternative term for what he considered to be ‘a condition which might be appropriately designated as one of true inflation’.³

Again, although Keynes did argue against the then fashionable interpretation of Say’s law that supply always calls forth its own demand, he did not argue the opposite – that demand will always call forth its own supply. It is this latter non-Keynes view which appears to be the assumption underlying the demand-side school’s policy prescriptions.

The high level of public spending necessitated by the pursuit of ‘full employment’, and the large tax take topped up by an annual public borrowing requirement needed to support this high level of spending, proved to be a sure recipe for accelerating inflation.

In *The Economic Journal* of December 1945 Colin Clark first argued his case, on the basis of pre-World War II evidence from many countries, that inflation becomes inevitable when the total of general government tax revenue plus the borrowing requirement exceeds 25 per cent of net national product at market prices.⁴

Lord Keynes is on record as having agreed with Colin Clark and subsequent experience in most countries of the world would seem to support their view. The level of public spending required by demand-side ‘full employment’ budgets has resulted in Clark’s upper limit being substantially exceeded.⁵

The demand-side school's proposed solution to the inflationary consequences of their full employment policies is the imposition of central planning to include extensive and detailed public controls over such private matters as incomes, prices, external trade and capital movements.

The maldistribution of resources and the loss of personal liberty necessitated by this remedy has so far proved unacceptable to the free electorates of the western world. This being so, and with inflation rampant, the demand-side school lost its domination.

Then, with the failing fortunes of the demand-side school, the Chicago, monetarist or supply-side school of economic thought rose to become the established orthodoxy. Their first objective is the eradication of inflation. Supply-side policy prescriptions have included squeezing inflation out of the system by controlling the money supply, reducing the size of the public sector, whether by privatisation or by other means, and cutting public expenditure together with the tax take. Coinciding with the implementation of these policies the rate of inflation has tended to fall world-wide but the price appears to be a return to a high level of unemployment.

Professor Harry Johnson, an early adherent of the Chicago school, warned of this possibility in December 1970 when he said: '...the Keynesians are right in their view that inflation is a far less serious problem than mass unemployment. Either we will vanquish inflation at relatively little cost, or we will get used to it'.⁶

Further, where active steps have been taken to reduce the size of the public sector by privatisation, in most cases Lord Stockton's castigation of Mrs. Thatcher's administration for 'selling off the family silver' seems apposite. No economic principle is apparent. When the government estimate there to be a short-term financial gain by hiving off from the public sector a particular firm or industry, then that firm or industry is sold off to the private sector.

There is little or no evidence to suggest that supply-side policies have been effective in reducing either public spending or the tax take. Some items of public spending may be cut but spending on

other items rises. Similarly while some taxes may be cut others are increased, often by more than enough to compensate in terms of total tax revenue. In the United Kingdom, new supply-side policies are presumed to have been implemented from 1979; in that year tax revenue appropriated 38.6 per cent of net national product at market prices. A decade later tax revenue was appropriating about 40 per cent of net national product at market prices.

While the supply-side school has contributed much to the advancement of economic science, its public appeal relies on little more than a reaction to the profligate proposals of the demand-side school. It offers more freedom, less government and less taxation but also, of necessity, less public spending. The first three enjoy public support, but not the last, and supply-side policies can only offer a partial remedy, as they do not offer any alternative to the imposition of taxation for the purpose of defraying the necessary public expenditure. Its philosophy is fundamentally flawed.

For example, Nozick argues that taxation is wrong, but he then proceeds to admit to its necessity. He rejects outright the concept of the 'Robin Hood' principle of redistributive taxation. For such purposes, he asserts, taxation cannot be justified. Against this, he recognises that government has a duty to protect private property, defend the state and uphold law and order and for these purposes concludes the imposition of taxation to be justified.⁷

This argument could be applied equally to justify a mobster's demand for protection money. If taxation is wrong then it cannot be justified by necessity. 'Necessity', said William Pitt in 1783, 'is the plea for every infringement of human freedom. It is the argument of tyrants; it is the creed of slaves'.

For the people of the industrialised trading economies it is a fact of unfortunate experience that the policy prescriptions of the succession of orthodox established schools of economic thought have offered little more than a trade-off between unemployment and inflation – both with their accompanying social evils. When, on the advice of economists, attempts have been made to reduce

unemployment by increasing public spending, then inflation has become rampant with all its accompanying evils. When effective counter-inflationary policies have been pursued, then the rate of unemployment has risen with all its accompanying evils.

Some economists appear to place the blame on the politicians, but this is an evasion of responsibility on the part of those very economists. In matters of public economic policy politicians and governments regularly seek, and usually act upon, the advice of those claiming to expertise in the sphere of economics. One has to conclude that it is the economists who have failed.⁸

The present dispute between the demand-side and supply-side schools of economic thought is largely irrelevant to the issue of eradicating both inflation and unemployment, and totally irrelevant to the issues of the creation of a just society, or even a 'property owning democracy'. In this work it will be argued that a modern trading economy can provide a setting for a just society, free of home-bred inflation and unemployment; but the first requirement is for government to stop persistently flouting the principle of private property by the imposition of taxation.

Adam Smith railed against public profligacy, as contemporary supply-siders also do, but endorsed the imposition of taxation. In the *Wealth of Nations* he laid down the 'Canons of Taxation', but also accepted that, in the absence of a fund peculiarly belonging to the public authority, the 'necessary expenses of government' must be defrayed 'from the revenue of the people'.⁹

With few exceptions, most later writers on public finance have followed only one of Adam Smith's leads, by limiting their own investigations to what 'necessary' public spending consists of, and the most efficient or acceptable methods of raising the required tax revenue from 'the revenue of the people'.

The supply-side school, like Adam Smith, rails against public profligacy, but considers for certain purposes the imposition of taxation to be justified by necessity. The demand-side school considers taxation to be an essential instrument of both fiscal and

social policy. Contemporary schools of economic thought must cut loose from this traditional approach if the social and economic difficulties facing trading economies are to be remedied.

Economics is required to follow up on Adam Smith's other lead, to which Alfred Marshall contributed with his distinction between the public and private value of freeholds, and to investigate the possibility of a source of revenue that is peculiarly public. Such an investigation was begun prior to Adam Smith by the Physiocrats, and has been continued since by the American Henry George and his followers.

What governments need to know from economics is a source of public revenue that arises from the nature of a trading economy and does not offend against the principle of private property.

This public revenue must be sufficient to cover necessary public expenses after the abolition of all taxation.

When economists can provide this knowledge then, truly, they may be considered as 'trustees... of the possibility of civilisation'.

References

1. R. F. Harrod, *The Life of John Maynard Keynes*, pp.193-194.
2. W. H. Beveridge, *Full Employment in a Free Society*.
3. J. M. Keynes, *The General Theory of Employment, Interest, and Money*, Bk. V, Ch. 21, p.303.
4. Colin Clark, *Public Finance and Changes in the Value of Money*.
5. Colin Clark, *Taxmanship*, p.21.
6. Harry Johnson, *The Keynesian Revolution and the Monetarist Counter Revolution*, p.200.
7. R. Nozick, *Anarchy, State, and Utopia*.
8. Colin Clark, *Taxmanship*, pp.11-12.
9. Adam Smith, *The Wealth of Nations*, Bk. V, Ch. II.

2

The Failure of Economics

Taxation is a primal cause of both inflation and unemployment. As later chapters of this work will show, the development of Keynes' general theory of employment leads to the conclusion that an open trading economy is likely to be most competitive, and therefore most prosperous, only when all taxation is abolished.

Taxation raises the value of the aggregate supply price, Z , for all values of output and employment, N . Thus, in a free market, a prerequisite for efficiency and competition working together to reduce an economy's aggregate supply price to a minimum is the abolition of taxation. Regardless of this conclusion, freely elected governments of contemporary trading economies – acting with the acquiescence of their electorates – persist in raising the major part if not all of their revenues by means of taxation.

The immediate cause of such action by governments and of the acquiescence of their electorates is ignorance of any acceptable alternative method of raising sufficient public revenue. Ignorance of any alternative has led, without any further questioning, to taxation being accepted as the necessary source of public revenue.

As a consequence, economic debate on public revenue has become limited to considerations of appropriate methods of raising that taxation and the amount that might be raised. Any discussion on the possibility of an alternative source of public revenue other than taxation has vanished from orthodox economic literature.

The underlying cause is, however, a failure by economists to perceive the special nature of a developed trading economy, and economists must, as a first step, re-investigate the basic economic processes common to all developed trading economies.

The Primary Division

In any productive process, a process by which the natural world is modified so that the human race may live and live more fully, human labour is a necessary factor. 'No work no product' is a fundamental law of the universe. Individuals may violate this law but collectively the human race cannot. Justice works. When justice is ignored at the individual level then it works on the mass and is often described as injustice.

In addition to human labour, every productive process needs also one or more non-human factors. Some writers on economics lump all non-human factors together and call them 'capital'. Other writers distinguish between the non-human factors in their natural state and unmodified by labour, which they often call 'land', and reserve the term 'capital' for those non-human factors which have been already modified to some extent by labour. When this latter distinction is made then both land and labour are necessary factors of production and for some productive processes they may be, in particular combinations, sufficient.

For certain analytical purposes even finer distinctions may be useful but such distinctions do not alter the basic requirement that in any productive process a human factor plus one or more non-human factors are necessary.

This holds for the most primitive productive process in a self-sufficient household as well as the most technologically advanced process in a highly developed trading economy.

There are, however, fundamental differences in the nature of a non-trading economy and a trading economy.

In a non-trading economy a productive unit, such as a self-sufficient household, produces an output in its entirety solely for the enjoyment and consumption of its own members. What matters to the members is the quantity and quality of the output they have laboured to produce. A bumper harvest will mean a year of good living, whereas a poor harvest may mean death through starvation.

Although such extremes of self-sufficiency may be rare today, there are many examples of communities in which the individual households are the productive units, producing an output primarily for their own enjoyment and consumption and trading at most only what happens to be surplus to their needs. For them the quality and quantity of the output is of major importance and relative prices hardly matter.

On the other hand, in a trading economy an output is produced primarily for sale. In this fundamentally different circumstance what matters to a productive enterprise is not only the quality and quantity of the output but also the per unit market prices of that output. For example, if a bumper harvest leads to depressed market prices, farmers may suffer, while the enhanced prices that follow a poor harvest may work directly to their benefit.

Thus, in a trading economy, the emphasis is upon income rather than on output, and an important factor determining the nominal income of a productive enterprise is market prices.

In a non-trading economy comprising self-sufficient productive units Ricardo's theory of rent is directly applicable. The same capital and labour when applied to the least fertile land in use will produce less output than when it is applied to the most fertile land in use. In Ricardian terms, this difference in output is 'rent', and it arises solely from the difference in fertility of the soil in use at a particular location over that at the margin of cultivation. Given the private ownership of land, the primary division of the output is between rent, the share of the output accruing to the landowners, and wages, the share of the output accruing to those who supplied the labour. The return to capital is a secondary claim on wages.¹

In the case of a trading economy Ricardo's theory of rent is not directly applicable. In general differences in the fertility of the soil are of no matter. Even in the case of farming, while the fertility of the soil may be a factor determining the particular kind of farming undertaken, it is of far less importance than the location relative to customers and suppliers. A farm in a good location, but with poor

fertility, will provide the opportunity for a better living than one with more fertile soil in a bad location.

In a trading economy what matters in the general case is not the fertility of the soil but the advantages, or externalities, available to productive enterprise at a particular site. These advantages cannot give rise to Ricardian rent for, as will be argued, they are produced by a combination of human and non-human factors.

The essence of the Ricardian theory is that rent arises from a non-producible fixed factor. The return to the factors of production in a trading economy is not, as would be the case in a non-trading economy, a share of the output produced but a share of the income received from the sale of that output. There is a primary division of income rather than a primary division of output or wealth.

The return to the human factor of production may be described as a labour income as it accrues to those who supply the necessary labour to the productive trading enterprise. The return to the non-human factors of production may be described as property income because it accrues to those persons or corporate bodies who for the time being enjoy property rights over the non-human factors.

The incomes commonly referred to as rent, interest or profit are sub-divisions of property income.

However, what these factor incomes or product shares represent in real terms will depend upon the relative market prices of the assortment of goods and services purchased out of those nominal incomes. For example, what labour income represents in real terms will depend upon the price of what Professor Pigou called 'wage goods' – the assortment of goods and services purchased out of labour incomes.²

Thus, assuming no change in nominal labour income, the share of the product accruing to those who supply labour will increase when the market price of wage goods falls, and contract when the market price of wage goods rises.

Market prices are of no significance in a non-trading economy but their influence permeates a trading economy.

Property Rights

The division of the net receipts from the sale of output between labour income and property income is the means by which a trading economy, through bargaining and market mechanisms, provides returns to the different factors of production.

This primary division of income arises from the very nature of a trading economy. It follows that, to argue that this division and the mechanisms by which it is achieved are the primal cause of the extremes of wealth and of all the other social diseases that appear endemic in contemporary trading economies, is to argue that these undesirable results also are in the nature of a free market trading economy. The argument accepts implicitly that in the nature of a trading economy 'the poor', in more senses than one, 'will always be with you'.

The logical conclusion of such an argument is that either the free market trading economy must be got rid of, or attempts must be made to mitigate the undesirable results. This conclusion has some apparent validity in certain circumstances.

A free market does allow property rights over the non-human factors of production to be accumulated in perpetuity into single holdings without limit. The same does not apply to the human factor, labour; the human effort any one person can make is strictly limited in both time, and amount. Thus there arises the possibility of a concentration of property rights in the hands of a minority who, in order to produce an output, must become buyers of labour.

The result is a society comprising a comparative few, for ever growing relatively richer and more powerful, alongside many who have nothing to sell but their labour and are relatively poor. Some further part of this majority is rendered poverty-stricken when it is unable to sell its labour.

This sequence of events is commonplace in the contemporary trading economies and is a matter of widespread concern, but so long as the cause remains, the result is unavoidable.

The cause, however, does not lie in the nature of the trading economy. It is rooted in human failure: the failure of communities to conform to the principle of private property. Except by fortunate accident, the primary division of income within a trading economy cannot result in what justice demands so long as the principle of private property is being flouted.

John Stuart Mill in his *Principles of Political Economy* wrote: ‘The laws of property have never yet conformed to the principles on which the justification of private property rests.’³

This criticism continues to apply some 150 years later. The essential element of these principles, he wrote, ‘consists in the recognition, in each person, of a right to the exclusive disposal of what he or she may have produced by their own exertions, or received by gift or fair agreement, without force or fraud, from those who produced it.’⁴

Mill emphasised some of the consequences when members of trading economies fail to conform to this principle by their custom, usage, and law. Most of his remarks ring true today. Yet Mill’s nineteenth century arguments couched in the Ricardian mode may mislead if applied directly to the present circumstances.

Today landowners as a special class of persons are not, as Mill and many of his contemporaries implied they were in their day, the active culprits. Over the years the ownership of a title to land has become widespread, and the majority of landowners are more the passive acceptors of that which, by law, they are entitled to receive and which the law allows them to keep in the most part for their own purposes.

As Mill acknowledged, it is governments who persistently fail in their duty to uphold the principle of private property, and thus, by their failure, allow a few to exploit the economy for personal or corporate gain. Inflation, unemployment and the apparent general lack of justice which corrodes contemporary trading economies flow directly from the repetitive flouting by governments of the principle of private property.

Tax Revenue

In a trading economy both labour income and property income in the first instance accrue naturally as private income.

Unless government has property rights over some or all of the non-human factors of production, the primary division of income does not automatically provide a public revenue for financing the necessary public expenditure. The common first reaction of most governments to a lack of public revenue is to seek relief through the imposition of taxation.

By whatever names taxes are called, and whatever the methods governments may use to raise tax revenue, taxation is in effect an arbitrary levy imposed by force or the threat of force upon those in receipt of a private income. In their effective incidence all taxes are income taxes. By force of statutory law taxation denies to the taxpayer the right to exclusive disposal of that individual's private income. Taxes either directly appropriate nominal private income, or erode real private income through rising prices, or most often both at once. In this way all taxation flouts the principle of private property. To describe taxes as customary duties, insurance, or (as happens in the preamble to the Annual Finance Act of the United Kingdom) as 'gifts', is to use constitutional fiction in an attempt to obscure the nature of the act.

Governments, politicians, and others put forward a wide variety of arguments in an attempt to justify the imposition of taxation. It is said, for example, that progressive taxation offers the means for redistributing income from the rich to the poor. This may suffice to add morality to the medieval romance of Robin Hood but it does not add morality to the actions of twentieth century governments.

Evidence suggests that progressive taxation is not effective and that any redistribution that is achieved by governments flows from the expenditure side of the budget. In most cases taxation does little more than rob Peter to pay Paul what Paul could have better provided for himself had he not also been robbed in the first place.

The various arguments put forward in an attempt to justify taxation may well be accepted by a majority of the electorate, and a majority of the electorate may even appear to favour higher taxes for certain purposes as the statistical wizards of some opinion polls may claim, but none of this changes the nature of the act.

With the imposition of taxation governments fail to conform to the principle of private property. Politicians may pay lip service to the idea of a ‘property-owning democracy’, but then misuse the force of statutory law, and fail to recognise in each person a right that is an essential element for the institution of private property.

Trade is a matter of exchange, and fair exchange requires that each party to the exchange has and respects valid title to whatever is exchanged.

Any flouting of the principle of private property undermines the very foundations of a trading economy. Governments persistently flout this principle by the imposition of taxation.

The Road to a Mixed Economy

When governments become reliant upon tax revenue for financing public expenditure they cease to be subject to the discipline of having to adjust spending to income, a discipline that continues to apply to the private sector.

The reverse discipline of adjusting income, that is tax revenue, to spending decisions has today become the accepted principle of public finance. United Kingdom governments, for example, take their spending decisions during the winter period and then, to raise the necessary moneys, present their budget the following spring.

This now unquestioned principle of public finance, when allied to universal suffrage, creates the political pressures which work towards public profligacy. As the government’s failure to uphold the principle of private property leads to extremes of wealth, this in turn sets up stresses and strains within the community and it appears to politicians that they are faced with a choice. They may

promise to do little or nothing, and suffer electoral consequences, or they may offer some form of mitigating action. Mostly, the freely elected governments of the developed trading economies have opted for mitigating action. At the outset this took the form of limited social and welfare schemes intended to relieve the worst excesses of social deprivation. However, the political pressures generated in these economies by universal suffrage are such that this road has led, step by step and with the best of intentions, to the very expensive welfare state. In today's circumstances the need for some form of state welfare is all too apparent but to meet this need governments know of no alternative other than raising taxes. In other words governments, driven by political pressures and good intentions, attempt in their ignorance to spend their way out of trouble, and to finance this spending by multiplying their tax take.

The United Kingdom provides an example: tax revenue as a share of the net national product at current market prices (NNP) has multiplied five-fold during this last century, and a major part of the increase in taxation has gone to finance the ever-rising cost of establishing and attempting to sustain a welfare state. Yet the very circumstances that create the apparent need for extensive state welfare arise in the first place from the imposition of taxation.

As tax is an arbitrary levy upon a private income it cannot, regardless of any political intentions, take fully into account the individual's ability to pay, and in the long run, an ever-increasing tax take tends in aggregate to squeeze disposable property income rather than disposable labour income.

Again the United Kingdom provides an example. During this century the tax take has increased from between 8 to 9 per cent of net national product at market prices to over 40 per cent. Over the same period, while the share accruing as disposable labour income has fluctuated around a constant secular trend, the share accruing as disposable net property income has fallen from around 45 per cent of net national product at market prices to around 14 per cent.

As property income is squeezed by taxation, firms in marginal

industries sooner or later find themselves in a precarious financial position. From their disposable net income (all that is left out of income after meeting tax demands), they cannot pay an acceptable take-home pay to their employees, provide an acceptable return to those enjoying property rights over the firm itself and, at the same time, fund the investment necessary to remain competitive.

As these threatened firms tend to be in industries that are basic to the well-being of the economy as a whole – such as agriculture, mining, railways and the like – in combination, the firms have the power to demand, and get, a measure of protection, such as tariffs, and some financial support from government. By inhibiting trade, protection damages the whole trading economy, and government financial support requires an increased tax take. Thus, a course is set along a road, upon which with every succeeding step economic and social difficulties are intensified and multiplied.

Along this road political pressures and the immediate needs of the economy eventually force governments into either taking over existing firms in a failing industry, or allowing firms to go to the wall, setting up in their stead new state corporations. When this happens there is brought into existence what is called a ‘mixed economy’. In a mixed economy some property rights over the non-human factors of production are vested in the state, and thus any property income that may accrue is a public income available to help fund public expenditure. However, the industries brought into the public sector in this way are typically loss-making firms who have failed, or who were in danger of failing, in the private sector.

Governments find, therefore, that instead of being in receipt of a property income, they are forced to increase public spending to pay an acceptable take-home pay to the new public employees and to provide funds for long overdue new investment. More public spending means an increased tax take and an increased tax take puts even more firms at risk. Once established, the public sector of mixed economies, like Topsy, ‘just growed and growed’. As the public sector grows, so also does the tax take.

The Reaction

For the quarter of a century following the end of World War II the elected governments of developed trading economies sought to mitigate social and economic afflictions by ‘big government’ with extensive welfare schemes and a large public sector.

Taxation was accepted, not only as the means of raising the required public revenue, but also as an essential fiscal instrument for managing the economy. In general, the approach they followed was consistent with the then dominant policy prescriptions of the demand-side school of economic thought. When it became a fact of experience that this approach was failing and was creating more troubles than it mitigated there came a reaction both in politics and in economic thought.

The reactionary approach, consistent with the now dominant supply-side school of economic thought, requires the slimming down of government, the so-called ‘targeting’ of welfare schemes, a significant contraction of the public sector, and a cut in the tax take. Unfortunately there is no evidence that any government has met the latter requirement to any significant extent.

In any event, the latest approach must fail as did the earlier, so long as government remains ignorant of any acceptable alternative to persistently continuing to flout the principle of private property by imposing taxation as the means of raising public revenue.

Neither the old nor this new economic orthodoxy can offer any enlightenment to government on this fundamental issue.

As Ricardians note the primary division of wealth as between rent and wages, the later schools note a primary division of income between labour income and property income, but fail to perceive further the special nature of a free market trading economy and as a consequence accept without question that public revenue means tax revenue. Worse, they continue to accept also without question that the amount of tax revenue is to be determined by government spending decisions.

References

1. D. Ricardo, *Principles of Political Economy and Taxation*, Ch. II.
2. A. C. Pigou, *The Theory of Unemployment*, Ch. IV, p.17.
3. J. S. Mill, *Principles of Political Economy*, Bk. II, Ch. I, para. 3.
4. *Ibid.* Bk. II, Ch. II, para. 1.

3

The General Theory of Employment

In the conditions prevailing in contemporary industrialised trading economies, fiscal policy directed towards sustaining prosperity must take into account, amongst other things, the full effects of government spending and taxation upon inflation, unemployment, and international competitiveness.

In all these matters Keynes' general theory of employment is potentially a useful tool of analysis.

First, by considering supply and demand together it allows the effects of demand-side policies to be distinguished from the effects of supply-side policies. At one time demand-side policies may be appropriate, at another time supply-side, and at yet other times a combination of the two may be needed.

Second, by assuming a short-run functional relationship between the volume of output and the amount of employment, the theory of Keynes treats the level of output and employment as a single *dependent* variable.

Thus, unlike the earlier 'classical' theory of employment, it does not require the assumption of an automatic tendency towards full employment which is manifestly contrary to twentieth century experience. Nor does Keynes' theory require the assumption of an automatic tendency towards some exogenously determined natural rate of unemployment, as does contemporary monetarism. Indeed, the monetarists' concept of a 'natural rate of unemployment' is not significantly different from the earlier concept of full employment as understood by what Keynes called the 'classical' economists.

Third, the theory as formulated by Keynes is described in terms of expected market prices, and so is relevant to the formulation of counter-inflationary policies.

Fourth, the use of the method of comparative statics allows for an objective to be set relative to the current state of an economy on to which the dynamics may be superimposed.

Finally, as will be argued, developing Keynes' theory leads to the logical conclusion that to sustain prosperity and a high level of employment, without such undesirable side-effects as accelerating inflation, then government must find an alternative to taxation as a means of raising public revenue.

The substance of the theory as formulated by Keynes is that any competitive economy tends towards a level of activity determined by the point of intersection of an aggregate demand function and an aggregate supply function.

The aggregate supply price Z of the output of any given amount of employment N is the 'expectation of proceeds' which will just make it worth while for firms to give that amount of employment. The aggregate supply function $Z=\Phi(N)$ expresses the relationship between Z and N .

The aggregate demand price D is the proceeds firms expect to receive from the output of any given amount of employment N . The aggregate demand function $D=f(N)$ expresses the relationship between D and N .

When the value of D is greater than the value of Z firms will have an incentive to expand and, conversely, when the value of D is less than the value of Z firms will have an incentive to contract.

Thus, argued Keynes, an economy tends always towards a level of activity at which the value of D equals the value of Z . Keynes called the value of D at this point of intersection 'the effective demand'. However, this is also the point at which the value of Z equals the value of D and so with equal validity may be called *the effective supply*. Had Keynes used the term 'the effective supply' rather than 'the effective demand', and had he emphasised also

‘the point of true inflation’ rather than an alternative term ‘full employment’ for the point where the aggregate supply price curve becomes vertical, then the later development and application of his theory may well have been significantly different.

He was, of course, a man of his time, and in the 1930s demand and employment were the prime topics.

The Bargaining Mechanism

The concepts of the aggregate demand price and aggregate supply price as used by Keynes in his general theory of employment are developments in the Marshallian tradition, and therefore take into account the basic process of bargaining.

Any particular bargain is the result of an agreement between two parties and each party expects to gain from the exchange that follows. Bargaining is not a zero sum game. It is the expectation of gain that provides each party with the motivation for the trade. In a monetary economy the party bidding a money sum in exchange for the goods and services on offer is called, by convention, the buyer. The party offering the goods and services in exchange for a money sum is called the seller. The money sum the buyer agrees to pay the seller is called the price. As measured by the price, the point at which any particular bargain may be struck is confined within certain limits.

The top limit, beyond which the price cannot rise, is determined by the buyer, who will have in mind a certain money sum in excess of which he is not prepared to strike a bargain with the seller for the goods and services on offer. At the top limit the buyer is indifferent. At any price below the top limit the buyer prefers the goods and services on offer to the money sum being asked, and at any price above the top limit the buyer’s preference is to hold the money sum rather than to obtain the goods and services on offer.

The bottom limit, below which the agreed price cannot fall, is determined by the seller who will have a certain money sum in

mind below which he is not prepared to strike a bargain with the buyer for the goods and services on offer. At the bottom limit the seller is indifferent. At any price above the bottom limit the seller prefers the money to the goods and services offered. At any price below the bottom limit the seller prefers to keep the goods and services on offer rather than to accept the money sum bid.

During the process of bargaining a buyer will know his top limit but will not know, and cannot know, the seller's bottom limit. The seller will know his bottom limit but will not know, and cannot know the buyer's top limit. Striking a bargain is possible only if there is a *bargaining gap*, that is to say where a buyer's top limit in money terms is, in the general case, greater than a seller's bottom limit expressed in the same money terms. Between these top and bottom limits the price at which a bargain is struck will depend on the bargaining skills and powers of the two parties.

The importance of bargaining skills in affecting the price is recognised by the many firms which employ specialist buyers and sellers. The most important bargaining power is the knowledge of the existence, or in the case of a monopoly the non-existence, of an alternative market.

The Aggregate Supply Price

In the special case of a bargaining process confined to a spot transaction, the bottom limit of the seller is indeterminate in the sense that it will depend solely upon the seller's preferences at a given moment and in a particular set of circumstances. In certain special circumstances the seller may even be prepared to make a money payment to the buyer.

For example, a manufacturer, in order to dispose quickly of a piece of machinery for which he has no further use, may offer money as an additional inducement even though the machine is usable, not fully depreciated, and might be expected in different circumstances to command a positive market price.

In general, however, the bargaining process is part of the continuing or future production of an output and the bottom limit is determined by the money sum the seller expects will just make it worth while to produce the goods and services being offered. This money sum will be based on the seller's estimate of total cost including a minimum amount of profit.

Thus, in line with the Marshallian tradition (although not so specified by Keynes), the aggregate supply price of the output of a given amount of employment is an aggregate of the bottom limits of firms acting as sellers and considered as going concerns. Being an aggregate based on information known only to sellers, it is a supply-side view of an economy. Given circumstances in which public expenditure is financed by taxation, then, consistent with the definition of Keynes, the aggregate supply price of the output of any given amount of employment is the proceeds firms expect will cover disposable labour income, or take-home pay, and total tax payments, plus an amount of disposable profit just sufficient to induce firms to operate at that level of activity.

In Figure 1 the aggregate supply price is that described by an aggregate supply function $Z=\Phi(N)$. As is argued below, this curve is related – given the definition of the aggregate supply price stated above – to an aggregate of total cost curves. It follows that at some level of activity N_0 marginal cost equals average cost and therefore at this point average cost is at a minimum.

For an economy as a whole, that level of activity N_0 at which average cost is minimised is also that at which the general price level will be lowest consistent with an expectation of profit just sufficient to induce that level of activity. In this sense such a level of activity may be considered as coinciding with the optimum utilization of existing capacity. At any level of activity to the left of N_0 marginal cost is less than average cost and existing capacity is, in general, under-utilized. In the other direction, at any level of activity to the right of N_0 marginal cost is higher than average cost and existing capacity is, in general, over-utilized.

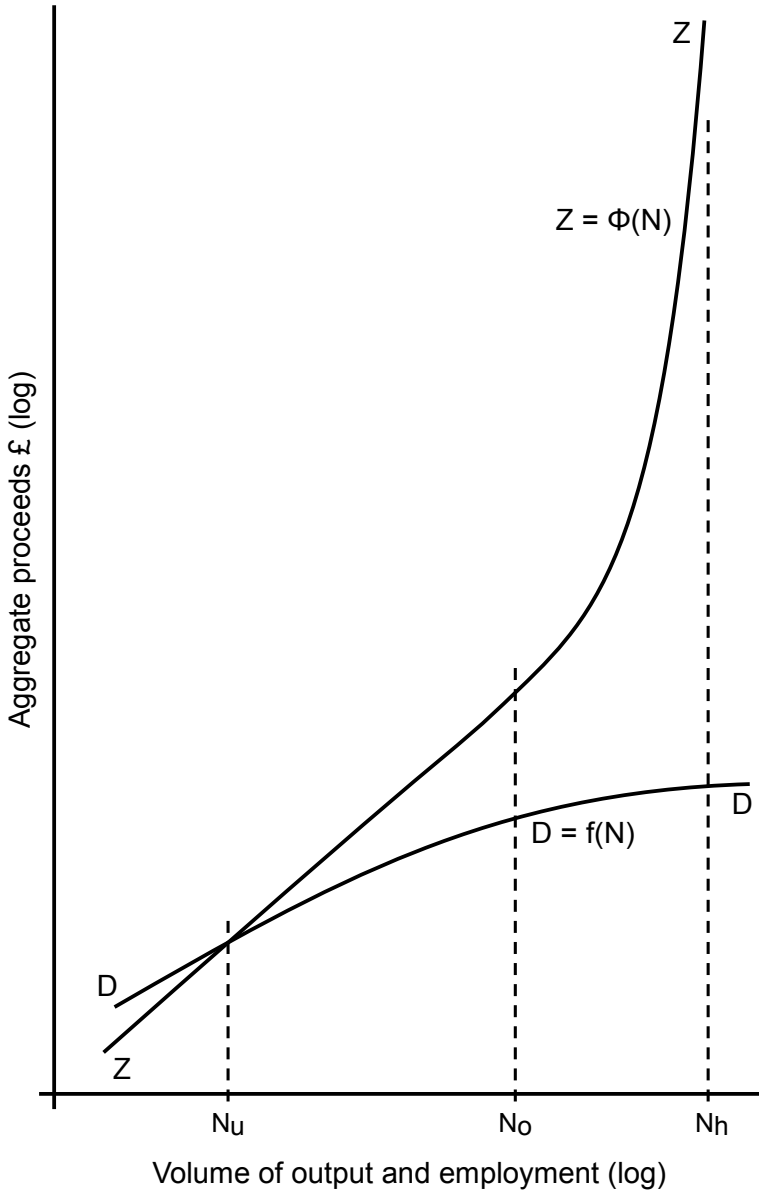


Figure 1

Thus, at any level of activity less than the optimum and to the left of N_0 in Figure 1, an expansion of activity to the optimum will be associated with a falling general price level. Further expansion beyond the optimum and to the right of N_0 is associated with a general price level rising at an ever accelerating rate.

At the level of activity N_h corresponding to a vertical aggregate supply price curve in Figure 1, further expansion is impossible in the prevailing conditions, and any additional aggregate monetary demand will be fully absorbed by rising prices. Keynes called this point 'a state of true inflation', but it is more in the nature of a supply horizon.¹

From a supply-side point of view N_h is as far as may be seen in the short run, during which existing capacity is a fixed factor that limits expansion of output. In the longer run, the supply horizon is not fixed, but will move to the left or right as firms vary their investment or disinvestment in output capacity, depending on their expectations of the future course of business.

The Aggregate Demand Price

In any particular bargaining process the top limit of the buyer is indeterminate since, like the seller's bottom limit in the case of spot transactions, it depends solely on the buyer's preferences at a particular moment in a given set of circumstances.

However, this is irrelevant to Keynes' theory, as the aggregate demand price is not an aggregate based on the top limits of buyers but, as stated above, *the proceeds firms expect to receive* from the output of a given amount of employment. In other words, it is an aggregate of the net receipts from the per unit prices firms expect buyers to pay for a given quantity of output.

Note to Figure 1

Since Figure 1 is on a log-log scale, marginal cost equals average cost at the point where the aggregate supply price curve is tangential to a line at 45° sloping upwards to the right, corresponding to the vertical line at N_0 .

Thus, the aggregate demand price, like the aggregate supply price, is derived from a supply-side view of the bargaining process.

From this supply-side view, the aggregate supply price is an aggregate of sellers' bottom limits, but the aggregate demand price is not, and cannot be, an aggregate of buyers' top limits, for this would require information that sellers, having a supply-side view only, cannot know.

In a closed economy the aggregate demand price is generally accepted to be the sum of expected consumer spending, investment spending, and general government spending on final consumption ($C + I + G$). The standard system of national accounting conforms to this definition. This approach is useful for demand management, but the acceptance of this definition results in the component parts of the aggregate demand price being unrelated to the component parts of the aggregate supply price as defined above.

A correspondence of the components of the aggregate demand price and the aggregate supply price, consistent with the supply-side view taken by Keynes for the general theory of employment, requires that spending on consumption and investment, $C + I$, is redefined to include only spending out of the take-home pay and disposable net profit components of the aggregate supply price. General government spending, G , is then defined as spending out of tax revenue plus general government borrowing requirement.

An advantage of redefining the theory in this way is that general government propensity to spend out of tax revenue plus borrowing requirement is, by definition, always equal to unity.

In Figure 1, the aggregate demand price curve is that described by an aggregate demand function $D=f(N)$. The point of intersection of the two functions is drawn to correspond with a level of activity N_u implying 'slumpy' conditions in which existing output capacity is generally under-utilized and, as a result, firms are confronted by an inelastic demand price curve.

To the right of any point of intersection, the theory of Keynes predicts the aggregate demand price curve to be less elastic than

the aggregate supply price curve. At a level of activity to the left of N_0 , the economy as a whole is subject to decreasing average cost. In the case illustrated in Figure 1, therefore, the economy must, by derivation from the aggregate supply price, be faced with an inelastic aggregate demand price curve.

An economy will be faced with an elastic demand price curve only when it is subject to an increasing average cost, with the point of intersection to the right of a level of activity corresponding to N_0 and approaching the supply horizon, N_h .

The aggregate demand price curve is not limited by the supply horizon and is therefore shown as cutting the perpendicular at N_h .

A Supply-Side View

The view of an economy as a whole as illustrated by Figure 1 is a supply-side view – the view of sellers, or producers, or firms. That this is a supply-side view is important. It is the fact of this view which refutes the argument that, as there cannot be more than one market price, there is a logical contradiction in the assumption that both the aggregate demand price and the aggregate supply price represent the expectations of firms.

For example, Patinkin argued that at any level of activity to the left of a point of intersection, such as N_u in Figure 2 below, firms expect two different per unit market prices: one corresponding to the aggregate supply price N_uZ , and the other corresponding to the aggregate demand price N_uD .²

This argument ignores the fact of a supply-side only point of view. Firms, as suppliers, can view an economy only from the supply-side. For firms, the aggregate demand price N_uD is the proceeds they expect to receive from the output of a given amount of employment N_u . The aggregate demand price N_uD corresponds then to the per unit market prices that firms expect buyers will pay for the particular quantity of output which would be the outcome of their giving an amount of employment N_u .

The aggregate supply price N_uZ is not, however, an expected market price, but corresponds to the per unit prices firms expect will yield, at that level of activity, proceeds just sufficient to cover total costs, including a minimum profit.

The expectation of proceeds N_uZ is sufficient to induce firms to produce the output of an amount of employment N_u but, under the given conditions of demand, they expect to receive more for that quantity of output; they expect to receive N_uD .

In other words, in the market conditions illustrated by Figure 2, and operating at a level of activity N_u , firms expect proceeds to yield a profit in excess of that which would just make it worth their while to produce the output of an amount of employment N_u .

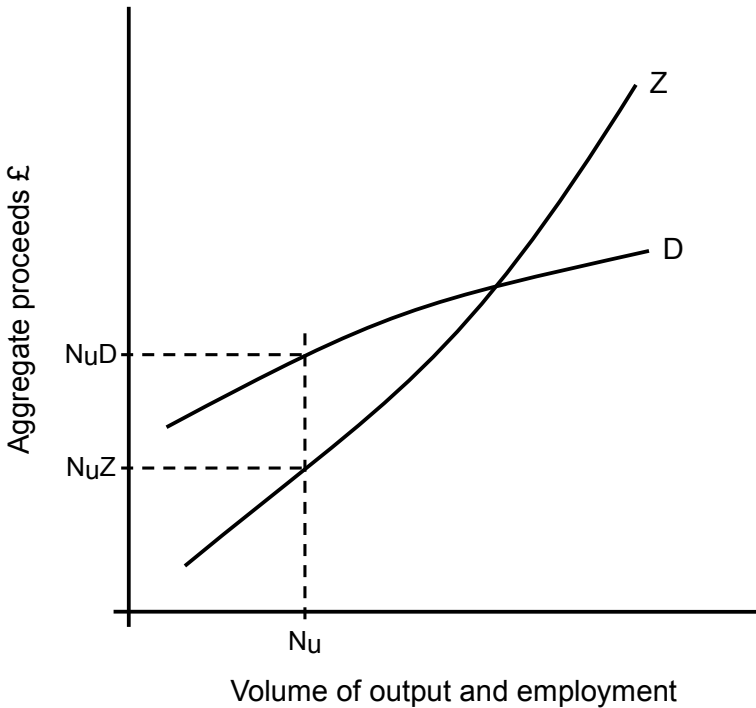


Figure 2

At any level of activity the total of the per unit market prices firms expect buyers to pay for a given output corresponds always to the aggregate demand price. Only at the point of intersection, where the value of D equals the value of Z , does the total of the expected per unit market prices of output correspond also to the aggregate supply price.

Indeed it is that which, according to Keynes' theory, stops an economy tending automatically towards the supply horizon – the point Keynes called 'full employment' or 'a state of true inflation'.

At any level of activity to the right of a point of intersection the value of D is less than the value of Z . This implies a circumstance in which the per unit market prices that firms expect buyers to pay will yield a profit insufficient to induce them to operate at such a level of activity.

Profit

In a firm's accounts profit is a residual item. This profit is a money sum that has actually accrued to a firm during a given time period and, in the accounting sense of a money sum actually realised, it is realistic to assume an individual firm to be a profit maximising organisation. It is in the interests of every firm to endeavour to ensure that its realised profit during a given time period is the best possible that can be achieved in the competitive conditions within which it operates.

As Adam Smith stated: 'It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity but to their self-love, and never talk to them of our own necessities but of their own advantages'.³

However, profit is, in the accounting sense, a result, and while firms in their own interests may be assumed to strive for the best possible result, production for sale is a risk-taking activity, and for an individual firm that result may be a loss.

Whether the accounting result is a gain or a loss, it is not the profit that enters into the aggregate supply price, as this is a certain sum the expectation of which is just sufficient to induce firms in aggregate to operate at a particular level of activity.

The amount of profit, the expectation of which is just sufficient to induce a firm to operate at any given level of activity in a particular line of production, is determined by a variety of factors.

For example, the profit expectation must be sufficient to cover the disposable income expectations of shareholders.

The expectations of shareholders will be related in turn to the alternative opportunities open to those shareholders, as well as to the current market view in national and international stock and capital markets.

In the case of a quoted company the extent to which it fulfils the expectations of its shareholders and of the financial markets will affect its share price. A company's share price cannot be allowed to fall much below the current market price of its net assets without endangering its continued existence as an independent entity.

In all cases the expected profit must be sufficient also to ensure that capital funds are available, or can be raised on competitive terms, to finance any new investment necessary to maintain the firm's competitive edge.

Thus, for every firm, there is a minimum profit which is in the nature of a cost and which, taking one year with another, must be covered by the expected proceeds arising from the output of a given amount of employment, if the firm is to continue to give that amount of employment.

In a competitive market economy any firm, or group of firms in combination, which attempts to achieve a profit much in excess of a necessary minimum by restricting output and raising prices must expect to encourage competitors and suffer a loss of market share.

For example, the OPEC policy of raising the price of crude oil by restricting the output of its members encouraged exploration and production in non-member countries throughout the world and

so led to a loss of market share for OPEC members.

Apart from exceptional cases of monopoly, or near monopoly, the fear of additional competition and a loss of market share will overcome the attraction of a short-run 'fast buck'.

All firms must act with 'regard to their own interest', as Adam Smith recognised, and to this extent individual firms may be considered to be profit maximising organisations.

Taking the longer term view, however, what is effectively a maximum profit under competitive conditions for an individual firm is related, not to the point where its marginal cost equals its marginal revenue, but to the point where its total cost, including a minimum profit, equals its total revenue.

The competitive struggle in which all firms are engaged in an open trading economy causes them to drive each other towards a level of activity at which they can expect both individually and in aggregate no more than an amount of profit that is just sufficient to induce that level of activity.

It is this necessary minimum amount of expected profit that is, for individual firms and for firms in aggregate, in the nature of a cost which is the profit included within the aggregate supply price.

By definition, all points on the aggregate supply price curve are points at which the expected disposable net profit is the minimum needed to induce firms to operate at that particular level of activity.

In Figure 1, therefore, the point of intersection of the aggregate demand function and the aggregate supply function is also a point of minimum profit. Moreover, at any level of activity in excess of that corresponding to the point of intersection, for example to the right of N_u in Figure 1, profit will be less than firms need to induce such a level of activity.

In the opposite direction, at any level of activity less than that corresponding to the point of intersection, for example to the left of N_u in Figure 1, the expected profit will be, as the value of Z is less than the value of D , in excess of that minimum needed to induce firms to operate at that level of activity.

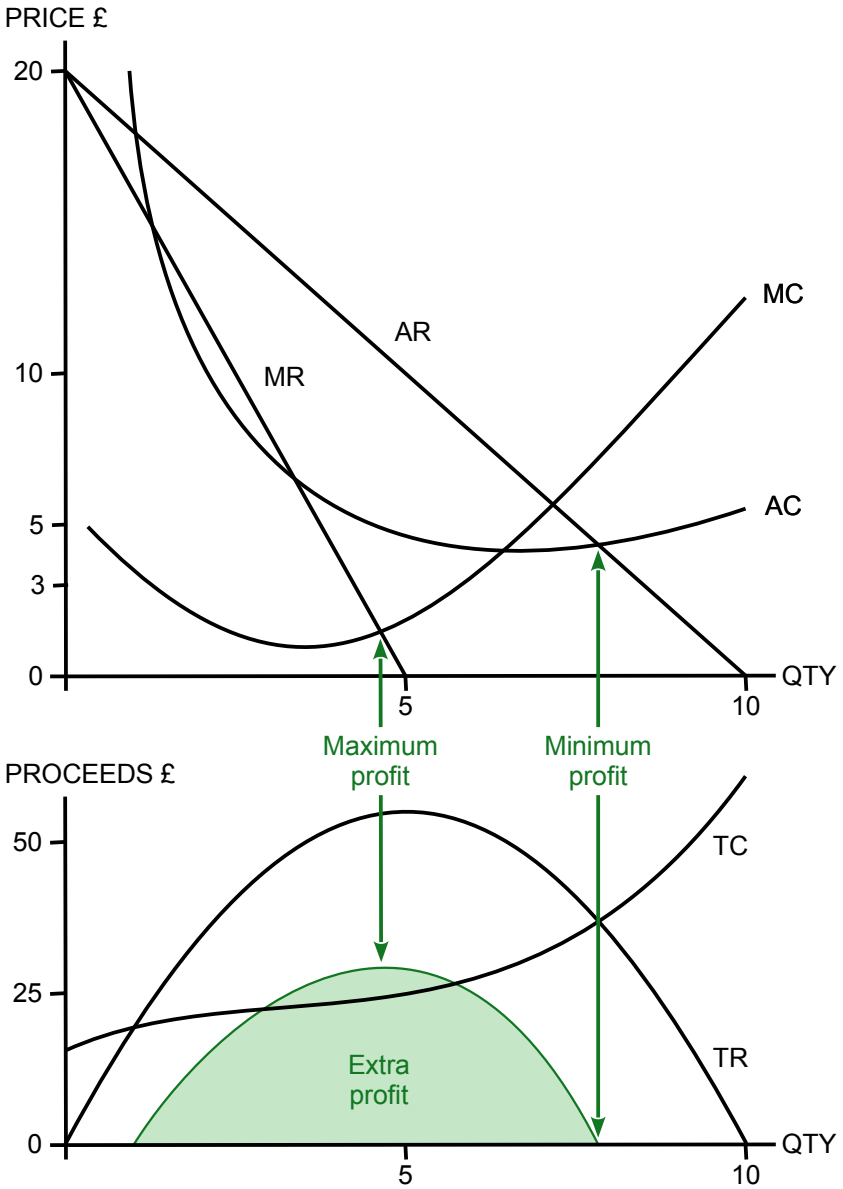


Figure 3

Thus, the general theory of employment predicts that in the short run, during which existing conditions and capacity are fixed factors, an expansion of activity will tend always to be associated for firms in general with a smaller profit or a greater loss, and on the same assumptions, the theory predicts for firms in general a contraction of activity to be associated in the short run always with a tendency towards an expected larger profit or smaller loss.

Keynes' assertion that the point of intersection is the "point that entrepreneurs' expectation of profits will be maximised" is thus inconsistent with his own definitions and with predictions from his theory based on those definitions.⁴

His assertion is consistent only if the aggregate demand price curve and the aggregate supply price curve are aggregates of the marginal revenue curve, MR, and the marginal cost curve, MC, as illustrated in the upper part of Figure 3. However, Keynes defined both the aggregate demand price and the aggregate supply price in terms of 'the proceeds', which he used as a convenient shorthand for 'the aggregate income (i.e. factor cost plus profit)'. He did not use the words *additional* or *marginal* proceeds which would imply aggregates based upon marginal revenue and marginal cost.⁵

Thus, his aggregate demand price must be taken as an aggregate of *total* net revenue, and his aggregate supply price an aggregate of *total* net cost including a minimum acceptable profit. This level of revenue contains profit 'which will just make it worth the while of the entrepreneurs to give that employment'.⁶

Note to Figure 3

By convention, demand is drawn as a straight line sloping downwards to the right, represented here by the average revenue line AR. The marginal revenue may then be derived as the line MR, and the marginal cost curve MC passes through the lowest point of the average cost curve AC.

The intersection of MR with MC is a point of maximum profit, and the intersection of AR and AC is a point of minimum profit. In the lower part of the diagram the area of extra profit is the difference between the total revenue curve TR and the total cost curve TC.

Such a profit can be interpreted therefore only as a minimum. If firms in aggregate are now assumed to be profit maximisers, then Keynes' theory predicts that an economy will tend automatically to contract away from the point of intersection at which the effective aggregate demand price and the effective aggregate supply price have the same value.

As illustrated on Figure 3, individual firms, when considered as profit maximising organisations, tend to contract from the level of activity indicated by the minimum profit vertical, as determined by the intersection of total cost and total revenue curves, towards the maximum profit vertical, determined by the point of intersection of the marginal cost and marginal revenue curves.

For an economy as a whole to tend automatically towards that level of activity corresponding to the point of intersection of the aggregate demand and aggregate supply functions, the requirement must be that firms do not, or cannot, operate as profit maximising organisations in a competitive market economy.

The Demand-Side Approach

This development of Keynes' general theory of employment gives some limited support to those who advocate sustaining a high level of public spending as the way towards a prosperous economy.

When government spending G is increased then *cet. par.* – other things being equal – the value of D is increased for all values of N .

In Figure 1 this is equivalent to an upward shift of the aggregate demand price curve which, in turn, causes the point of intersection to move further to the right and creates conditions tending to cause an expansion of the economy.

At first sight this may appear an easy option but the theory also predicts that travelling too long and too far on this road is likely to create as many difficulties as it solves. If the expansion is pushed beyond a point corresponding to N_0 on Figure 1, then the economy will be subject to a persistently rising general price level and home

producers will therefore tend to lose their competitive edge in both home and overseas markets.

Again, given circumstances in which government relies on tax revenue to finance public spending, there are only three ways open to government to raise the necessary additional public revenue and all have deleterious side-effects.

A government may, as Milton Friedman put it, simply print the additional money needed. That this method of public finance soon leads to inflation is a fact of repeated experience. As inflationary expectations spread throughout the economy, the last state is worse than the first. The additional public spending is absorbed in rising prices rather than encouraging expansion and so inflation is added to whatever troubles existed at the outset.

Another option open to government is to increase taxation. With this method of financing additional public spending, the increase in taxation, T , tends to increase the value of Z for all values of N .

In Figure 1, this causes an upward shift of the aggregate supply price curve in step with the intended upward shift of the aggregate demand price curve. As these two curves rise together, the point of intersection rises almost vertically, leading to rapidly rising prices with little or no expansion of activity. Unless the money supply is increased as prices rise then, very quickly, the rise in prices will be followed by a contraction of activity. Yet again, the theory predicts that this method of financing public spending results in the last state being worse than the first.

The remaining option open to the government is to finance their additional spending by borrowing. The eventual outcome of this method depends to a large extent on the particular circumstances at the time and the precise method by which government borrows.

When government borrowing is no more than another method of increasing the money supply, it is the same as printing money. This leads directly to inflation, with the consequences noted above.

When the method of government borrowing conforms to what Milton Friedman and others have called 'true borrowing', then it

will not be a direct cause of inflation, although it may cancel out expansionary tendencies motivated by additional public spending.

This cancelling out will happen when the funds borrowed by government would otherwise have been spent by the private sector. As public spending financed by true borrowing increases, private sector spending on investment is squeezed out and so there is little or no net effect on aggregate demand.

Only when government is borrowing 'idle balances', generated by an economy's propensity to save being somewhat greater than its propensity to invest, will the financing of public spending by true borrowing have the intended expansionary impulse without the addition of unwelcome side-effects.

This kind of operation is often called a pump priming measure and may be expected to jerk an economy out of a prolonged state of depression. Such a policy was advocated by Keynes and other leading economists during the early thirties as a way out of that particular period of depression. At the time, it was called 'deficit spending on public works'.

Nonetheless, even in appropriate circumstances, the policy is no more than a once-and-for-all measure which cannot be sustained. As an economy begins to expand, the generation of 'idle balances' will decrease as the propensity to invest increases to equate with the propensity to save. As this process continues, true borrowing by government will begin to squeeze out private sector investment spending and will cease to have its original expansionary effect.

Thus, Keynes' general theory of employment supports a policy of increased public spending by deficit financing only in certain circumstances and only as a short-run pump priming measure.

The Supply-Side Approach

The development of Keynes' general theory of employment also gives some support for supply-side tax cutting policies. When a government cuts its tax take then the value of T is reduced and this

tends to reduce the value of Z for all values of N . In Figure 1, this represents a downward shift of the aggregate supply price curve.

This shift, *cet. par.* – other things being equal – will move the point of intersection to the right, and tend to expand the economy.

However, the *cet. par.* qualification assumes that there is no significant change in the aggregate demand price curve, but this is unlikely unless public spending, G , also remains unchanged. It is unlikely since, although a cut in tax take will increase the private sector's disposable income, the private sector's propensity to spend out of its disposable net income is usually less than government's propensity to spend out of tax revenue.

The *cet. par.* qualification assumes also that public spending is sustained without incurring a deficit which then has to be met by printing money or borrowing.

In certain circumstances and given an open economy this latter assumption may be realistic. A reduction in the value of Z for all values of N allows home producers to become more competitive as against overseas producers and thus create a tendency for exports, E , to increase not only absolutely but also relative to imports, M .

An increase of exports and reduction of imports may thus be expected to compensate for some cut in public spending without causing a reduction in aggregate demand. Further, as most of any expansion will be reflected in home produced incomes, this will lead to buoyant tax revenues and will assist in preventing a deficit.

Since Keynes' general theory predicts that a cut in the tax take will reduce the value of Z for all values of N , then the logical conclusion is that an open market economy can attain the lowest possible aggregate supply price in given conditions only when all domestic taxes are abolished.

When the value of Z for all values of N is the lowest possible, then home producers have the opportunity to be most competitive in both home and overseas markets. Only when home producers are highly competitive in world markets can an open free market economy be prosperous and sustain a high level of activity.

The weakness of Keynes' theory is that, while leading to such a conclusion, it does not then offer a solution to the issue of raising the necessary public revenue without recourse to taxation.

The strength of Keynes' general theory is that it does isolate the fundamental difficulty facing all contemporary trading economies: taxation must, sooner rather than later, inflate the aggregate supply price and lead inevitably to a loss of competitiveness, rising prices, and rising unemployment.

The theory serves also as an analytical tool for discovering the processes by which taxation affects both prices and employment.

An understanding of these processes is a prerequisite for the formulation and implementation of effective policies designed to remedy the defects which today seem to be inherent in free market open economies.

References

1. J. M. Keynes, *The General Theory of Employment, Interest, and Money*, Bk. III, Ch. 10, p.119.
2. D. Patinkin, *Money, Interest, and Prices*; and other works.
3. Adam Smith, *The Wealth of Nations*, Bk. I, Ch. II.
4. J. M. Keynes, *op. cit.* Bk. I, Ch. 3, p.25.
5. *Ibid.* p.24.
6. *Ibid.* p.24.

4

Tax Analysis

Economic theorists hold, with reasonable consistency, that the essence of a tax is the absence of a direct *quid pro quo* between the taxpayer and the public authority. It is this that distinguishes a tax from other charges that may be imposed by a public authority.

A useful definition is that provided by Hugh Dalton: ‘a tax is a compulsory contribution imposed by a public authority irrespective of the exact amount of service rendered to the taxpayer in return, and not imposed as a penalty for any legal offence’.¹

This definition is not a classification of individual taxes, and it does not rest upon the shifting sands of what are, for one purpose or another, from time to time ‘always called taxes’ or ‘never called taxes’, a difficulty identified by the economist Edwin Cannan.²

It excludes public authority revenues from public property and from the pricing policies of state owned enterprises. Any revenue derived from public property or from state owned enterprises is not different in kind from the private incomes that arise from private property and private enterprise, and a ‘monopoly tax’ imposed by a state owned monopoly is not different in kind from a ‘monopoly tax’ imposed by a privately owned monopoly.

On the other hand, this definition includes, for example, those payments that today are called ‘national insurance contributions’ or ‘social security contributions’.

In particular Dalton’s definition is useful since taxation enters into the aggregate supply price for the specific reason that it is ‘a compulsory contribution imposed by a public authority’ and is not a payment made for ‘the exact amount of service rendered to the taxpayer in return’.

The administrative classification of taxes used by most writers on public finance is no tool for economic analysis. This method of classification is based on the assumption that tax incidence accords with the intentions of the taxing authorities.

A tax is classified as a 'direct tax' because the taxing authority intends it to be paid by the person who receives the income upon which the tax has been assessed. Likewise, in the case of social security contributions, employee contributions are intended to be paid by employees, while employer contributions are intended to be paid by employers.

A tax is classified as an 'indirect tax', or expenditure tax, when the taxing authority intends the tax to be passed on, in full, to the final consumer by way of higher prices. For example, excise duty on beer is classified as an indirect tax because the taxing authority intends the tax to be passed on from the brewer to the publican as a price increase, and then to be passed on yet again by the publican as a price increase to the final purchaser.

At this superficial level the administrative classification appears to conform with the facts of experience. Consumers know as a fact of experience that price rises are often justified by, and follow very closely upon, increases in indirect taxation and thus the tax inflated price appears to fulfil the intentions of the taxing authorities.

Employees are reminded regularly of 'direct taxation' by the difference between gross pay and take-home pay that is printed on their pay slips. To them, this tax wedge appears to reduce directly what otherwise would have accrued to them as disposable income.

However, in the case of taxation, what appears to be is not what is. To politicians, the administrative classification of taxes has an obvious attraction, as it carries with it the implicit assumption that tax incidence accords with their intention. This allows tax changes to be justified to the taxpayer by all manner of slogans.

Awkward questions relating to tax increases may be avoided by claiming to 'tax the rich to help the poor', 'redistribute incomes', and so on.

Again, depending on whether one is supporting or opposing the government, tax cuts may be presented as ‘making the rich richer’, ‘extending freedom of choice’, or ‘letting the money fructify in the pockets of the people’, and so on.

The media like to refer to a tax-cutting budget as ‘a give-away budget’. This sounds a very pleasing note, but is akin to describing a burglary where some of the valuables have been left behind as a ‘give-away burglary’.

Nonetheless, these and other similar slogans do not prevent the expressed good intentions of politicians being thwarted in practice.

The intended payers of a tax can and do retaliate, whilst those expecting a ‘gift’ from the Chancellor of the Exchequer will often come away empty handed, or find their position worse than before.

In matters of fiscal policy the administrative classification of taxes assists in the creation of political myths and provides a fine facade which obscures fiscal injustice.

An Alternative Classification

Sir John and Lady Ursula Hicks provide an alternative framework for tax analysis by distinguishing between the *formal incidence* and the *effective incidence* of a tax. In most cases the formal and effective incidence do not coincide, but are linked through both time and space by the process of *tax shifting*.³

The formal incidence of a tax refers to the initial impact of the tax. For example, an increase in the social security contributions of employees reduces their take-home pay immediately and directly by the amount of the increase. The reduction in take-home pay is a measure of the formal incidence of the increase in that particular tax. Elsewhere, however, Lady Ursula Hicks points out that the calculation of the formal incidence says nothing of the taxpayer’s reaction or of its consequences.

In the *Economic Journal* she used Pantaleoni’s metaphor of a stone being thrown into a pond, in which the formal incidence of a

tax is taken as analogous to the plop of the stone as it breaks the surface of the pond. This stone will set up an ever widening circle of ripples disturbing the surface and eventually causing damage to the banks. The ripples are analogous to the tax shifting process and the damage to the banks is analogous to the effective incidence.⁴

Lady Ursula emphasises that tax analysis needs to be able to trace the whole sequence of events. For example, retaliation to a tax-imposed cut in the amount of take-home pay by demands for higher amounts of gross pay will set off a tax shifting process. This tax shifting process will upset the equilibrium of firms and markets as it continues to where the burden of the tax finally comes to rest, at the point of the *effective* incidence of that tax.⁵

The sequence that follows a stone being thrown into a pond is useful in illustrating the operation of a particular tax through the economic system, but the analogy has its limitations and these often lead those engaged in tax analysis to attempt the impossible – with misleading conclusions.

In the economic pond there is not one stone, one ever widening circle of ripples leading eventually to some damage to the banks of the pond. There are a multitude of stones thrown continuously into the economic pond; the ripples cross and re-cross, combine and separate, re-combine, separate yet again, and reach the banks only to rebound and cause further disturbance.

As it is impossible to trace the disturbance caused by one stone out of a multitude, so also it is impossible to trace any one of many taxes from its formal incidence through the process of tax shifting to its effective incidence – the place where the tax shifting process stops. With the shifting process tax effects merge; as they merge the effects of one tax become indistinguishable from the effects of many others, or even from the effects of the tax system as a whole.

Thus, while the distinction between the formal and the effective incidence provides a framework that enables tax analysis to take into account the whole process of tax shifting, the classification of taxes has of necessity to be based on the formal incidence of a tax.

As soon as the effects of one tax merge with the effects of other taxes, this administrative classification becomes meaningless.

In their formal incidence all taxes create a tax liability and a tax liability is, in common with other liabilities, a component part of the aggregate supply price. However, not all taxes in their formal incidence cause a change in the aggregate supply function, that is, cause a change in the value of Z for all values of N . For example, the formal incidence of an increase to employees' social security contributions will increase tax liability and simultaneously reduce take-home pay by a money sum equivalent to the increase in tax.

Thus, in its formal incidence, the imposition or change of the amount of employees' social security contributions will not cause a change in the aggregate supply function. Any increase or decrease in employees' tax liability is simultaneously offset by a decrease or increase in take-home pay and therefore, *cet. par.*, the value of Z remains unchanged for all values of N .

On the other hand, the formal incidence of an increase in the amount of employers' social security contributions will increase the tax liability of firms, but will not cause an offsetting decrease in other component parts of the aggregate supply price.

Thus, in its formal incidence, the imposition of or change in employers' social security contributions will cause a change in the aggregate supply function. The value of Z will be changed for all values of N by precisely the same money sum as the amount of the tax change and with the same positive or negative sign.

The distinction thus made by Sir John and Lady Hicks, taken in conjunction with Keynes' general theory of employment, provides a useful alternative to the administrative classification of taxes.

Taxes can be classified on the basis of the effect of their formal incidence on the aggregate supply function, Z . When the formal incidence of a tax does not cause a change in the aggregate supply function, it can be classified as an *income-effect* tax. When the formal incidence of a tax is the cause of a change in the aggregate supply function, it can be classified as a *supply-effect* tax.

In many cases this macroeconomic method of classifying taxes cuts across administrative classifications. For example, local rates in the United Kingdom were assumed to inflate the current market price for renting dwellings and business premises and, as a result, were classified as taxes on expenditure in accordance with the administrative classification of taxes.

Using the macroeconomic classification based on the effect of the formal incidence upon the aggregate supply function, domestic local rates were an income-effect tax. In their formal incidence they could not affect the aggregate supply function.

Local rates on business premises were a supply-effect tax. By their formal incidence they directly affected a firm's costs and as a result caused a change in the aggregate supply function.

Similarly, the proposed Council Tax that is about to be levied on domestic householders is an income-effect tax, while the proposed Uniform Business Rate to be paid by firms is a supply-effect tax.

The Formal Incidence

The analysis of the formal incidence of a change in taxation implies a run short enough to preclude the possibility of retaliation by taxpayers. This is to say there is no possibility of a tax shifting process being motivated.

Such an analysis casts doubts on the conventional wisdom of demand management techniques in so far as the immediate effects on an economy are concerned. Demand management techniques are based on the assumption that any increase in the amount of taxation is always contractionary, or deflationary, or both, and that conversely, a cut in the amount of taxation is always expansionary, inflationary, or both.

For example, in the practice of demand management techniques an increase in those taxes included within what was formerly called 'the regulator' is held to be counter-inflationary. The policy intention is to 'take the heat out of the economy' by a tax-induced

rise in prices, leading to a cut-back in aggregate real demand; thus an increase in tax intended to raise prices is considered to be both contractionary and, paradoxically, counter-inflationary.

However, analysis based on the formal incidence of changes in the amount of taxation leads to the conclusion that, in the short run at least, assumptions inherent in demand management techniques do not always hold in the real world.

There are many circumstances in which the impact of a change in the amount of taxation will produce immediate results precisely the opposite of those predicted and intended by the advocates of demand management.

In any period of time short enough to preclude tax shifting, the result produced by the formal incidence of a change in the amount of taxation depends on a number of factors, such as: the propensity of government to spend out of tax revenue, and the relationship of this to the propensity of the rest of the economy to spend out of its disposable income; whether the change applies to income-effect or supply-effect taxes; the elasticities of the relevant sections of the aggregate demand price and aggregate supply price schedules; and the elasticity of the money supply.

Thus, the formal incidence of a change in the amount of *supply-effect* taxation causes an immediate change in the aggregate supply function since, by definition, there is a change in the value of Z for all values of N . The change in the aggregate supply function will cause in turn (assuming an unchanged aggregate demand function) a shift in the point of intersection.

As shown in Figure 4 below, a cut in supply-effect taxation by an amount $-T_s$ shifts the aggregate supply price curve downwards from Z to Z_1 and therefore moves the point of intersection with the aggregate demand curve D to the right, corresponding to a higher level of activity N_1 .

Such an expansionary policy is, on these assumptions, counter-inflationary and most likely to be associated with a tendency for the general price level to fall.

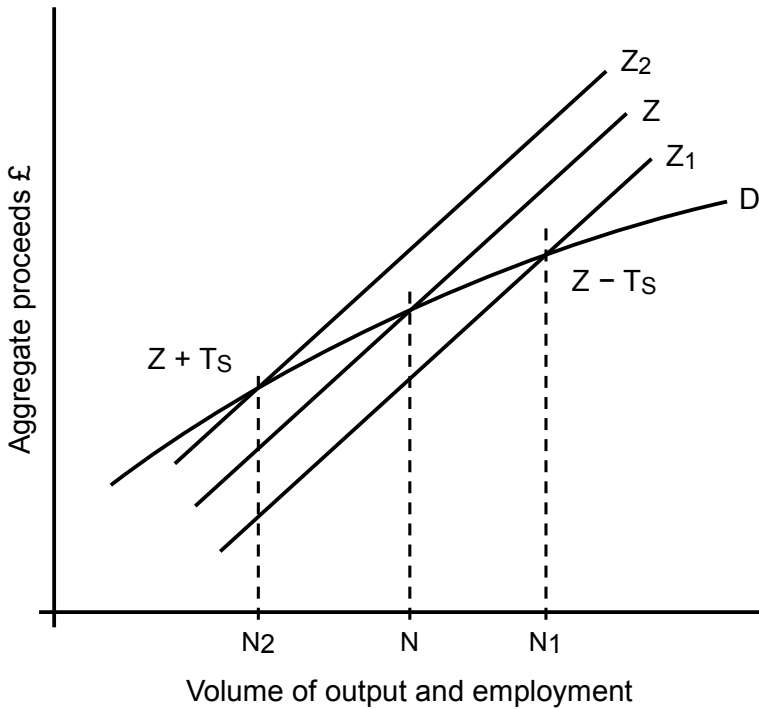


Figure 4

Conversely, an increase in supply-effect taxation by an amount $+T_s$ shifts the aggregate supply price curve upwards from Z to Z_2 , causing the point of intersection to move to the left, corresponding to a lower level of activity N_2 . In most cases the contraction of activity will be associated with a rising general price level, but in some cases, especially when the money supply is highly inelastic, a supply-effect tax increase may precipitate a slump of sufficient intensity to bring about a fall in the general price level.

Whether the formal incidence of a change in the amount of supply-effect taxation affects the aggregate demand function, D , will depend largely upon the government's marginal propensity to spend out of tax revenue.

A change in the amount of supply-effect taxation will not, in its formal incidence, cause any change in non-government disposable incomes, but it will cause a change in the non-government sector's expected tax liability.

What from the point of view of firms is seen as a change of their expected tax liability is, from the government's point of view, a change in its expected tax revenue.

If government's marginal propensity to spend out of tax revenue is equal to zero, then the aggregate demand function is likely to remain unchanged. The formal incidence of a cut in supply-effect taxation will provide an expansionary impulse, while an increase will provide a contractionary impulse.

When the government's marginal propensity to spend is greater than zero, then it is to be expected that government spending will change to some extent in line with the change in tax liability. A cut in supply-effect taxation will then be associated with a reduction of government spending, while an increase will be associated with an increase in government spending.

In these circumstances the formal incidence of the tax change will cause the aggregate demand function to change in a way that reduces the tax effect on the level of activity and increases the tax effect on the general price level.

When government's marginal propensity to spend out of tax revenue is equal to unity then, given a sufficiently elastic money supply, the formal incidence of a change in the amount of supply-effect taxation will affect the general level of prices and leave the level of activity in the economy as a whole largely unchanged. A cut in supply-effect taxes will tend to reduce prices and an increase will tend to raise prices.

Within this overall result there will be some disturbance as a consequence of the expected change in government demand, or government induced demand, relative to non-government demand.

In Figure 5 below, government's marginal propensity to spend out of tax revenue is assumed to be equal to unity.

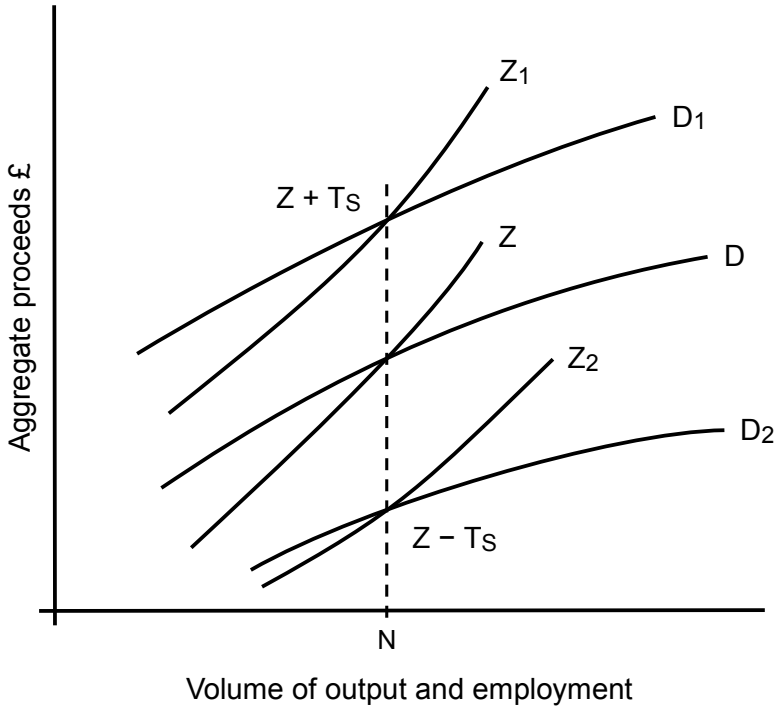


Figure 5

Thus, with this additional assumption, the formal incidence of an increase in supply-effect tax by an amount $+T_s$ results in both the aggregate supply price curve Z , and the aggregate demand price curve D , shifting upwards to Z_1 and D_1 respectively. The upward shift of both curves by the same amount causes the point of intersection to rise vertically, implying a tendency for the general price level to rise whilst the level of activity is unchanged.

The formal incidence of a cut in supply-effect tax by an amount $-T_s$ results in both the aggregate supply price curve Z , and the aggregate demand price curve D , shifting downwards to Z_2 and D_2 respectively. The downward shift of both these curves by the same amount causes the point of intersection to fall vertically implying a

tendency for the general price level to fall with the level of activity unchanged. In both cases the elasticity of the money supply will determine the trade-off between a change in the general level of prices and a change in the level of activity.

The formal incidence of a change in the amount of *income-effect* taxation by definition cannot cause a change in the aggregate supply function, although in certain circumstances it may motivate a change in the aggregate demand function.

The aggregate demand function will be unaffected by the formal incidence of a change in the amount of income-effect tax only when government's marginal propensity to spend out of tax revenue is equal to the non-government sector's propensity to spend out of its disposable income. Given this, any increase or decrease in government's expected spending will be fully offset by a decrease or increase in non-government expected spending.

When government's marginal propensity to spend out of tax revenue is *greater than* the rest of the economy's marginal propensity to spend out of their disposable income, then the formal incidence of an increase in the amount of income-effect tax will tend to increase aggregate demand price. Although government expected tax revenue will increase by the same amount as the rest of the economy's expected disposable income is reduced, the government's expected spending will rise by more than the non-government sector's expected spending falls.

Thus, the aggregate demand price curve will shift upwards as the value of D is increased for all values of N , and the point of intersection will move to the right consistent with an expansion of the economy.

Likewise in the same circumstances the formal incidence of a reduction in the amount of income-effect tax will tend to contract activity. The increase in the non-government sector's expected spending out of its additional disposable income will not fully offset the fall in government's expected spending out of a smaller tax revenue.

As the value of D falls for all values of N the aggregate demand price curve will shift downwards and the point of intersection will move to the left, consistent with a contraction of activity.

When government's propensity to spend out of tax revenue is *less than* the rest of the economy's propensity to spend out of their disposable income, then the tendencies described in the preceding paragraphs are reversed. The formal incidence of an increase in income-effect tax will tend to contract activity. The rise in government's expected spending out of an increased tax revenue will be less than sufficient to offset the fall in the non-government sector's expected spending out of their reduced disposable income.

As the value of D falls for all values of N the aggregate demand price curve will shift downwards causing the point of intersection to move to the left, consistent with a contraction of activity.

Given the same relationship between propensities to spend between the government and non-government sectors, the formal incidence of a reduction in the amount of *income-effect* tax will tend to expand an economy. The rise in non-government expected spending out of an increased disposable income will more than offset the fall in government's expected spending out of a smaller tax revenue. As the value of D increases for all values of N the aggregate demand price curve will shift upwards causing the point of intersection to move to the right, consistent with an expansion of activity.

The formal incidence of *supply-effect* taxation directly inflates the aggregate supply price and automatically motivates a process of tax shifting which tends to raise prices, or to contract output and employment, or to some combination of these two.

With *income-effect* taxation the process of tax shifting is only motivated when the taxpayer retaliates against the imposition of the tax. When the amount, or change in the amount, of income-effect tax is insufficient to cause the taxpayer to retaliate, or when the taxpayer cannot retaliate, then the formal incidence is also the effective incidence of the tax. Adam Smith, for example, argued

that the receivers of ground rents cannot shift a tax imposed on their rental income.

In contemporary economic theory it is accepted in general that a tax imposed on monopoly or rental incomes cannot be shifted.

In most cases, however, the formal incidence of an income-effect tax does cause the taxpayer to retaliate, and this does set in motion a process of tax shifting. Once this process is motivated, whether directly by the imposition of the tax or by the retaliation of taxpayers, it will continue until either the effect of the tax has been shifted onto incomes whose recipients cannot retaliate, or the amount of the tax becomes so diffused throughout the economy as to become insufficient at any one point to cause further retaliation.

The process of tax shifting results in a significant difference between the formal and effective incidence of a tax. Indeed, where tax incidence finally comes to rest is often a matter of chance and is unlikely, except by accident, to accord with any policy intention.

Of even greater importance for individuals, firms and the well-being of an economy as a whole, is the fact that the tax shifting process is the cause of much disturbance and distortion throughout the economy and in particular is a significant primal cause of both rising prices and unemployment.

References

1. Hugh Dalton, *Principles of Public Finance*, Ch. V, p.32.
2. Edwin Cannan, in his evidence to the Royal Commission on Local Taxation of 1899, said: 'The state revenues which are always called taxes do not appear to us to be divided by any sharp line from those which are never called taxes.'
3. J. R. & U. K. Hicks, *The Incidence of Local Rates in Great Britain*.
4. Maffeo Pantaleoni, *Teoria della Traslazione dei Tributi*.
5. U. K. Hicks, *The Terminology of Tax Analysis*.

5

Tax and Inflation

Any amount of taxation results in a higher general price level than would be the case without that amount of tax. Any cut in the amount of existing taxation results eventually in a lower general price level than would be the case had the tax not been cut. This tax effect on the general price level is brought about through the mechanism of the tax shifting process. The shifting process not only diffuses the effects of a tax throughout the economy and shifts the tax onto its effective incidence, but it is also the mechanism by which any change in the amount of tax is absorbed by an economy through a movement from one general price level to another.

To investigate the tax shifting process and its effect on prices, the following simplifying assumptions are made: a marginally balanced budget; a neutral monetary policy (in the sense of the supply of money being equal to and determined by the demand for money); and the non-government sector's propensity to spend out of disposable income equal to unity – that is, the non-government sector's propensity to save is equal to its propensity to invest.

Let it be supposed that government increases the amount of *income-effect* taxation through the imposition of a withholding tax assessed on the gross pay of employees.

The formal incidence of the additional amount of income-effect tax will not cause any change in the aggregate supply function.

On the demand side the simplifying assumptions ensure also no change in the aggregate demand function.

Increased government spending out of additional tax revenue will be expected fully to offset the reduced consumer spending out of a smaller take-home pay.

In a period short enough to exclude the possibility of retaliation by employees, there is likely to be only temporary disequilibrium while the economy adjusts to an increase of government spending relative to non-government spending.

Retaliation by Taxpayers

It is also likely, however, that an opportunity will arise, sooner or later, for employees to retaliate against the tax-imposed cut in their take-home pay by demanding from their employers an increase in their gross pay. The evidence indicates that this opportunity will be taken by employees and that eventually employers will accede to these demands.

Adam Smith concluded that all taxes imposed upon the gross pay of employees are shifted by employees onto their immediate employer. He implied net of tax wage bargaining to be the general rule, and argued that a 20 per cent tax assessed upon the pay of employees would result in a 25 per cent rise in their gross pay.¹

Just over two hundred years later his view is supported by the results of statistical investigations using the extensive and detailed contemporary data now readily available.²

The OECD reported in *Public Expenditure Trends* for 1978 that 'labour unions do attempt to shift income tax increases forward onto higher money wages, and net of tax wage bargaining seems to be a rather common phenomenon in all OECD countries.'³

In the case of a withholding tax on gross pay the process of tax shifting begins with those pay increases that follow directly from employee retaliation against the tax increase. As the employees recover from their employers the amount of take-home pay lost already to the withholding tax, the aggregate supply price rises by the full amount of the tax so recovered.

Moreover, with a progressive tax system, higher gross pay is likely to lead to further tax liability as a result of some employees moving into a higher tax bracket, and this too will be taken into

account in the pay negotiations. Thus, an additional amount of income-effect taxation in the form of a withholding tax will cause, by its formal incidence, a retaliation process which sets in motion a shifting of tax from employee to employer. This shifting process causes the value of Z to increase for all values of N , probably by more than the original amount of the tax increase.

By assumption, the aggregate demand price (the proceeds firms expect to receive) is also increasing, simultaneously and equally with the aggregate supply price. As illustrated earlier in Figure 5, the point of intersection therefore rises vertically upward.

Given the assumed conditions set out above, the process of shifting the additional income-effect tax causes a rising general price level to be associated with an unchanged volume of output and employment. Although arising from a different cause, this situation is in appearance what Maynard Keynes called 'a state of true inflation'.⁴

It is also a state of inflation in the sense in which that term is used by Milton Friedman and other monetarists, as the money supply is increasing at a faster rate than the growth of real output.

As the general price level rises, the purchasing power of all money incomes falls, and it is in this way that the tax shifting process works to effect a diffusion of tax incidence throughout the economy. In the absence of complete money illusion, the erosion of real take-home pay by rising prices will be the cause of further pay demands by employees.⁵

This is the phenomenon called 'the wage-price spiral', a label which tends to obscure the retaliation taking place on a much wider front. The pay of employees is not a special case, as the fall in the purchasing power of money affects everyone in receipt of a money income.

Inevitably, for the same reason as in the case of employees, the receivers of money incomes other than take-home pay will also be motivated, as soon as the opportunity arises for them, to retaliate against rising prices by seeking higher money incomes.

With the advent of this second stage of retaliation, an extensive self-generating element is injected into the process of tax shifting.

As money incomes in general rise in an attempt to regain lost purchasing power, then further price rises follow and, in turn, are the cause of further retaliation by the receivers of money incomes.

Progressive taxation adds to these inflationary pressures. Even assuming no increase in tax rates, there will arise automatically an additional tax liability as a result of bracket creep for taxpayers.

However, although the diffusion of the tax incidence by rising prices injects an element of self generation into the process of tax shifting, it does, at the same time, tend to bring about a running down of the process.

As noted already, most economic theorists from Adam Smith to the present day conclude that those in receipt of certain classes of money incomes cannot retaliate against the incidence of any tax that happens to fall upon that income.

As the incidence of taxation becomes more and more diffused throughout the economy, an increasing amount of tax falls upon those who cannot retaliate by further tax shifting. Meanwhile the residual balance of the tax becomes so thinly spread that it is less and less likely to motivate those who are able to retaliate.

The tax shifting process ceases when the formal incidence of the tax which caused the initial retaliation process is diffused, by the process of shifting, into an effective incidence which cannot, or does not, motivate further shifting.

A cut in the amount of *income-effect* taxation will motivate a tax shifting process in the reverse direction to that which follows upon an increase. During the time this takes to work through the economic system the process will lead, given the assumptions set out above, to a fall in prices with little or no change in the volume of output and employment. For example, a reduction in the amount of withholding tax assessed on the gross pay of employees will result, through its formal incidence, in an increase in take-home pay by an amount equal to the tax cut. At the next round of pay

negotiations net of tax wage bargaining is likely to lead to a lower settlement than would otherwise have been the case in the absence of a tax cut – Adam Smith’s argument and contemporary evidence suggest that net of tax wage bargaining works both ways.

Thus some part or even the whole of the benefit arising from the reduction in tax is shifted from the employees to the employer in the form of lower labour costs than otherwise would have been the case had there been no tax cut. The working of market forces in a trading economy will ensure that eventually firms reflect their lower labour costs in the selling prices of their output. As this latter stage becomes general the benefit of the tax reduction is spread throughout the economy.

The formal incidence of an increase in the amount of *supply-effect* taxation, by definition, will cause an increase in the value of Z for all values of N equal to the amount of the additional tax.

Simultaneously, given the assumptions specified, the value of D will increase for all values of N by that same amount.

In this case the tax shifting process may be considered as activated automatically, as firms will have no option if they are to remain in business but to adjust as necessary to the tax-imposed increase in their supply price.

The formal incidence of an increase in supply-effect taxation is, therefore, with the minimum of time lag, a direct cause of rising prices and an erosion of real incomes. As the opportunity arises it is to be expected that all income receivers will retaliate against the erosion of their real income. In so doing they motivate the second stage of the tax shifting process which is indistinguishable from that following upon an increase in the amount of income-effect taxation. Again, once this second stage is set in motion it too will continue until the formal incidence of the additional tax is diffused throughout the economy into an effective incidence which cannot, or does not, motivate further retaliation.

Thus, a change in the amount of supply-effect taxation tends automatically by its formal incidence to affect prices immediately,

and demand management techniques therefore rely on this class of taxes as so-called 'regulators'.

Nonetheless, the demand management argument, that a change in the amount of supply-effect tax will cause only a once and for all change in prices, is valid only on the assumption of persistent and complete money illusion, or in those cases where the change in the amount of tax is so small that the resultant change in prices is too little to activate retaliation.

Tax Inflation

As has just been described, the tax shifting process is essentially a mechanism by which an economy adjusts to a change in the total amount of taxation through a movement from one relatively stable general price level to another relatively stable general price level.

For this adjustment to be completed with the minimum of interference to the volume of output and employment, a neutral monetary policy is necessary.

Periods during which tax shifting is proceeding may therefore be appropriately described, depending on direction, as tax inflation or tax deflation.

During a period of tax inflation a neutral monetary policy requires the monetary authorities to allow the rate of increase in the money supply to be in excess of the rate of growth of real output. This is because, at any given volume of output and employment, rising prices will lead to an increase in the demand for money. If during such a period the rate of increase in the money supply is restricted to the rate of growth of real output then inevitably output and employment also will be restricted.

In a period of tax deflation the converse holds; in this case a neutral monetary policy implies a rate of increase in the money supply less than the rate of growth of real output.

Tax inflation describes the condition which prevails for as long as an economy is adjusting to an additional amount of total tax

through a rising general price level and, therefore, at any given level of activity the demand for money tends to rise as prices rise.

During a period of tax inflation a rate of increase in the money supply in excess of the rate of growth of real output is only the proximate cause of the rising prices. The primal cause of rising prices during the period is the additional amount of taxation.

So long as the tax shifting process continues, an apparently lax monetary policy is not so much the cause of inflation as a policy necessary to minimise the effect of government fiscal policy upon the level of activity.

This does not deny Milton Friedman's assertion that 'inflation is always and everywhere a monetary phenomenon' for undoubtedly, without the excess money supply the rate of inflation would be less and might even be a zero rate.⁶

Nonetheless, when applied to a period of tax inflation, Milton Friedman's assertion is likely to mislead, for it refers to no more than a proximate cause of the rising prices.

When an economy is going through a period of tax inflation, any attempt to 'squeeze inflation out of the system' by restricting the supply of money must also restrict output and employment, if not precipitate a slump.

The concept of tax inflation is consistent also with the restated quantity theory of money, for it admits of a stable demand function for real balances. This may be written as M/P , where M represents the quantity of money and P is the general price level.

When fiscal policy generates forces tending to raise the value of P , then the value of M will also need to be increased if a restrictive effect on the level of activity is to be avoided.

However, the concept of tax inflation does deny Friedman's proposition that 'fiscal policy is unimportant for inflation'.⁷

Fiscal policy is very important for inflation, for it is fiscal policy that is often the primal cause of rising prices, and it is the rising prices that lead to an increase in the money supply in excess of the rate of growth of real output.

The Economic Upper Limit to Taxation

The terms tax inflation and tax deflation describe conditions in an economy which can exist openly, given a neutral monetary policy, for only so long as it takes that economy to adjust to a change in the total amount of taxation by means of a movement from one relatively stable general price level to another relatively stable general price level.

In the case of tax inflation this assumes the total amount of tax is no larger than that which the process of tax shifting can diffuse into an effective incidence at some higher general price level. The larger the amount of taxation, the longer the tax shifting process will continue, and the higher will be the eventual general price level. Thus it is possible for the total amount of tax to be such as to cause both the shifting process and the rise in prices to continue indefinitely, and tax inflation then becomes a persistent condition.

For any economy, therefore, there must be, in given conditions, a maximum amount of total tax revenue which at some general level of prices is consistent with a zero rate of inflation without restricting the level of activity. This total amount of taxation is that amount which the shifting process can diffuse over a period of time into an effective incidence.

Following the terminology of Colin Clark in his pioneering empirical studies, this amount of tax revenue, relative to the net national product at market prices, can be called the *economic upper limit to taxation*.⁸

Provided that general government total tax revenue does not cause the economic upper limit to taxation to be exceeded, then tax inflation is a temporary condition only, limited to whatever period of time it takes the shifting process to diffuse the formal incidence of taxation into an effective incidence.

Whenever the total general government tax revenue causes the economic upper limit to taxation to be exceeded, there will exist a condition of persistent tax inflation.

Whether persistent tax inflation is open or suppressed is then determined by government policy. In fully controlled economies it is usually suppressed. In open trading economies with relatively free markets faced with persistent tax inflation, it is government monetary policy that determines the trade-off between the rate of inflation and the restriction of output and employment.

Demand management techniques may succeed in reducing the rate of inflation for a time, but in the longer run can only make the situation even more intractable.

Increasing taxes in an attempt to dampen real demand raises prices and restricts the growth of net national product at market prices. Restriction of growth and rising prices combine together to reduce the economic upper limit to taxation and lead eventually to a state Milton Friedman describes as 'stagflation'.

A tight monetary policy will suppress persistent tax inflation at the expense of a restriction on output and employment although, as in the case of the UK, this may be associated with improvements in productivity.

However, irrespective of any short-run benefits, should the level of activity begin to recover then the rate of inflation will again start to accelerate. Improvement in the level of activity will give rise to conditions conducive to retaliation against taxation, and so the process of tax shifting restarts.

The only effective policy to eradicate persistent tax inflation is a policy of cutting tax revenue which is directed towards reducing the tax-inflated costs of firms and expanding net national product at market prices.

When the economic upper limit to taxation is being exceeded, a prosperous economy and a zero rate of inflation are incompatible.

References

1. Adam Smith, *The Wealth of Nations*, Bk. V, Ch. II, Part II, Art. III.
2. Ronald Burgess, *Fanfare to Action*; Thomas F. Dernburg, *The Macro-economic Implications of Wage Retaliation Against Higher Taxation*; and C. J. Bruce, *The Wage Tax Spiral: Canada 1953-70*.
3. OECD, *Public Expenditure Trends*, 1978.
4. J. M. Keynes, *The General Theory of Employment, Interest, and Money*, Bk. V, Ch. 21, p.303.
5. J. R. Hicks, *Economic Perspectives – Further Essays on Money and Growth*, p.6.
6. Milton Friedman, *The Counter-Revolution in Monetary Theory*, p.24.
7. *Ibid.* p.24.
8. Colin Clark, *Economic Journal*, 1945; and *Taxmanship*, p.21.

6

Tax and Unemployment

Any tax sooner or later inflates the aggregate supply price and in an open trading economy the extent to which this causes firms to become uncompetitive must lead to some unemployment. More importantly, in the conditions prevailing throughout the western industrial economies, some methods of taxation operate directly to increase unemployment and to destroy jobs permanently.

To earn a living in a trading economy it is necessary to trade, and to trade one must have something to sell. In the general case in contemporary trading economies, those who supply the labour to productive enterprises have no title to the resulting output. They have nothing to sell but their labour. The complement to this is that those who expect to enjoy the title to the output must buy in, along with everything else, the labour necessary to produce that output.

Thus, in addition to markets for output, there arises a labour market in which the buyers and the sellers of labour come together and, through the process of bargaining, determine what is in effect a market price for labour.

Given this condition, withholding taxes assessed on the gross pay of employees and payroll taxes imposed on employers will combine to reduce directly the opportunities for employment by distorting the labour market through the effect of these taxes on both the bargaining process and the market price for labour.

In addition, these forms of taxation directly destroy jobs by acting as a subsidy for what from the employers' point of view are labour-saving investments. In fact, these kinds of investments are motivated by the employers' need to avoid tax in order to sustain competitiveness.

The Price of Labour

In economic theory the market price for labour is usually called ‘wages’, but this term is open to many conflicting interpretations.

Professor A. W. Phillips, when formulating what has become known as the ‘Phillips curve hypothesis’, took money wages to be the market price for labour.¹

This view of wages was described by Milton Friedman as being ‘utterly fallacious’ and he called upon ‘every economic theorist from Adam Smith to the present’ in support of his contention that the market price for labour is ‘real wages’.²

In this instance Milton Friedman has underrated Adam Smith’s perspicacity. In Chapter VIII of the *Wealth of Nations* Smith wrote: ‘The money price of labour is necessarily regulated by two circumstances; the demand for labour, and the price of the necessaries and conveniences of life’. He acknowledged also that this money price depended on an agreement between employer and employee ‘whose interests are by no means the same’.³

In the closing decade of the twentieth century Adam Smith’s second circumstance refers to the purchasing power of take-home pay – gross pay including benefits in kind less withholding taxes – in terms of what, following Pigou, are called ‘wage goods’.

This aspect of pay is of little direct concern to employers but it is of direct concern to employees. It is a factor determining the bottom limit below which an employee, as a seller of labour, is not prepared to settle with an employer. As has been argued, when the purchasing power of take-home pay is eroded by rising prices, it is employees who react. When the most employers are prepared to offer as take-home pay is less than the money sum represented by this bottom limit, employees withdraw from the labour market as suppliers of labour. Thus, Adam Smith did not argue real wages to be the market price for labour, as Milton Friedman claimed and others often imply, but rather that real wages are only one of the factors determining the money price and the supply of labour.

The first circumstance noted by Adam Smith as regulating the market price for labour is determined today by the demand from firms for the labour supplied by employees. This demand for labour is a *derived* demand – a demand derived by firms from the demand for the outputs produced by that labour. Thus the demand for labour is determined not so much by conditions in the labour market as by conditions in the markets for outputs. These markets for outputs determine also the per unit market prices of outputs.

As a result, therefore, the most firms can afford to pay for the labour demanded is determined by the conditions in the markets for output rather than by labour market conditions.

When the markets for outputs move in favour of firms as the sellers of outputs, then the demand for labour will tend to increase and the most firms can afford to pay for that labour will tend to rise. As the markets for outputs move in favour of the buyers of outputs, the demand for labour will tend to contract and the most firms can afford to pay for the labour demanded will tend to fall.

In the general case firms can effectively demand labour only to the extent that it is profitable for them to do so at the current market price which they must pay for that labour.

Pay Bargaining

In the process of pay bargaining the top limit above which the price for labour cannot rise is set by the most firms can afford to pay for the labour they demand. The theory of Keynes leads to the conclusion that pay settlements tend towards this top limit rather than, as past generations of economists and others have asserted or implied, the least employees are prepared to accept.

According to Keynes' theory the take-home pay included in the aggregate supply price is an aggregate determined by the top limits set by firms in the process of pay bargaining.

This is so by definition, for the take-home pay included within the aggregate supply price is, after allowing for expected total tax

liability, the most that firms can afford to pay directly to their employees, consistent with their expectation of a minimum profit that is just sufficient to induce them to produce the output from an amount of labour represented by that take-home pay.

If for some reason, other than a change in withholding tax, actual take-home pay turned out to be less than that expected by firms at any level of activity, then actual profit would exceed that amount of profit the expectation of which was just sufficient to induce firms to operate at that level of activity.

In this event the competitive struggle would cause firms to revise their individual supply prices downwards consistent with a minimum profit after taking into account the lower market price for labour in terms of take-home pay. This revision would lead to a downwards shift of the aggregate supply price curve shown in Figure 1 and, assuming an unchanged demand price curve, the point of intersection would move to the right corresponding to a higher level of activity. This higher level of activity would be that at which firms expected the most they could afford to pay out as take-home pay would approximate to actual settlements.

Conversely, if for a reason other than a change in withholding tax, actual take-home pay settlements turned out to be more than firms expected at a given level of activity, then actual profit would be insufficient to induce firms to sustain that level of activity.

The upward revision of their individual supply prices would lead to an upward shift of the aggregate supply price curve and, assuming an unchanged aggregate demand price curve, would lead to a contraction of activity.

The lower level of activity would again be that at which firms expected the most they could afford to pay out as take-home pay for labour would approximate to actual settlements.

The assumption of an unchanged aggregate demand price does not invalidate the conclusion that take-home pay settlements tend towards the most employers can afford to pay out, although it may exaggerate the resulting changes in the level of activity.

When settlements turn out to be less than expected, spending on consumption is likely to be less than expected. However, since the propensity to spend on consumption out of disposable income is generally less than unity, the shortfall in consumption demand is unlikely to be as great as the drop in take-home pay settlements.

The propensity of government to spend out of tax revenue plus borrowing requirement is always equal to unity, but spending on investment is often more a matter of conjecture. Larger profits than expected will tend to increase the amount of investment spending, whereas a shortfall in the expected spending on consumption will tend to reduce the amount of investment spending.

Taking all relevant factors into account, the downward shift of the aggregate demand curve is likely to be somewhat less than the downward shift of the aggregate supply curve. As a result of this, the expansion of activity would be less than if the aggregate demand curve was unchanged. Nonetheless, the economy would still tend towards a level of activity at which expected take-home pay settlements and actual settlements were close to each other.

Conversely, when actual take-home pay settlements turn out to be more than expected the aggregate demand price curve will shift upwards, but by something less than the aggregate supply price curve. The contraction of activity will be less than would be the case with an unchanged aggregate demand price curve but, again, the economy would tend towards a level of activity at which firms expected that the most they can afford to pay out as take-home pay approximated to actual settlements.

It is implicit in Keynes' general theory of employment that pay settlements tend towards the most firms expect they will be able to afford to pay for the amount of labour being demanded. From an employer's point of view this 'most' refers to the total labour cost, inclusive of taxes on employment, rather than take-home pay.

This offers an explanation for the process of pay bargaining seeming not to operate in some sections of the labour market, such as those which are non-unionised.

It has become commonplace for firms to offer jobs at a certain gross pay, inclusive of withholding taxes, leaving no bargaining position to a prospective employee other than taking or not taking the job. When the sum being offered is the most an employer expects to be able to afford to pay, there is no room for bargaining in an upwards direction, although if the offer is above the least an employee is prepared to accept then, in an effort to secure the job, the employee may offer to accept less pay.

On the other hand, when a prospective employer receives either very few applicants or no suitable applicants at the sum offered, the options are either to withdraw from the market or to find some means of improving the offer so as to attract those able to supply the labour required. Should there be a mass of suitable applicants, then the employer will either take care to select the employee who seems likely to give most in return for the pay offered, or withdraw temporarily from the market and re-advertise the job at lower pay.

In these cases it appears to the job applicant that the pay offered is a fixed price rather than a market price. Thus, the revolutionary conclusion to be drawn from Keynes' theory, that pay settlements tend towards the most employers expect to be able to afford, admits to the possibility, from the point of view of an employee, that in some cases the pay bargaining process may be more covert than overt. This fact of experience is one the labour market has in common with many other markets – especially trade in western countries between retailers and final consumers.

The Pay Bargain Gap

In pay bargaining both sides expect to gain an advantage from the eventual settlement, for, in common with other bargaining, it is not a zero sum game. Thus, for the pay bargaining process to reach a negotiated and agreed settlement, there must exist a positive gap, the pay bargain gap, between the most employers can afford to pay employees for the labour demanded and the least that employees,

or prospective employees, are prepared to accept in return for the supply of that labour.

Given both a pay bargain gap and settlements tending towards the most employers can afford to pay, then actual settlements will be responsive, like other market prices, to the general conditions in the markets for output, and they will also *appear* to be responsive to conditions in the labour market.

With a contraction in demand for outputs the aggregate demand price curve will shift downwards, tending to reduce the demand for labour and the most employers can afford to pay for that labour.

In the labour market, an increasing deficiency in the demand for labour will be associated with a fall in the average level of actual settlements, or at least actual settlements will be lower than might otherwise have been the case.

As the average level of actual settlements falls, the competitive struggle between firms will ensure that employers are compelled to revise their expectations of labour costs in a way tending to shift the aggregate supply price curve downwards.

As this happens, market forces begin to work towards a slowing down and eventual reversal of the downswing in activity.

Conversely, with an upswing of activity following an expansion of demand for outputs, market forces will work towards a slowing down and an eventual reversal of the upswing.

As the aggregate demand price curve shifts upwards with the upswing of activity, the demand for labour by employers will expand and the most they can afford to pay for that labour will rise. The average level of actual pay settlements will then also rise, causing employers to revise their expectations of labour costs in a way tending to shift the aggregate supply price curve upwards.

Given circumstances that allow for both pay bargaining and the free play of market forces, Keynes' general theory of employment supports the hypothesis of a Phillips curve relationship between the rate of change of pay settlements and the prevailing rate of unemployment. When an economy is on an upswing of activity the

rate of unemployment will tend to fall and to be associated with a tendency for pay settlements to rise; conversely, when an economy is on a downswing, a rise in the rate of unemployment will then be associated with a tendency for pay settlements to fall.

This conclusion, however, does not appear to be consistent with Keynes' hypothesis of an economy being in stable equilibrium in slumpy conditions, as illustrated in Figure 1, in which 'involuntary unemployment' accounts for a significant proportion of the total.

For Keynes' hypothesis to be sustained it needs to be shown that in certain cases the pay bargain gap ceases to exist, preventing the free play of market forces.

Maynard Keynes formulated his general theory of employment during the early 1930s. This was a period of worldwide depression and followed a decade of persistent price deflation, particularly in the UK. The domestic purchasing power of sterling rose by 60 per cent from 1920 to 1930, that is to say 12s/6d (62.5p) in 1930 was equal to the purchasing power of £1 in 1920.

A period of deflation and depression in combination will cause the aggregate demand price curve to shift downwards substantially and relatively quickly and with this the most employers can afford to pay for labour will fall sharply. On the other side, the least employees are prepared to accept in return for supplying their labour is determined more by psychological forces than by market forces and, as a consequence, will respond only slowly to the changing economic conditions. Thus the pay bargain gap is closed, or may even become negative, and the least that employees are prepared to accept now becomes the determining factor for pay settlements. Once this has happened market forces will not work towards a recovery except in the very long run.

This long run will last for as long as it takes for economic and social conditions to break through the psychological barriers of employees and force down the least they are prepared to accept in return for supplying their labour to something less than employers can afford to pay.

During the 1930s Keynes and other economists advised giving the economic system an external shock by increasing government expenditure on public works, and encouraging a small rise in the general price level, as a way out of that particular depression.

It is certainly arguable that such a policy might have increased the most employers could afford to pay for labour relative to the least employees were prepared to accept. However, while this may offer an explanation and a solution for the depression of the 1930s, it does not apply to the present time.

In the UK the domestic purchasing power of the pound sterling has been falling continuously for over fifty years, and during the decade of the 1980s it declined by over 40 per cent. For more than the last twenty years, persistent inflation and unemployment have both been always significant and sometimes very high indeed.

Taxes on Employment

An alternative explanation for the high rates of unemployment during the last quarter of the twentieth century is offered by the monetarist school of economic thought. A sharp fall in the rate of inflation, they argue, will affect immediately the most employers can afford to pay for the supply of labour, but on the employees' side inflationary expectations will adjust far more slowly.

This circumstance may lead also to a closing of the pay bargain gap and cause employers to contract their demand for labour as the market price, determined by the least employees are prepared to accept, becomes more than employers can afford to pay.

In this case the hump in unemployment will last for as long as it takes for employees to revise their inflationary expectations and to cease to hold out for substantial annual pay increases.

This monetarist account does explain at least some part of the recent very high levels of unemployment, but it does not explain a significant part of the problem in countries such as the UK, where unemployment has been on a rising trend since the mid-1950s.

In cases such as these the major cause of unemployment is the persistent squeezing of the pay bargain gap by the ever increasing reliance of successive governments on the revenue received from payroll and withholding taxes, which are assessed on the gross pay of employees.

In combination these two methods of raising tax revenue are the most effective for destroying employment opportunities, and they may be accurately described, therefore, as *taxes on employment*.

The imposition of a payroll tax does not affect the most that employers can afford to pay for labour in total, but it does reduce immediately, by the full amount of the tax, the most employers can afford as gross pay to their employees. In this way all payroll taxes act directly and immediately by their formal incidence to close the pay bargain gap.

In the UK, examples of this method of taxation are the former selective employment tax and national insurance surcharge and the current employers' national insurance contributions.

Of greater importance in the longer run, however, is that such payroll taxes act to subsidise so-called 'labour saving investment'. As this tax effect operates over the longer run, its results are far more difficult to correct. If an employer can replace an employee by a machine, then the liability for payroll tax is avoided. In the multitude of marginal cases it is just this element of tax avoidance that makes the new labour-saving investment profitable. Once the investment has been made it will last for a long time and so set up a new pattern of production and trade. Thus, to avoid tax, jobs are destroyed, perhaps for ever.

Whether this new pattern is real progress or a distortion of the economy is a matter of chance. Much of this tax-induced labour-saving investment does not save any labour from the point of view of the community as a whole. Often, the result is no more than a transfer from paid labour to unpaid labour.

For example, it was no accident that the move to self-service retailing across the UK coincided with the imposition of selective

employment tax in 1966 by the then Labour Chancellor of the Exchequer. The new tax was intended to help expand employment in the manufacturing sector by increasing the cost of labour in the service sector. The intention of the administrators was in one part fulfilled. The new tax hit the multitude of small and family owned retailers hard and their trade was taken away by large groups with sufficient funds available to avoid the tax by capital investment in self-service stores.

From the narrow point of view of the retail trade this investment was labour saving and brought about measurable improvements in productivity. From the point of view of householders it was quite the reverse. It ceased to be commonplace for the householder to place an order with a shopkeeper and have the goods delivered to the doorstep by a roundsman or an errand boy. The tax priced the overwhelming majority of householders out of the market for such personal services. Today a householder has to get out the car, drive to the supermarket, try to find a parking space, walk around the supermarket and collect the goods needed from the shelves, queue at the checkout point, load the car, drive back, and then unload the car – all of it very time-consuming unpaid hard labour. Did the enormous investment in response to the tax really save labour?

Certainly, the tax reduced the field open to profitable trade and in so doing destroyed employment. Selective employment tax has long since been abolished but the new pattern of retailing, having become established, continues to grow. The old success story of errand boy to boss is a possibility no longer – taxation has knocked out the bottom rungs of the ladder, and the possibility of a success story has been replaced by the actuality of the young unemployed people who, lacking work experience, are unable to find jobs.

As with payroll taxes, withholding taxes assessed on the gross pay of employees also close the pay bargain gap. The imposition of a withholding tax does not affect the least that employees are prepared to accept as take-home pay, but by its formal incidence it does increase by the full amount of the tax the least employees are

prepared to settle for with an employer in terms of gross pay.

As has already been shown, withholding taxes are soon shifted by employees onto the immediate employer, and eventually inflate the cost of labour to an employer. Through the tax shifting process this method of raising tax revenue, like payroll taxes, destroys jobs as the resulting high cost of labour once more encourages labour saving investment. Other deleterious effects include a tendency for employees to be less willing to supply any additional labour when required, as they prefer to spend their extra time in activities which do not attract tax. 'Why should I work for the taxman?' becomes the all too frequent response to an employer's request for overtime working. A flourishing black economy is the end result.

Taxes on employment – payroll and withholding taxes on gross pay combined – not only work directly to close up the pay bargain gap, making pay negotiations more difficult and poor industrial relations more likely, but also destroy jobs, distort the economy, and, by encouraging the black economy, bring the law itself into disrepute. From time to time it is argued that the authorities should clamp down on the black economy as the revenue gained would enable some other tax rate, and usually income tax is chosen, to be halved, or some such substantial reduction. This is nonsense.

Given the continuation of high employment taxes, if the black economy were to be brought within the tax net, there would be no net gain in revenue as the output it currently produces would cease to be produced. The economy as a whole would be that much the poorer. The black economy exists and thrives on tax evasion, and at tax-inflated prices its effective demand would vanish. The first step towards eradicating the black economy is the removal of its main underlying cause by the abolition of taxes on employment.

When taxes on employment are increased to a point where they close the pay bargain gap completely, then a fundamental change takes place in the operation of the labour market. The most that employers can afford to pay for the labour they demand becomes, after allowing for employment tax liabilities, no more than the

least that employees are prepared to accept as take-home pay for supplying that labour. There is no room for bargaining.

With this, the labour market ceases to operate to bring buyers and sellers of labour together to negotiate and agree a market price for labour advantageous to both parties. Instead, the market begins to operate as if it were a fixed price monopoly market.

Since the least employees are prepared to accept as take-home pay is unresponsive to changes in market conditions, employers find themselves faced with a fixed price, or cost, for labour which is effectively determined exogenously by government at the time it legislates to fix the amount of taxes on employment.

When, by means of taxes upon employment, governments close the pay bargain gap, and create a fixed price labour market, both employees and employers find themselves in a take-it-or-leave-it situation. In this circumstance a kind of Phillips curve relationship continues to hold but, after allowing for changes in the purchasing power of money, the direction of causation from the standpoint of unemployment is reversed.

The rate of unemployment ceases to be the independent variable and becomes the dependent variable. Instead of pay settlements appearing to respond to the conditions found in the labour market, as Professor Phillips hypothesised, it is the total amount of taxes on employment that determines conditions in the labour market.

UK experience during the second half of this century shows that when employment taxes are increased then, 12 to 15 months later, the rate of unemployment begins to rise. On those fewer occasions when employment taxes have been truly cut, then, 12 to 15 months later, the rate of unemployment begins to fall.

Whilst there have been times when some part of a temporary hump in the rate of unemployment may have resulted from a slowing down in the rate of inflation, the major part of the rate of unemployment always was, and continues to be, the direct result of employment tax policies pursued since World War II by successive governments at Westminster.

References

1. A. W. Phillips, *The Relation between Unemployment and the Rate of Change in Money Wage Rates in the United Kingdom: 1861-1957*.
2. Milton Friedman, *Unemployment versus Inflation: An evaluation of the Phillips curve*, p.15.
3. Adam Smith, *The Wealth of Nations*, Bk. I, Ch. VIII.

The Physiocratic Tradition

The Physiocrats thrived in France during the third quarter of the 18th century and they founded what may be considered as the first school of economic thought in the modern sense of that term.

They called themselves ‘économistes’ and acted as an organised group of thinkers who intended to influence the economic policy of their government. The name by which their school is known today is derived from a collection of writings by their master, François Quesnay. These were published in 1767 by Dupont de Nemours under the title: *Physiocratie, ou constitution naturelle du gouvernement le plus avantageux au genre humain*.

The designation Physiocrats (Greek *physis*, nature, *kratein*, to rule) did not, however, become current until the 19th century, and it calls attention to the emphasis the school placed on natural laws and the natural order. The importance of the physiocratic school in the context of this work is that they advocated the abolition of all taxation and its replacement by a natural source of public revenue.

The Physiocrats also stated that government should confine its expenditure to a limit determined by the public revenue naturally available, and not the complete reverse – the accepted wisdom of today – that the expected public expenditure should determine the level of taxation.

Every productive process involves the consumption of wealth in the production of new wealth and, as the Physiocrats recognised, the one ought to be deducted from the other in order to assess the difference. This difference measures the net increase of wealth produced which, since the time of the Physiocrats, has been known as the ‘net product’.

They argued, however, that only agricultural production had this unique power of yielding a 'net product'. Only when engaged in agriculture did a labourer reap more than he and his industry consumed throughout the year. Consequently, both commerce and manufacturing were classed as 'sterile'.

Sterile did not signify that these occupations were useless, but only that they were unproductive in the sense that no extra wealth was produced. They contributed nothing to the 'net product' as the wealth they consumed equalled the new wealth they produced.

An important gap in the Physiocratic theory was that they had no concept of value added. Indeed, value was rarely mentioned in their writings. Loaves of bread when exchanged for a ploughshare were considered to be of equal value, and the largest part, if not the whole, of the 'net product' produced by agriculture accrued, it was argued, only to the landed proprietors in the form of rent.

On this conclusion regarding the circulation of wealth, which was compared in importance to the discovery of the circulation of blood in the history of biology, rests the Physiocrats' proposal for the 'Impôt Unique' or single tax.

Public revenue and the theory of taxation forms a large part of the Physiocratic system and is one of the most characteristic portions of their work. Today it is common to ascribe many social problems to an unequal distribution of wealth, but the Physiocrats rightly emphasised the true source of injustice to be the burden of taxation, and formulated their advice to government accordingly.

General taxation, they argued, was a deviation from the 'natural order' which must result in a contraction of future output.

After the landed proprietors have deducted their 'net product', there is left to agriculture only the wealth necessary to maintain output. Should the cultivators of the soil be burdened in addition with taxation then there will be that much less capital for the land and this must result in a smaller gross product the following year.

They concluded that it is the landed proprietors who, one way or another, will eventually pay the tax.

Since commerce and industry produce no more than the wealth they consume, the imposition of a tax burden on them must reduce their consumption and limit their purchases of raw materials. The only escape from a diminished level of future production would be if the so-called 'sterile classes' were able to increase their prices by the full amount of the tax burden. Again, one way or another, they argued, the tax would be borne by the landed proprietors.

Given their system, the only available source of public revenue is the 'net product' and, to conform with the 'natural order', this must be collected from the landed proprietors.

The essential distinction between taxation and the Physiocratic 'impôt unique' is that while tax is of necessity arbitrary, the 'impôt unique' was regulated by a natural norm which gave the amount of the 'net product'.

The Physiocratic school calculated that 30 per cent of the 'net product' would be sufficient to cover public expenses. Dupont de Nemours emphasised that, if this proved to be insufficient, 'there is only one natural and reasonable conclusion to be drawn from this, namely, curtail the expenditure'.

Although the Physiocratic system has little in common with an advanced industrial trading economy and is not directly applicable, much of their work is of contemporary interest. This includes their argument that taxation inevitably either restricts future production, or leads to an increase in prices, and also that there exists a natural source of public revenue which in turn imposes a natural limit on government expenditure.

The first of these points is today a fact of common experience and may be deduced from the theory of Keynes, formulated more than a century and a half later. The second probably provides the only certain method of restraining spendthrift modern governments by imposing upon them the basic discipline of living within their income, as is the case for the private sector and all private persons.

Of equal interest is their demonstration of the special nature of the income from land and their proposal for a single tax.

This latter concept of a single tax was expounded in the context of an industrial trading economy, and apparently without any prior knowledge of the earlier Physiocratic work, in the second half of the 19th century by the American, Henry George, who left behind him a worldwide single tax movement which continues today with centres in most countries and regular international conferences.

Henry George

Like the physiocrats, Henry George stressed the natural order of things and was, in addition, more concerned with the quality of life and the environment than many of the environmentalists of today.

The idea that the environment is a common heritage for future generations was fundamental to his work. He is best known today for *Progress and Poverty*, first published in San Francisco in 1879. It remains an all-time best seller on the subject and was sub-titled: *An inquiry into the cause of industrial depressions and of increase of want with increase of wealth – the remedy*. For Henry George, the remedy was simple and practical: ‘abolish all taxation save that upon land values’.¹

Like all great works of political economy it was directed at a public issue of topical importance at the time of writing. An earlier example of this was Ricardo’s formulation of the theory of rent, which provided the theoretical support for his argument that the high price of corn was not caused by the high price of corn-land, but on the contrary, that the then high price of corn-land resulted from the high price of corn. For Ricardo, corn was a synonym for wheat and the prevailing high price of wheat was, in the UK, an important public issue at the beginning of the 19th century.²

Similarly in the 20th century Keynes was writing for his time when he argued in his *General Theory* that supply could not be relied upon always to create its own demand. During the inter-war years of the depression the continuing deficiency of aggregate effective demand was a public issue of international importance.³

Henry George was concerned to demonstrate that the growth of population, especially the growth of densely populated cities, is not of necessity always associated with ever increasing poverty: an important public issue in his time, which remains very much with us today. The pessimism of the then authoritative arguments based on the assumption of the niggardliness of nature was not for Henry George. 'It is a well provisioned ship', he wrote, 'this on which we sail through space'.⁴

Although a contemporary of Alfred Marshall, Henry George remained a Ricardian. He considered, for example, that: 'as to the law of rent there is no necessity for discussion'.⁵

This did not prevent George from recognising that Ricardo's theory of rent failed to explain fully the rapid growth in the rent, or price, of land in a developing trading economy such as the United States in the late 19th century. He accepted the then orthodox view that the cause of the rapid rise in rent was increasing population, but concluded also that Ricardo's explanation, the lowering of the margin of cultivation, was of minor importance.

Of major importance, George concluded, was that an increasing population brought out in land special capabilities otherwise latent, and attached special capabilities to particular lands.⁶

The exposition by which he arrived at this non-Ricardian conclusion can shed much light on contemporary issues of public finance. George begins by supposing a first immigrant arriving in an unbounded savannah every part of which is equally fertile.⁷

This supposition is of importance for George's argument for it precludes any possibility of rent arising in accordance with Ricardo's theory. An increasing population cannot be the cause of lowering the margin of cultivation in an unbounded savannah every part of which is of equal fertility. The first immigrant would settle, George supposed, somewhere by chance, but the subsequent immigrants would be attracted to the lands as near as possible to the first settlement. He observes with St. Thomas Aquinas that man is gregarious by nature, but carries the observation further.⁸

Not only would they do this in the expectation of enjoying a better quality of life arising from social intercourse, but also in the expectation of enjoying material gains as a result of one settler co-operating with his neighbours on particular tasks. Also, as the new settlement grew, George noted, there would very soon arrive a specialist blacksmith, a wheelwright, a store, and so on.

For reasons of business these specialists would be attracted to central locations. Every settler would gain advantage from having these services provided locally, but the first immigrant, being handily located at the centre already, would gain more than those later immigrants located at the periphery, which by this time might be relatively far off. As George put it, land at the centre of the settlement 'begins to develop a productiveness of a higher kind'.⁹

Thus the value of the first immigrant's land will now begin to increase relative to that of later immigrants, not from any lowering of the margin, but from the margin of production being raised. This increase in value George called 'rent'. As the population grows the process continues and the settlement becomes a village, the village a town and perhaps eventually a great city.

The farmers, argued George, may move on, but the specialists must remain at the centre of exchanges to be viable. Eventually the land of the first immigrant, now being located at the centre of a thriving community, becomes so valuable as to enable him to lease or sell his land and retire as a very rich man.

As rents and the price of land increase, so the proportion of the wealth produced going to capital and to labour diminishes – hence George's title, *Progress and Poverty*.

Mindful of the important social and political issues of his day, Henry George emphasises in his savannah story the association of increases in population with the growth of the income which he called rent, and the consequent extremes of wealth and poverty.

But such an association, however well proven, does not imply causation in either direction. The demonstration that it is only after population has grown to a particular size that the price of land is

greatly enhanced is not sufficient grounds for concluding that the population growth is the cause of the enhanced price of land, or that the enhanced price is dependent solely upon this growth.

Today George's story is instructive more for what he failed to observe than for what he actually did observe. For example, the story begins with a settlement of neighbourly and self-sufficient farming households co-operating one with another but trading only what happens to be surplus to their household requirements.

With the arrival of the blacksmith and the other specialists, a fundamental change takes place. The settlement of self-sufficient farming households is changed over time into a *trading* economy.

The various individual enterprises no longer produce an output primarily for their own subsistence but in part, and in certain cases wholly, for the purposes of trade. George takes no account of this fundamental change. Again, George, like Ricardo, fails to observe the necessity of an *effective demand*. What causes the blacksmith and the other specialists to set up in the new settlement is not the population size, but the existence of an effective demand for their services and products at least sufficient to yield them a living.

Size and density of population may be a rough indicator of the existence of an effective demand for certain services, but the one is not of necessity positively linked to the other.

More important is that, even given the initial effective demand, an embryonic trading community will not grow automatically into a town or a great city as George supposed. If trade and industry are to flourish within a community, then certain expenses must be incurred to provide the *public services* required by those living and working at particular locations.

The development of the 'higher kind of productiveness' of land, as Henry George called the manifestation of locational advantages, will not take place if Main Street is allowed to remain a lawless quagmire, and the whole area remains bereft of all public services.

Under such conditions, the locational advantages of operating at the centre, or at any other part of the community, might disappear

completely, with both trade and industry soon departing for other centres where public expense is incurred to provide the necessary public services. The population would follow the jobs.

George failed to note that the rise in the price of land at those sites enjoying locational advantages is in fact a measure of the effective demand for public services. Although he recognised that in the circumstances he supposed, the rise in the price of land had nothing to do with the productiveness of the soil, the dictates of Ricardian economics obscured from him the actual cause, and led him to conclude the rise to be a different mode of Ricardian rent, manifested when increasing population brought out other natural gifts otherwise latent in the land.

References

1. Henry George, *Progress and Poverty*, Bk. VIII, Ch. II.
2. D. Ricardo, *Principles of Political Economy and Taxation*, Ch. II.
3. J. M. Keynes, *The General Theory of Employment, Interest, and Money*, Ch. II.
4. Henry George, *op. cit.* Bk. IV, Ch. II.
5. *Ibid.* Bk. III, Ch. II.
6. *Ibid.* Bk. IV, Ch. II.
7. *Ibid.* Bk. IV, Ch. II.
8. St. Thomas Aquinas, *On Princely Government*, Bk. I, Ch. II.
9. Henry George, *op. cit.* Bk. IV, Ch. II.

8

Neo-Classical Arguments

The imposition of taxation ensures that a community as a whole is forced to pay for whatever public goods and services government in its wisdom may decide to provide.

At the macroeconomic level it may be argued that taxation is a justifiable imposition. At the microeconomic level, however, the sum exacted from the individual taxpayer is unrelated to the public benefits received by that taxpayer. Thus, given the principle of private property, taxation can be justified only as a macroeconomic solution to the need for public revenue. It lacks microeconomic foundations, as the individual taxpayer does not receive the public benefits paid for through taxation by that individual.

The basis of the argument in favour of redistributive taxation is that it ensures some members of the community pay more while others pay less, or nothing at all, for public benefits. Redistributive taxation is a crude attempt to rectify the distribution of wealth that results inevitably from government's own failure to conform to the principle of private property. Results cannot be mitigated while causes are allowed to remain.

Reality is obscured further by the operation of a tax system which is intended, in accordance with the 'ability to pay principle', to introduce a measure of so-called 'fairness' between individual taxpayers. Within the limits of practicality governments may try to establish a positive relationship between the amount of taxation exacted from an individual taxpayer or corporate body and their pre-tax net private income. Such good intentions of governments are thwarted at the outset. It is apparent that individually taxpayers are not at all amenable to the imposition of taxation; all react to the

impact of a tax and, where possible, shift the incidence; some take steps to avoid the tax legally while others attempt illegal evasion.

A primary cause of the so-called 'black economy' is the reaction of individuals to taxation. Yet the imposition of taxation is now universal and, lacking the knowledge of any alternative source of public revenue, is accepted by taxpayers as a necessary evil.

The macroeconomic solution of funding public spending out of tax revenue is accepted by the contemporary economic orthodoxy as a self-evident truth. The possibility of an alternative solution has vanished from orthodox economic thought and its literature.

The Macroeconomic Case

The macroeconomic solution to the question of public finance was put forward explicitly by the economist Enrico Barone in the early part of this century.¹

First, he defined what he described as 'public needs' as being whatever a government happened to provide 'in any country at any time'. Thus, according to his definition, the extent and content of 'public needs' is not necessarily determined by economic factors; in certain countries at certain times the determining factor might be, for example, the prevailing political ideology.

Barone then proceeded to distinguish between two categories of 'public needs' which he defined as: 'those which are, and those which are not, susceptible to individual and specific demand and divisible supply'.

Public needs of Barone's first category, being 'those which are susceptible to individual and specific demand and divisible supply' are not, he argued, of necessity to be supplied by government, for they can be supplied by the private sector at 'economic prices'.

According to Barone an economic price may be an open market price, or a monopoly price, or a price agreed in some other way. In today's terms 'economic prices', however agreed, may be taken to be current selling prices at a level a producer expects will yield a

net income sufficient to cover the full supply price including a minimum profit. While Barone accepted that goods and services included in this first category of public needs could be provided by private enterprise, he admitted that some might with advantage be supplied by government.

The second category of public needs, which Barone defined as ‘those which are not susceptible to individual and specific demand and divisible supply’, may be interpreted as being those goods and services which Adam Smith referred to as the ‘necessary expenses of government’.

Such goods and services are necessary for the efficient working of a trading economy but, as Barone highlights, it would seem that the ordinary mechanisms of the open market cannot automatically translate this ‘public need’ into effective demand, to which private sector firms can respond.

From the point of view of a private sector producer, not only is the supply indivisible, but there is no identifiable buyer with whom a bargain may be struck in the expectation of receiving the full supply price, including a minimum profit. In these cases, Barone stated, government initiative is required.

If government is to take this initiative then clearly it must be able to command a sufficient public revenue to cover the necessary expense involved.

To Barone, as with most other writers on public finance, public revenue automatically meant tax revenue. Following the orthodox line he therefore assumed the imposition of taxation to be justified by economic necessity.

As it is impossible, according to his definition, to finance the second category of ‘public needs’ by individual pricing (‘economic prices’), then they must be financed by taxation (‘political prices’).

To provide for the second category of ‘public needs’ he asserted that governments have no alternative but, by means of taxation, to distribute coercively the total cost of their provision throughout the community according to an individual’s income.

On this assertion of there being ‘no alternative’ rests the entire macroeconomic case for the imposition of taxation.

Barone went on to assert that ‘private persons do not demand public goods’ – an assertion that simply does not follow from his definitions. There may be no ‘individual and specific demand’ for armed nuclear submarines, but this is not to say that collectively private persons do not in fact demand such weapons as a way of providing the community with an adequate means of defence.

This assertion led him to argue firstly that the size of the supply of public goods is determined by a majority, making its decisions through a form of voting. In turn, the size of the supply of public goods and services decided upon by a majority vote determines the amount of the tax to be imposed and distributed between taxpayers ‘according to established principles’.

This line of reasoning led Barone to conclude that ultimately the size of what today is called the public sector is determined by the majority, only within the limits set by the amount of taxation individual taxpayers are prepared to accept as tolerable.

More recently Professor Prest, writing on the same subject, has echoed Barone by stating that: ‘the very bareness of the economic principles set forth will make it clear that we are on the borderland where economic and political considerations meet and mingle inextricably with one another’.²

This ‘bareness of the economic principles’, Professor Prest then concluded, leads modern economists to seek a political solution by trying to devise appropriate principles of majority voting. Thus, by assuming that public revenue is always and inevitably tax revenue, writers on public finance have been led to pose questions that their science is not equipped to answer.

Although the drift of Barone’s arguments has led economists into realms outside the scope of economic analysis, this difficulty should not be allowed to obscure his significant contribution to the understanding of public finance.

Arguing exclusively from economic grounds, he shows that the

private sector and market forces cannot provide in every case all that is necessary for the efficient working of a trading economy.

If the goods and services included within his second category of 'public needs' are to be provided at all, then government initiative is necessary. Thus, by isolating on the basis of economic criteria a category of 'public needs' that can be met only as a result of government initiative, Barone comes up against the question of public revenue.

He answers this question with an unsubstantiated assumption which orthodox economics accepts as a self-evident truth; but drop the assumption, and one is led to a clear statement of the important issue that needs to be investigated.

How is government to command the public revenue required to fund these necessary initiatives?

Writing a little earlier than Barone, the French economist Paul Leroy-Beaulieu also pointed out that there are 'many cases where private initiative cannot take the place of governments'.³

He used this argument, not only to justify the imposition of taxation, but also to argue against the reduction of taxes in certain circumstances. 'Let no one say', he insisted, 'that citizens would take care of these matters if government, instead of imposing excess taxation upon them, left them with the money of which this excess taxation deprives them.'

With this statement Leroy-Beaulieu may seem to be heralding the post World War II demand-side school of thought, but it has to be remembered that he considered any tax take in excess of 12 per cent of private incomes to be exorbitant. Nonetheless, his view is topical to the extent that it conflicts with the policy prescriptions of the now dominant supply-side school of thought.

Supply-side economists seem to have reverted for inspiration to the 'golden maxim' of Jean-Baptiste Say: 'the very best of all taxes is that which is least in amount' – a maxim of immediate appeal to taxpayers and therefore to politicians in their attempts to attract the votes of their electorate.⁴

The Railway Example

By way of an example of the necessity for government initiative, Leroy-Beaulieu took the then topical case of a new branch railway which exerts a beneficial influence over a very wide area.

The difficulty facing a privately-owned railway company is, he pointed out, that many of the beneficiaries from the enterprise will not use the railway and so will not contribute to its supply price.

Some traders will use the new branch line to carry their goods to other less congested markets and so will contribute through the cost of carriage. The net financial benefit they receive is measured by the higher selling prices obtained less the cost of carriage to the new market.

Other traders, however, would continue to use only their local market which, being less congested than before the new branch line was constructed, would be also now yielding better prices. For these traders the gross financial benefits bestowed by the branch railway accrue as a free gift from the owners of the line.

‘This is why’, concluded Leroy-Beaulieu, ‘many public works cannot be carried out for private account; they would ruin private entrepreneurs, while being highly remunerative for society as a whole’. However, in the tradition of orthodox economics, he used the argument that private enterprise cannot in every case replace government initiative to support the imposition of taxation.

He did not consider the possibility of an alternative source of public revenue that in practice would charge all beneficiaries the current market price for the financial benefits each received from the existence of the branch line, apart from whether any particular individual beneficiary actually used the branch line or not.

The example of a new branch railway used by Leroy-Beaulieu provides a better illustration, and is brought into a sharper focus, when the distinction is made between the fixed or capital costs of constructing and maintaining a railway system and the variable or running costs of providing the actual services over that system.

Running costs may be attributed to those who actually use the services provided and, for this usage related element of the total supply price, the supply is to some extent divisible. For this element also there is an identifiable buyer with a specific demand and an identifiable seller. The two parties, the buyer and the seller of the railway services, can in the ordinary way strike a bargain from which each expects to gain an advantage.

The top limit, determined by the buyer, is the benefit the buyer expects to receive as a result of his using the service; in Leroy-Beaulieu's example this is due to higher selling prices prevailing in the less congested markets. The bottom limit, determined by the seller, is the additional supply price of providing the actual service demanded.

The running costs of providing railway services over an existing system fall therefore into Barone's first category of 'public needs'. They are not a necessary government expense to be covered by what Barone called a 'political price' (i.e. taxation), for they can be covered by 'economic' or market prices. Admittedly in certain circumstances, as Barone argued, the case may be made that it is advantageous for railway services to be supplied within the public sector and then charged to railway users at the current market price of those services.

The capital cost of building and maintaining a railway system, on the other hand, creates no more than the potential for providing a railway service. The benefits, positive or negative, arising from this potential will accrue to those who live, work and trade within the catchment area of the services provided over the system.

The more the system is used and the better the service provided throughout the system, the more its potential will be realised with advantage to the whole community.

Yet while a community may demand a railway system, there is an individual and specific demand only for the services, and not for the system as such: and hence, the supply of a railway system is not divisible. The system creates a potential that may be realised

through the provision of services, but a railway system without any services is worth little more than scrap value. Thus, in the case of the cost of constructing and maintaining a railway system, market forces cannot operate in the ordinary way to ensure a sufficient financial return directly through the process of individual bargains.

Where there exists an effective demand for railway services, then the capital cost of providing the system falls into Barone's second category of 'public needs' to be met out of public revenue.

Interestingly, the United States of America attempts to run its railway passenger services in complete contradiction to the clear implications of Enrico Barone's categories. The railway passenger services are a government service, supported by public revenue, yet run across privately-owned railway networks. When compared to British Rail the result is a disaster.

A railway company, or any similar enterprise, whether private or government owned, basing its charges to its customers on the expectation of covering its *total* supply price, including both fixed and variable costs, will find itself locked into a descending spiral, leading to the need for a substantial subsidy from public funds in order to avoid bankruptcy. The high charges will deter potential customers and thus necessitate further price increases. As prices rise and usage declines the capital investment will become grossly under used and apparently uneconomic, such that everybody loses.

To maintain such an enterprise out of tax revenues, either directly, or through a subsidy given to a privately owned company, is akin to cutting off the head of a hydra. By its very nature a tax, properly so-called, does not and cannot equate the amount paid by an individual taxpayer to the public benefits actually received by that taxpayer. Some members of the community are thus forced to contribute more than they receive while others receive more than they contribute.

When any government-owned enterprise is wholly or partly financed from tax revenue, it is inevitable that some are forced to pay in excess for external economies (public benefits) which may

or may not be available or required by them, while to others the same external advantages accrue as a free gift.

These circumstances must, in time, result in an ever increasing maldistribution of income and wealth within that community, and all the distortions, injustices and tensions concomitant with such a condition. In certain cases the market, unaided, cannot ensure that the private sector provides all the goods and services necessary for the efficient working of a trading economy. Nonetheless, to rely on tax revenue as a source of finance in those specific cases requiring government initiative multiplies the problems to be resolved.

The market is the main distinguishing characteristic of a trading economy, and the basic mechanism of a market is the process of bargaining. Trade may flow between countries, and markets may be international, but the process of bargaining takes place between an individual buyer and an individual seller. The outcome of the bargaining process determines the market price.

When there appears to be no individual buyer with a specific demand and when the supply is indivisible, then a direct process of bargaining is precluded and the market cannot give the necessary price signals to producers in the ordinary way.

When this applies to the goods and services necessary for the efficient working of a trading economy, then public initiative must act in place of private initiative. It is self-evident, therefore, that as private initiative incurs a private expense to be met out of private income, so public initiative properly incurs a public expense to be met out of public revenue.

Thus far Barone, Leroy-Beaulieu and other writers at the turn of the century made the case very clearly and contributed much to the advancement of public finance theory. They all assumed, however, that the expense incurred by public initiative leaves government with no alternative but the imposition of taxation. This assumption obscured the importance of their other contributions.

As later writers on public finance have mostly taken the same assumption as an axiom, the issue has remained unresolved.

Alfred Marshall's Contribution

In his major work *Principles of Economics* Alfred Marshall did not treat the issues relating to public finance as a separate subject for discussion. The system of local rates is given an appendix to itself, but while taxes are considered in a number of places, this is by way of illustrating the particular subject matter being investigated.

This approach has tended to obscure Marshall's most important contribution to the understanding of public finance and contributed to it being ignored by later specialist writers. In Chapters X and XI of Book V, in particular, he provides evidence of a link between public outlay and effort and the current market price of land. These two chapters shed much light on those cases which Barone argued, for example, require 'public initiative' to be charged at a 'political price'. Marshall, in fact, argues that public work and outlay creates external economies which then become apparent in the enhanced value of land.

Further, in his two chapters on marginal costs, Marshall rejects, by implication, the applicability of the Ricardian theory of rent in determining the market price of land in a trading economy.⁵

He argues that in a trading economy what makes land in general rich, or valuable, is determined by the extent of the opportunities which the occupation of a given site is expected to grant to its occupier for the time being. When dealing with agricultural land, Marshall states these external economies to be largely the 'product of growing *public prosperity*' (italics in the original).⁶

This led him to distinguish between the 'private value' and the 'public value' of land. What he calls 'private value' is that part of the net annual value of land which is the result of the landowner's or occupier's work and outlay. The net annual value of land after the deduction of 'private value' he calls 'public value'.

Thus, according to Marshall, the annual value of land, 'private value' plus 'public value', is produced wholly or largely by human work and outlay, and therefore it cannot be determined by the

Ricardian theory of the rent of land. (In the Ricardian sense ‘rent’ arises from ‘the original and indestructible powers of the soil’, and that which is both original and indestructible cannot be produced by human endeavour.)⁷

However, having distinguished between the ‘public value’ and the ‘private value’ of land, Marshall did not use his newly defined terms exclusively. He went on to state that the ‘annual value of land’ could be called the ‘true rent’, so obfuscating the issue by reintroducing Ricardian associations.

It would seem that Alfred Marshall himself was confused by the Ricardian associations of the term ‘true rent’ when considering the effects of ‘a special tax on the annual public value of land’.⁸

He argued that a ‘special tax’ levied on the ‘true rent’ would deter landowners from making any further outlays to improve the methods of cultivating their land – outlays which developed the latent resources of the soil in the expectation of a net return in excess of normal profits. The excess return would be, concluded Marshall, a ‘true rent’ and subject therefore to the ‘special tax’.

While a return on the latent resources of the soil might well be classed as a ‘rent’ in the Ricardian sense, it cannot form part of the ‘annual public value’ or the ‘true rent’ as defined by Marshall. The excess returns expected by the landowner are the direct result of an outlay by that landowner on improvements in the various methods of cultivating his land. That these improved methods developed the latent resources of the soil is immaterial.

Thus, according to Marshall’s first definitions, the supposed outlays cannot increase the ‘annual public value of land’ but only its ‘private value’. This being so, the expected excess return over normal profits would not be subject to the ‘special tax’.

In fact the outcome is likely to be precisely opposite to that anticipated by Marshall. A ‘special tax’ when levied on the ‘annual public value of land’ will encourage rather than deter landowners in making outlays on direct improvements to their land.

For a time the innovator, having monopoly of an improvement,

would expect to enjoy as a private income an additional net return on the outlay in excess of normal profits.

This provides the carrot for such innovation, and market forces would provide a stick for the competitors. They would be driven to follow suit, or to risk becoming uncompetitive and as a result lose market share or even go out of business.

As the improvement became general usage then competition in a free market would erode the excess net return and, in the longer run, lead to the benefits flowing to consumers in the form of lower prices, or better quality, or some combination of the two.

In his chapter on ‘marginal costs in relation to urban values’ Marshall provides further evidence of a link between public effort and outlay and the current market price of land. Unfortunately, he once again obfuscates his contribution by multiplying terms.⁹

He uses the term ‘situation value’ to cover the money value of the net advantage, enjoyed by the occupier of a particular site, resulting from the external economies and diseconomies created by the ‘general progress of the industrial environment’. The extra annual income that can be earned by the occupier of land having a ‘situation value’ he called ‘situation rent’.

The ‘situation value’ of a particular site to any given industry, including agriculture, is, he argued, the excess money value of the site over its ‘agricultural value’. The ‘agricultural value’ of land he took as being the value of the free gifts of nature to be enjoyed by the occupier of that land.

This led Marshall to define ‘aggregate site value’ as ‘situation value’ plus ‘agricultural value’. He took ‘aggregate site value’ to be the current market price of land after allowing for any direct improvements made on that land – in the case of building land the current market price of a cleared site.

That the greater part of ‘situation value’ is in fact ‘public value’ Marshall considered to be obvious, although his various definitions and his multiplicity of terms caused him to admit to a number of exceptional cases.

These exceptional cases arise where ‘situation value’ has been produced by private outlay and effort only and is, therefore, to be considered as ‘private value’.

When dealing with these exceptional cases of ‘situation value’, Alfred Marshall, like Leroy-Beaulieu, also considered the effects of constructing a new railway, at the time very much a topical issue. Marshall’s purpose was not related to public finance, but to the question of whether any resulting increase in ‘situation value’ should be classed as private profit or ‘public value’.

He argued that whenever a group of landowners used their own combined funds to finance the construction of a new railway line which was not expected to yield any great return directly, then any income arising from the increase in the value of their lands should be regarded as a private profit – an exceptional case where an increase in ‘situation value’ enhanced ‘private value’ and not the ‘public value’ of land.

From this example he concluded that all cases where the owners of land invested their capital, not in direct improvements to their land, but to fund enterprises which they expected would make external economies available to the occupiers of their land and thereby increase its value, should be regarded as exceptional.

What Marshall did not consider was the case of an owner of land within the catchment area of a new railway line, or similar enterprise, who decides not to contribute funds to that enterprise. Economic forces cannot discriminate between the land owned by a contributor of funds to some new enterprise and the land owned by a non-contributor of funds. If the values of some parcels of land falling within the influence of a new enterprise are affected, then the values of all parcels of land within that sphere will be affected – an aspect of indivisible supply determining Barone’s second category of ‘public needs’.

Thus, in the case of a non-contributing landowner, the increase in the value of the land, resulting from the availability of external economies created by some new enterprise, must accrue to that

landowner, not as profits on capital invested or 'private value', but as a free gift from those who have invested their capital in the new enterprise – as 'public value' not 'private value'.

As Marshall did not consider the case of non-contributors, he did not consider, as did Leroy-Beaulieu, the possibility of such enterprises, although advantageous to the community as a whole, proving ruinous to private entrepreneurs due to their inability to charge all those benefitting from their outlay and enterprise. Had he considered all the possibilities, he may have seen the need to redefine 'public value' and 'private value' relative to what he now called the 'situation value' of land, thereby contributing even more to the advancement of economic science.

In the same chapter Marshall wrote, 'any increase in the net income derived from the free gifts of nature which was not brought about by, and did not supply the direct motive to, any special outlay on the part of the landowners is to be regarded as rent for all purposes'. Again Marshall confuses the issue by substituting terms with Ricardian associations; but even so this qualification does not cover the case of the non-contributing landowner set out above.¹⁰

The non-contributing landowner is the recipient of an increase in net income derived, not from a free gift of nature, but from a free gift of the external economies made available by the work and outlay of other members of the community.

What Marshall had stated in the preceding chapter is applicable to the immediate issue. 'Barren heath land', he explained, 'may suddenly acquire a high value from the growth of an industrial population near it: though its owners have left it untouched as it was made by nature'.¹¹

In this instance he stated explicitly that this increase in the value of land is produced by 'the actions of men, though not of its individual owners'. Since this value of land is produced by the actions of men it cannot give rise to a 'rent' in the Ricardian sense and so Marshall classed it as 'public value'. From the barren heath land example it must follow that any increase in the value of land,

resulting from some enterprise to which the owner of that land is a non-contributor of funds, must be classed as 'public value'.

From the aspect of public finance Marshall's work on marginal value is confusing and tends to obscure his important contribution to the subject. Nonetheless, he shows that in those cases where, apparently, supply is indivisible, the money value of that supply, or its supply price, is manifested in the enhanced value of land.

This comes about because the actual supply produces external economies, or benefits, to the occupiers for the time being of particular sites. In the first instance these accrue to the occupier for the time being as a free gift, but, given private property rights over land, upon the sale of those rights or the renegotiation of the rent the money value of the advantages pass to the land owner.

Thus, the second category of Barone's 'public needs', which he stated as being 'not susceptible to individual and specific demand' is shown by Marshall to be susceptible, albeit in a roundabout way.

At the time a particular site is sold or the rent is renegotiated, there is an individual seller and the otherwise indivisible supply is, in effect, divided. At the same time there is an individual buyer, purchaser or tenant, with a specific demand for the advantages that accrue to an occupier of that particular site. These two parties, the buyer and the seller, or landlord and tenant, in the normal way strike a bargain which determines its current market price. At this price both parties to the bargain expect to gain an advantage.

Alfred Marshall's contribution thus advances the work of Henry George and in terms of neo-classical economics shows how market forces operate to cause the value of public work and outlay to be reflected in the current market price of land.

References

1. Enrico Barone, *Giornale degli Economisti*, April/May 1912.
2. A. R. Prest, *Public Finance in Theory and Practice*, Ch. 3, p.65.
3. P. Leroy-Beaulieu, *Traité de la science des finances*, Vol. II, Bk. II.
4. Jean-Baptiste Say. *Traité d'économie politique*, Bk. III, Ch. VIII.
'The best scheme of finance is, to spend as little as possible; and the best tax is always the lightest.'
5. Alfred Marshall, *Principles of Economics*, Bk. V, Ch. X & XI.
6. *Ibid.*, Bk. V, Ch. X.
7. D. Ricardo, *Principles of Political Economy and Taxation*, Ch. II.
8. Alfred Marshall, *op. cit.* Bk. V, Ch. X, para. 4.
9. *Ibid.*, Bk. V, Ch. XI.
10. *Ibid.*, Bk. V, Ch. X, para. 1.
11. *Ibid.*, Bk. V, Ch. X, para. 4.

9

Public Revenue

As argued explicitly by the Physiocrats and Henry George, and as may be deduced from the works of Alfred Marshall and others, the market price of land is the key for collecting public revenue as an alternative to an arbitrary levy such as taxation. What appears to be the market price of land is in fact a measure of the market price of those goods and services which Barone defined as ‘not susceptible to individual and specific demand and divisible supply’.¹

In common usage it is usual to refer to the owners of land, or to landowners, but the law of England, for example, provides a more precise terminology. What is owned is not the land as such, but the freehold property rights over the land in question. Those persons commonly referred to as landowners are in practice freeholders, for what they own are freehold property rights over land.

The current market price of these rights over land is the sum of two distinct parts which may be called, following Marshall’s line of argument, their private value and their public value. Marshall’s definition of private value proved, however, to be too wide and this led him into difficulties when he came to define ‘situation value’.

Given vacant possession, the private value of a freehold is that part of its market price a willing buyer will pay a willing seller for all the improvements resulting from the work and outlay directly on that land by the succession of freeholders and occupiers.

These improvements are properly called private value as firstly, in the nature of things, they ultimately fall into the possession of the freeholder for the time being, and secondly, the enjoyment of this property right by the freeholder conforms to the principle of private property.

By definition, either the private value has been produced by the present freeholder's work and outlay or, in the absence of evidence to the contrary, it is to be presumed that the freeholder has received it by way of gift or fair exchange from those who did produce it.

Any income yielded by private value, either in cash or in kind, is a private income. It is a private income since it is the return on the freeholder's investment of work and outlay carried out directly on the land over which freehold property rights are enjoyed.

Where the investment has been made by an occupier who is not the freeholder then, depending on the precise terms of the tenancy agreement, the return may be the private income of that occupier until such times as a new bargain is struck.

The presumption of title to the private value in favour of the freeholder may be objected to on the grounds, as Mill argued, that the ownership of land does not of itself conform to the principle of private property.²

The substance of this argument is that no person can show they produced land or provide evidence that they received it by way of gift or by fair exchange from whoever did produce it. Even if the validity of Mill's argument is accepted, the objection does not hold in the present context.

The private value of freeholds is produced over the years by the work and outlay of private persons or corporate bodies; titles pass in good faith from seller to buyer through to the freeholder who for the time being enjoys possession. The fact that in times long past freehold titles may have been obtained by conquest or by fraud is immaterial. While the original acquisition may have been wrong, the revival of a claim long dormant will cause a further wrong, and for this reason most countries impose a legal time limitation.

On these grounds it is equitable to presume that in the absence of recent evidence to the contrary, the present freeholder has title to the private value attached to the land over which the freehold property rights are enjoyed. The same presumption applies to any income that may be generated by private value.

In conformity to the principle of private property, a government has no right to impose a tax on the private value of a freehold or otherwise appropriate any part of it by force or fraud.

Indeed, a government has a duty to uphold and secure to private persons and corporations the full enjoyment of the private value of their freeholds. This duty applies with equal force to any income generated by the private value of a freehold, for this is a private income. To enforce the payment of a tax on private value or private income as if it were a debt is to obscure the nature of the original wrong, namely, the imposition of the tax.

The public value of freehold property rights over land is that part of its current market price a willing buyer is prepared to pay a willing seller for the net *external* economies, advantages and other benefits an occupier expects to gain from the occupation and use of that land. Thus, this definition of public value is precisely what Marshall called ‘situation value’, and stands in contrast to the use of the term ‘*directly*’ when defining private value above.

Alternatively, public value is the market price of a freehold less its private value. It is the actions of the community as a whole and, in particular, the provision of public goods and services by public authorities that produces the public value of a freehold.

In a developing country an embryonic trading centre may grow to become an important city where, as Henry George argued, and as experience confirms, property rights over land change hands for very large sums of money.

This will happen, however, only providing the necessary public expenditure is incurred on such things as metalled roads, sewerage, drainage, water supplies, street lighting, law and order and so on.

Should this necessary public expenditure not be forthcoming, then the embryonic trading centre will soon atrophy for reasons of mud, disease and lawlessness.

The high prices paid today for sites in major cities reflect their high public value produced largely at public expense. An example of this was featured in *The Times* newspaper on 7th October 1986.

The newspaper article listed the Aylesbury Grammar School, a free state school, among the top twenty boys' schools in England and then noted: 'House prices in the area pushed up as a result of parents moving into orbit'. The enhanced house prices are in fact a measure of the increase in public value produced by a high quality state grammar school within its catchment area.

There is a specific demand for good education and in the market place most parents who can afford to do so are prepared to pay the necessary price. Some of these parents will pay the price as fees to independent schools, while others are willing to pay for good 'free' state education through enhanced house prices.

In cases such as this, both law and fiscal policy allow the public value to accrue to the seller of the freehold, and then to pass into the hands of the buyer, as if it were private value.

The British government has announced that the capital and environmental cost of constructing the high speed rail link between the Channel Tunnel and the North is to be passed on to the users of that rail link. The rail link is forecast also to raise property prices significantly throughout its catchment area. By treating the public value as if it were private value, the government will force users of the rail link, through higher charges, to make a free gift of windfall profits to the fortunate existing freeholders. This policy must result in both higher charges, and a lower demand for the service, to the detriment of the community as a whole.

Both the private value and the public value of a freehold are produced over time by the work and outlay of people and, like all products, may be destroyed. Thus as neither value is 'original and indestructible', neither can give rise to a rent in the strict Ricardian sense of that term. However, both private value and public value may give rise to a rent in the modern economic sense of a surplus over and above transfer earnings of a factor of production which is, during a given time period, in fixed supply.

The improvements which give rise to a private value and the externalities which give rise to the public value both take time to

produce, and during this time they may be considered as being in fixed supply.

Those enjoying already existing improvements, and those who occupy locations benefitting from the already existing externalities may during the limited production period receive such a rent in the sense of an income in excess of transfer earnings of the particular factor in fixed supply.

Again, both the private value and the public value of a freehold may give rise to a rent in the common usage of that term as a hire charge. For example, a regular payment or hire charge for the flow of benefits and advantages expected to be received, including the additional income expected to be earned from the occupation of a particular site having a certain public value, may be called a rent.

However, in economics the usage of the term rent in the context of the private and public value of freehold property rights over land is likely to be confusing if not misleading. The work of Alfred Marshall is one example of being led into error by the Ricardian associations of the term rent.

As has been argued, the income generated by private value is a private income, whereas the regular payment that a willing buyer may be expected to pay to a willing seller for enjoying, through the occupation of a particular site, the various economic externalities reckoned as public value is rightly described as a *public revenue*.

This description conforms to the principle of private property, for public value is produced by the public in general, and by their public authorities in particular, and so the income generated by these actions is a public revenue. Government has a duty to the public to collect this revenue on their behalf.

The Question of Land

No amount of work or outlay will produce land and, therefore, land of itself cannot have a private or a public value. Both these values are produced by the actions of people.

Land falls into that category Marshall calls 'free gifts of nature' and, providing government performs its public duty by collecting public revenue, *land is a free good*.

It may be argued that in the case of reclamation schemes land is produced, but this argument ignores the fact that the land itself was already there. The work and outlay put into reclamation schemes does no more than transform land formerly covered by seawater into dry land. Depending on circumstances, the freehold property rights over this dry land may have a private value, a public value, or a combination of both.

Again, the sun, sand and beauty of Spain's Mediterranean coast has existed for thousands of years, yet for most of that time the region was impoverished and property rights over land worth little or nothing.

The relatively high prices of these property rights today is not nature's free gift to the owners of those rights, but is a gift from those whose work and outlay has contributed to the prosperity of Northern Europe, to advances in transportation and the building of roads and airports, and the provision of all kinds of public services.

It is this work and outlay that has produced both the public value and the effective demand, by giving to many thousands of people the opportunity of enjoying a Mediterranean holiday. The increase in the public value has also made it profitable to increase private values, and it is these two combined that has so greatly enhanced the prices of property in most parts of the region.

Land is different from natural resources. Although there are similarities, the differences between the two are important.

Both land and natural resources are produced, so far as their physical composition is concerned, by nature without human effort and remain in their natural place in the universe, but there the similarity ends. To be classified as a natural resource the location of that resource must be known and, although it may remain for the present unused in its natural place in the universe as a reserve, there must exist, or be expected to exist, an effective demand.

For example, there does exist today an effective demand for oil and thus known oil reserves are natural resources. In former times crude oil oozing to the surface resulted in what in the United States were called 'bad lands'. There was then no effective demand for crude oil and its presence on the surface rendered the land useless for agriculture. The inventions of more recent times have created an effective demand for crude oil and these former 'bad lands' now give access to an oilfield. Property rights over 'bad lands' became so valuable that the owners found themselves to be millionaires without any work or outlay on their part.

Again, a distinction is required between natural resources and raw materials. For example, coal reserves lying unused in their natural place in the universe are a natural resource, but to a miner working at the coal face they are raw material.

From Alfred Marshall's argument in respect of barren heath land, it is to be concluded that natural resources do give rise to a public value and therefore, providing that government performs its duty of collecting the corresponding public revenue, the necessary work of exploration is a matter for government initiative.³

This does not imply any need to expand the public sector by setting up vast state corporations, for in most cases there are likely to be advantages in government employing private specialist firms on the basis of competitive tendering.

The UK has already moved some way towards the recognition of natural resources as public assets to be excluded from private property rights over land. It is not now possible for a freeholder in the UK to become an oil millionaire by some fortunate accident, as freehold property rights do not extend to oil reserves that may be found below the surface. The private sector firms that engage in oil exploration operate today under government licence.

The important difference between land and natural resources is that human work and outlay cannot produce land, while natural resources are the product of the human work and outlay put into enterprises leading to their discovery to meet an effective demand.

The Public Sector

Enrico Barone and most other writers on public finance assume the extent of the public sector to be determined by political rather than by economic considerations. Orthodox economic theory reinforces this assumption by ‘the very bareness of the economic principles’ it is able to provide.⁴

In practice governments decide on what is to be included within or excluded from the public sector on a majority vote based largely on political expediency or prevailing ideology.

The possibility of Alfred Marshall contributing to the issue was lost in the welter of exceptions to his definition of ‘situation value’ that followed inevitably from his definition of ‘private value’.⁵

For example, as described above, while admitting that the larger part of ‘situation value’ is ‘public value’, Marshall was forced to argue that when the owners of freeholds invest their capital not directly on their freeholds but in building a railway or some similar enterprise which gives to their freeholds a ‘situation value’, then that value is a ‘private value’. The income that it generates is to be considered, he concludes, as a private profit on their investment.

This line of argument does not elucidate any economic principle but merely accords with current practice. If, however, the private value of freehold rights over land is defined as above, so that the public value is precisely Alfred Marshall’s ‘situation value’, there emerges the possibility of determining the full extent of the public sector by economic principle rather than political considerations.

Let it be supposed that government performs its public duty and collects the total public revenue for the sole purpose of defraying public expenses and there is no taxation. Given this circumstance, then the exceptional cases noted by Marshall where ‘private value’ is part of ‘situation value’ will not arise.

Under these circumstances, freeholders will be encouraged to invest directly in improvements to their freeholds to the extent that this is expected to yield a private income or benefit they consider

to be an acceptable return on their investments. Such investments will enhance the private values of their freeholds and may also enhance public values. For example, when two or three properties in a run-down street are improved then not only will the private value of those particular properties increase, but the investment is likely to have an incidental effect of raising the public value of all properties in the street. Apart from acts of philanthropy, however, freeholders and others will not be prepared to invest in enterprises that are expected to enhance the public values of freeholds rather than their private values.

In such cases investors will know in advance that they cannot expect to receive sufficient return on their investment to make the enterprise a commercially viable proposition. The government will be collecting as public revenue that part of the income generated by 'situation value' which Marshall argued should be considered as private profit so as to provide a sufficient return on capital outlay.

In these supposed circumstances, Marshall's exceptional cases illustrate an economic principle for determining the parameters of the public sector. Acting on this principle, the public sector would cease to consist of whatever a legislature by a majority vote may in its wisdom decide – as Enrico Barone accepted and contemporary governments act upon as if it were a self-evident truth.

Providing governments collect the whole of public revenue and do not appropriate by taxation or similar means any part of private income, then they may safely leave to market forces and private sector initiative all enterprises where the work and outlay required is expected to yield a private value, or private income, sufficient to cover the total supply price including a minimum margin of profit.

The public sector may then be limited to the supply of those goods and services for which there is an effective demand by the community as a whole, but where also the work and outlay is not expected to yield a private value or income sufficient to provide an acceptable return to private investors. If such an effective demand is to be met then, as Barone argued, public initiative using public

funds is necessary. When governments act in accordance with this economic principle their decision making is assisted by a built-in cost-benefit analysis, which determines whether or not there exists in reality an effective demand, and the extent of that demand.

When the demand by the community as a whole for government to supply certain goods, services or benefits out of public funds is effective, then meeting this demand will increase public value and the expected revenue to a level that will cover the full supply price, or at least that part of it which it would be self-defeating to attempt to cover by receipts from market prices in the ordinary way.

In those cases where it is agreed the public value and expected public revenue would not increase to cover the expected supply price, then there does not exist within the community an effective demand sufficient to necessitate a government initiative.

Thus, with taxation abolished, and given prudent government, public revenue will be, by definition, sufficient to cover necessary public expenses. There will be room, in addition, for limited public initiatives using public funds to meet certain demands on political grounds only, although they may not be expected to be effective demands relative to any likely increase in public value or revenue.

As noted above, some public value and revenue is produced by the general public automatically in pursuit of their private ends at no public expense. Further, reliance upon taxation as a source of public revenue to defray public expenses has allowed governments to escape from financial restraints and to establish, as an accepted principle of public finance, that they increase the public revenue to cover their spending estimates.

When governments perform their public duty of collecting the public revenue and act in accordance with economic principle they become subject to the same financial discipline that applies to the private sector.

Taking one year with another, government is then required to adjust its spending to the expected amount of public revenue, and this provides the much needed barrier to public profligacy.

References

1. Enrico Barone, *Giornale degli Economisti*, April/May 1912.
2. J. S. Mill, *Principles of Political Economy*, Bk. II, Ch. II.
3. Alfred Marshall, *Principles of Economics*, Bk. V, Ch. X, para. 5.
4. A. R. Prest, *Public Finance in Theory and Practice*, Ch. 3, p.65.
5. Alfred Marshall, *op. cit.* Bk. V, Ch. XI.

10

Towards Reform

Policy objectives such as a zero rate of inflation coupled with low unemployment, extensive social welfare, and economic prosperity require high levels of public spending. When that spending is to be funded by equally high levels of taxation or borrowing, a zero rate of inflation is incompatible with the other policy objectives with which it is coupled.

Politicians may win votes by their promises, but upon election to government they will be unable to deliver in full. As has been deduced from the theory of Keynes and the work of Colin Clark, the imposition of any amount of taxation inevitably raises prices and also distorts and restricts production. When the amount of taxation exceeds a certain proportion of net national product at market prices, government is confronted with a choice: a zero rate of inflation, together with a persistent slump; or persistent inflation and what may be passed off for a time as economic prosperity.

The case argued in this work, the abolition of all taxation and its replacement by the collection of public revenue by government as a public duty, is a *prerequisite* for solving the major social and economic problems, including inflation and unemployment, that today appear endemic in industrialised trading economies. Only when this fundamental change in public finance is completed will social justice, a stable general price level and economic prosperity become possible to achieve.

Setting in motion such a change is not an immediate panacea, although when implemented in an appropriate way it will bring immediate benefits. The fundamental reform of public finance will take time to complete and the method by which it is accomplished

will vary from country to country, depending upon their particular circumstances. The first step in the process must be the production of a full valuation list of current public value, accompanied by the administrative arrangements for keeping the list of data up-to-date, preferably on an annual basis.

This is not a difficult task and, in the opinion of professional assessors, would be much simpler than the re-valuations completed for the former local rating system in England and Wales.

In 1963 the Rating and Valuation Association carried through a pilot survey of the Whitstable UDC area. Although it was carried out to support an alternative proposal for local taxation, this survey in fact provided an initial estimate of the public value as defined in this work and was completed within a period of nine months.

Following the production of public valuation lists further time, say up to one year, must be allowed for the hearing and settlement of likely objections.

Thus experience suggests that in the United Kingdom the House of Commons would be able to determine a national rate and begin collecting some part of the public revenue within three years from a Bill first being introduced.

Upon a first assessment of public value, the public revenue that could be obtained from this source would no doubt be significant, but no more than a proportion of current total tax revenues. For the UK, the result of the 1963 pilot survey of the Rating and Valuation Association implies that the first valuation could produce a public revenue of the same order of magnitude as local taxes.

Nonetheless, United Kingdom evidence shows conclusively that over a period of time there is a negative relationship between the proportion of net national product at market prices appropriated as tax revenue and that accrued as net disposable property income.¹

As the proportion appropriated as tax revenue rises or falls, then over time, the proportion that is accrued as net disposable property income falls or rises in equal measure. Since income generated by public value is a significant part of net disposable property income

as found in the standard system of national accounting, it is to be expected that this also will fall or rise inversely to taxation.

Thus, as taxation is reduced, public value will rise at the next revaluation and with this rise, public revenue will increase, given a constant rate, and so allow a further cut in the amount of taxation.

Having made the first step of collecting the amount of public revenue that is directly available and reducing taxation by an equal amount, government must wait upon the economy adapting to the new set of circumstances. Once the process of fundamental change in the method of public finance has been started a government may continue the process, in the economy's own good time, until all taxation is abolished and the full public revenue is being collected.

Any cut in the amount of taxation will result eventually in a rise of public value. However, it is important for government to select those taxes to be cut, whether national or local, that most directly affect the immediate benefits required by the economy.

In the United Kingdom, for example, abolishing the employers' contributions to social security taxes (a form of payroll tax) as a top priority will tend to reduce unemployment quickly, as it would immediately reduce labour costs to all employers of labour. Such a move would not only reduce public expenditure by reducing the claims on social security benefits, but by reducing labour costs, it would automatically improve the competitive position of home producers as against overseas producers and assist in rectifying an adverse balance of payments position.

If, on the other hand, it was considered desirable to expand consumer demand, then cutting the amount of taxation by raising income tax thresholds would be appropriate. This change would immediately increase the amount of money in the pockets of those consumers who may be expected to spend the major part of an increased personal income. This again would create opportunities for cutting public expenditure since, as the number of income tax payers is reduced, the work load of the Inland Revenue is reduced.

For the most effective continuation of change in the method of

public finance, it is essential that when reducing the total amount of taxation, government creates the opportunity for reducing public expenditure, as well as for achieving its short-run objective.

In the UK, for example, giving priority to reducing the standard rate of income tax from 25 to 20 per cent may be most desirable from the point of view of taxpayers, and may marginally increase consumer demand, but it will not create significant opportunities for the government to reduce public expenditure.

At a time when environmental considerations are paramount, the proposed fundamental change in the method of public finance is of particular importance. By collecting public revenue in place of tax revenue, a government will be able to remove the causes of much environmental despoliation rather than merely attempting to mitigate the results.

Pollution will continue so long as it is profitable and will cease when it ceases to be profitable. Punitive taxation may be a possible means of ensuring unprofitability, but at a cost to the economy as a whole which is likely to prove unacceptable.

What may be profitable to the polluter is, to everyone suffering from the pollution, an external diseconomy which depresses public value and so reduces the public revenue available for collection by government. If it were widely known that, as a matter of practice, the government would automatically seek to make good the loss of public revenue from the polluter, the processes causing pollution would become unprofitable and cease.

For example, if a river became polluted with excess nitrogen, the public value of a water company's rights of extraction would fall and with it the public revenue. Providing farmers were aware that any loss of public revenue arising from such a cause would be charged to them, they would cease to apply the excess nitrogenous fertilisers, as the net additional produce obtained would become loss making rather than profit making. In the new circumstances this method of removing the causes of pollution becomes capable of wide application.

The public revenue to be collected by government as a public duty is not an arbitrary levy, and is therefore not a form of taxation in economic terms. The payment of public revenue will enter into the supply price of individual firms but, unlike tax revenue, it will not, when aggregated, inflate the aggregate supply price.

By collecting the public revenue government will be charging to occupiers the current market price of all the publicly produced externalities available to them at the places which they occupy.

For productive enterprises this means that firms will be required to pay for publicly produced externalities as they already pay for other services and raw materials that are consumed in the process of production: both sets of payments cancel out upon aggregation.

A difference between the two sets of payments is that public revenue will be charged not on the basis of what is *consumed* in the process of production, but according to the publicly produced externalities *available* to the site occupied. This fact will both ease planning procedures and provide environmental benefits.

Profitability will demand that firms seek to locate on those sites at which the publicly produced externalities available are those they need to produce competitively. At any other location they will incur unnecessary costs either as a result of paying a public charge for externalities they do not require, or by paying privately for the externalities required but not available at the site they occupy.

The tendency towards micro-dispersion, or 'urban sprawl', will be replaced by a tendency towards micro-concentration as a matter of private choice and without government compulsion.

The momentum of the process of change from tax revenue to public revenue will depend on the government not attempting to increase its total income by niggardly tax cuts. When taxation is abolished, however, the public revenue to be collected will exceed the public expenditure needed by a prudent government for public services of all kinds. This will arise in the very nature of things, for much public value is produced by the general public automatically and at no public expense. For example, sites adjacent to a railway

station enjoy enhanced public value produced by the passing trade available from the number of passengers using that railway station.

This enhancement of public value incurs no additional public expense; the old private railway companies were well aware of this bonus, and usually purchased the freeholds of adjacent sites before building the station.

The excess of public revenue over necessary public expenditure would set a financial limit for social welfare schemes undertaken by government which are not expected to yield a public revenue sufficient to cover the public expense.

The challenge of our time is to become awake to the possibility of taking steps towards realising the given right of humanity to a truly just society in which they may live and, as free individuals, live more fully. This awakening requires a lead from economics for it is largely market forces generated by economic ignorance that hold the world's population in thralldom.

Economists must direct their work so that by its results they are recognised as the 'trustees of the possibility of civilisation'. This requires them to observe the nature of present day trading societies and, on the basis of these observations, offer to governments and electors policy prescriptions in line with the aim of their science and indeed all sciences – that people may live and live more fully.

Politicians also have an important part to play as servants to the community. They must cease to pick and choose advice depending on their momentary political beliefs and what they hope to be to their political advantage while side-stepping reasonable discussion of alternatives or even pretending ignorance of such alternatives.

Political democracy rests on politicians listening to the people in a free, full and honest discussion of all the relevant alternatives in the light of current knowledge. The arguments in this work are put forward to assist such a discussion.

References

1. Ronald Burgess, *Fanfare to Action*, Ch. VII, pp.32-37.

Appendix

Much has been written about Keynes' *General Theory*. Prior to the 'Keynesian revolution', it was widely assumed – but not without vigorous challenges – that an economy would naturally move to a state of equilibrium in which (i) supply and demand are in balance, and (ii) competitive forces would bring about full employment.

In the depression years of the 1930s, it was apparent that this was not the case. Keynes showed that an economy could be in a state of equilibrium whilst production resources were unused, yet demand was not being satisfied. He therefore concentrated on the concept of *effective demand*, and practical methods of solving the problem of unemployment. Increased government spending based on borrowing could, under the right conditions, be such a method.

Keynes described the *General Theory* as a broader perspective within which the classical economic model of Ricardo and others could be seen as a special case with monetary stability and little or no unemployment. 'The characteristics of the special case assumed by the classical theory', he pointed out, 'happen not to be those of the economic society in which we actually live.'¹

Effective demand could be approached in two different ways. The first was to consider its relationship to the quantity of money in circulation, represented by the equation $MV = PT$, where M is the quantity of money, V its velocity of circulation in the economy, P the general price level, and T the volume of transactions.

Keynes opted instead for the formulation $Y = C + I$, where Y is the aggregate national income, C the consumption outlay, and I the investment outlay. This approach was more conducive to analysis of the aggregate effective demand, represented by the total, $C + I$.

The aggregate national income results from the production of outputs for sale. As income levels rise, consumers tend to set aside an increasing proportion as savings. Unless there is an equivalent increase of investment outlays, there may be a shortfall of demand, leading to a lower level of both output and employment. It could no longer be assumed that, due to the operation of Say's law, the economy would always move towards full employment.²

Given the specific circumstances of the time, it appeared that government intervention, in the form of additional demand, could increase employment and lift the economy out of depression.

Taxation receives relatively little attention in Keynes' *General Theory*. Central government expenditure in 1932/3 was little more than 25 per cent of GDP. Whilst this offered scope for adjustments in fiscal policy, significantly higher taxation was not anticipated.

The post-war circumstances were entirely different, and by the 1970s taxation as a proportion of GDP had risen above 35 per cent.

In moving forward from the *General Theory*, Burgess therefore considers the overall level of taxation and government borrowing.

In a closed economy with no significant imports or exports, the aggregate demand price is the total of expected consumer outlay, investment outlay, and general government expenditure on final consumption, G. This total can be represented as $C + I + G$.

Spending on consumption and investment is then re-defined to include only spending out of take-home pay, and investment outlay from net disposable profit income. Government expenditure is then defined as spending from tax revenue and borrowing. It can safely be assumed that all government revenue and borrowing is spent.

This prepares the ground for a full consideration of the effect of taxation on aggregate supply and demand, output and employment, the general price level in the economy, and the rate of inflation.

The analysis shows that a trading economy will move towards an optimum level of output at minimum cost as domestic taxation is progressively reduced and ultimately eliminated altogether. An alternative method of raising public finance is therefore required.

The concept of the economic upper limit to taxation, calculated in terms of total government revenue plus borrowing requirement as a share of the net national product, also comes into play.

Colin Clark had previously studied under Keynes and assisted with the preparation of the *General Theory*. In 1945 he published the results of an empirical study, based on pre-war evidence, from which he concluded that the economic upper limit to taxation was typically in the region of 25 per cent of net national income.

Keynes agreed with this proposition. In a letter to Clark in May 1944 he wrote: 'In Great Britain after the war I should guess that your figure of 25 per cent as the maximum tolerable proportion of taxation may be exceedingly near to the truth. I should not be at all surprised if we did not find a further confirmation in our post-war experience of your empirical law.'³

Under the prevailing economic conditions of the 1980s, Burgess found that the economic upper limit for the UK was in the region of 30 per cent of the net national product at current market prices, whereas the actual proportion for the year 1982 was 46.6 per cent.

In Chapters 9 and 10 of this book Burgess restates the principles of public revenue and sets out a possible way forward. Following the approach used by Keynes, the method of 'comparative statics' can be applied to show how an economy moves from one state to another in response to policy changes. The dynamic process which occurs between the two states may entail a series of time lags.

In Chapter 10, Burgess writes: 'Having made the first step of collecting the amount of public revenue that is directly available and reducing taxation by an equal amount, government must wait upon the economy adapting to the new set of circumstances.'

This wording does not imply, however, that the introduction of a new system for the collection of public revenue is the first step.

Before attempting to collect public revenue, taxation must first be gradually reduced below the economic upper limit. It would be both unnecessary and harmful to begin with the introduction of a new system of collecting public revenue as 'just another tax'.

In the first instance it would be necessary to identify an existing tax for progressive reduction. This could be selected for its income effect, or its supply-side effect, according to the circumstances.

As the total of government revenue plus borrowing as a share of the net national product begins to be reduced below the economic upper limit, actual tax revenues received are likely to increase.

A period of time would then be needed to allow for the effects of this change to filter through the economy as it adjusts to the new conditions. During this initial period both public and private values would begin to increase, leading to an uplift in the available public revenue. At the same time, it is to be expected that the overall cost of provision of public goods and services would begin to reduce.

This new increment of public revenue can then be collected by the public authorities on the basis of a system of formal valuation, or by other suitable means. Thereafter, another tax can be selected for progressive reduction, and the same process may then continue until all forms of taxation have been completely eliminated from the trading economy and replaced by a system of public revenue.

Challenges may arise, but as Keynes observed in the Preface to the *General Theory*: ‘The difficulty lies, not in the new ideas, but in escaping from the old ones, which ramify, for those brought up as most of us have been, into every corner of our minds.’⁴

The implications of a system of public revenue without taxation are both far-reaching and dramatic. In this way, however, society may be able to progress towards ‘the possibility of civilisation’.

References

1. J. M. Keynes, *The General Theory of Employment, Interest, and Money*, Ch. 1, p.1
2. *Ibid.* Ch. 3, p.89-106, and Ch. 18, p.245-254.
3. Colin Clark, *Taxmanship*, p.21.
4. J. M. Keynes, *op. cit.* p.viii.

Bibliography

The main references identified in this volume are listed below in the order in which they first appear in the text.

1. R. F. Harrod. *The Life of John Maynard Keynes*. Macmillan & Co., London, 1951; also Harcourt, Brace and Co., New York, 1951.
2. W. H. Beveridge. *Full Employment in a Free Society: A Report*. Allen & Unwin, London, 1944; and other subsequent editions.
3. J. M. Keynes. *The General Theory of Employment, Interest, and Money*. Macmillan and Co., London, 1936.
4. C. G. Clark. *Public Finance and Changes in the Value of Money*. *Economic Journal*, Vol. 55, No. 220, December 1945, pp.371-389.
5. C. G. Clark. *Taxmanship: Principles and proposals for the reform of taxation*. Institute of Economic Affairs, Hobart Paper No. 26, 1964.
6. H. G. Johnson. *Further Essays in Monetary Economics*. Chapter 2: *The Keynesian Revolution and the Monetarist Counter Revolution*. Allen & Unwin, London, 1972.
7. R. Nozick. *Anarchy, State, and Utopia*. Basic Books, 1974.
8. Adam Smith. *An Inquiry into the Nature and Causes of the Wealth of Nations*. 1st edition, A. Strahan and T. Cadell, London, 1776; 5th edition, Methuen & Co., London, 1904, edited by E. Cannan.
9. D. Ricardo. *On the Principles of Political Economy and Taxation*. John Murray, London. 1st edition, 1817; 3rd edition, 1821.
10. A. C. Pigou. *The Theory of Unemployment*. Macmillan & Co., London, 1933; also reprinted by Frank Cass & Co., London, 1968.
11. John Stuart Mill. *Principles of Political Economy*. John W. Parker, London, 1848. 7th edition, Longmans, Green, Reader & Dyer, 1871.

12. D. Patinkin. *Money, Interest, and Prices: An Integration of Monetary and Value Theory*. Row, Peterson and Company, Evanston, Illinois, & White Plains, New York, 1956; and subsequent revised editions.
13. Hugh Dalton. *Principles of Public Finance*. Routledge & Kegan Paul, 4th edition, London, 1954; and subsequent revised editions.
14. Edwin Cannan. *Evidence to the Royal Commission on Local Taxation (1896–1902)*. H. M. Stationery Office, London, 1899.
15. J. R. & U. K. Hicks. *The Incidence of Local Rates in Great Britain*. National Institute of Economic and Social Research, London, 1945.
16. Maffeo Pantaleoni. *Teoria della Traslazione dei Tributi. Definizione, dinamica e ubiquità della traslazione*. Tip. di A. Paolini, Roma, 1882.
17. Ursula Hicks. *The Terminology of Tax Analysis*. *Economic Journal*, Vol. LVI No. 221, March 1946. Macmillan & Co., London, pp.38-50.
18. R. Burgess. *Fanfare to Action – Income distribution as a cause of inflation*. Paper no. 3, Economic Study Association, London, 1973.
19. Thomas F. Dernburg. *The Macro-economic Implications of Wage Retaliation Against Higher Taxation*. *International Monetary Fund Staff Papers*, Vol. 21 No. 3, November 1974, pp.758-788.
20. C. J. Bruce. *The Wage Tax Spiral: Canada 1953-70*. *Economic Journal*, Vol. 85, Issue 338, Macmillan & Co., 1975, pp.372-376.
21. Organisation for Economic Co-operation and Development. *Studies in Resource Allocation: Public Expenditure Trends*. Paris, 1978.
22. John Hicks. *Economic Perspectives – Further Essays on Money and Growth*. Oxford University Press, London, 1977.
23. Milton Friedman. *The Counter-Revolution in Monetary Theory*. Occasional Paper 33, Institute of Economic Affairs, London, 1970.
24. A. W. Phillips. *The Relation between Unemployment and the Rate of Change of Money Wage Rates in the United Kingdom: 1861-1957*. *Economica*, Vol. 25, No. 2, November 1958, pp.283-299.
25. M. Friedman and D. E. W. Laidler. *Unemployment versus Inflation: An evaluation of the Phillips curve*. Occasional Paper No. 44, Institute of Economic Affairs, London, 1975.

26. F. Quesnay. *Physiocratie, ou constitution naturelle du gouvernement le plus avantageux au genre humain*. Dupont de Nemours, 1767.
27. Henry George. *Progress and Poverty: An Inquiry into the Cause of Industrial Depressions and of Increase of Want with Increase of Wealth – The Remedy*. D. Appleton & Co., New York, 1879.
28. A. P. d'Entrèves, trans. J. G. Dawson. *Aquinas – Selected Political Writings*. Basil Blackwell & Mott Ltd. Oxford, 1959. Latin and English parallel text, including *De Regimine Principum*.
29. Enrico Barone. *Studi di economia finanziaria*. *Giornale degli Economisti e rivista di statistica*, Athenaeum, Roma, Aprile/Maggio 1912. Series 3, Vol. 44, No. 4/5, pp.309-353.
30. A. R. Prest. *Public Finance in Theory and Practice*. Weidenfeld and Nicolson, London. 1st edition, 1960; also 3rd edition, 1966.
31. Paul Leroy-Beaulieu. *Traité de la Science des Finances*. Guillaumin et Cie., Paris. 1st edition, 1877; 3rd edition, 1888; 8th edition, 1912.
32. Jean-Baptiste Say. *Traité d'économie politique* (Treatise on political economy; or the production, distribution, and consumption of wealth). 1st edition, Crapelet, Paris, 1803; and subsequent revised editions.
33. Alfred Marshall. *Principles of Economics: Volume 1*. Macmillan & Co., London, 1890. Marshall's original Volume 2 was not published.
34. H. M. Wilks, for the Rating and Valuation Association. *Rating of Site Values: Report on a Pilot Survey at Whitstable*. London, 1964.

For translations of Pantaleoni, Barone, and Leroy-Beaulieu:

35. R. Musgrave & A. Peacock (eds.). *Classics in the Theory of Public Finance*. Palgrave Macmillan, London, 1958; 2nd edition, 1967.

For an introduction to the study of Keynes' *General Theory*:

36. A. H. Hansen. *A Guide to Keynes*. McGraw-Hill Book Company, New York, 1953.

Index

Aggregate demand –		Friedman, Milton	35, 54, 58, 60, 63
component parts	26		
function, defined	20	George, Henry	79-83, 98, 102
price curve	20, 25-27	Government –	
Aggregate supply –		borrowing	35-36
function, defined	20	printing money	35
price curve	7, 20, 22-25	taxing and spending	34
Aquinas, St. Thomas	80		
		Hicks, John R. and Ursula K.	41-43
Bargaining gap	22	Johnson, Harry G.	3
Bargaining mechanism	21, 22		
		Keynes, J. M.	1-2, 19-27, 29, 33-38, 43, 54, 64-70, 78-79, 111, 117-120
Barone, Enrico	85-88, 90-93		
Beveridge, William	2	Labour –	
		market	62
Cannan, Edwin	39	price of	71-72
Civilisation, possibility of	1, 6, 120	Land –	
Clark, Colin	2, 59, 111, 119	as a free good	105
Comparative statics	20, 119	private and public value	93
		question of	104-106
Dalton, Hugh	39	Leroy-Beaulieu, Paul	88-92
Demand, effective	20, 117		
Demand-side approach	34, 36	Marshall, Alfred	93-98, 104-108
Demand-side school	1-6	Mill, John Stuart	12, 101
Dupont de Nemours	76, 78	Monetarist approach	3, 19, 54, 70
Economy –		Marshall, Alfred	93-98, 104-108
mixed	14-16	Mill, John Stuart	12, 101
modern trading	5-12, 92	Monetarist approach	3, 19, 54, 70
non-trading	8-10		
supply-side view	27-29	Natural resources	105-106
Employment, full	2, 3, 19-21, 29	Net product	76-79
Environmental concerns	114-115	Nozick, Robert	4
Externalities	10, 103-104, 115		
		Pantaleoni, Maffeo	41
		Patinkin, Don	27

Pay bargaining	64-67	Supply-side approach	36-38
Pay bargain gap	67-70	Supply-side school	1-6
Phillips, A. W.	63, 74		
Phillips curve hypothesis	63, 68, 74	Tax –	
Pigou, A. C.	10, 63	definition	13, 39
Pitt, William	4	inflation	57-58
Prest, A. R.	87	retaliation	53-57
Primary division of output and income	8-10	revenue	13-14
Privatisation	3	shifting process	41-58
Profit	29-34	Taxation –	
Property rights	11-12	classification –	
Public sector	107-109	administrative	40-41
		macroeconomic	41-44
Quesnay, François	76	economic upper limit 2,	59-60, 119
		formal incidence	44-51
Railways	89-91, 96, 115-116	income-effect, defined	43
Raw materials	78, 106, 115	macro-economic case	84-88
Ricardo, David	9, 79-82, 117	of employment	70-74
Rent, Ricardo's theory of	9, 79-83	of net national product	4, 15, 59
		supply-effect, defined	43
Say, Jean-Baptiste –		Unemployment –	
Say's golden maxim	88	natural rate	19
Say's law	2, 118		
Smith, Adam	5, 6, 29, 31, 50, 53, 55-56, 63-64, 86	Wage goods	10, 63
Supply, effective	20	Wage-price spiral	53-54

