Monetary Theory, Institutions and Practice

An Introduction

R W Evans G H Makepeace

Monetary Theory, Institutions and Practice: An Introduction

R. W. Evans and G. H. Makepeace

M

First published 1979 by
THE MACMILLAN PRESS LTD
London and Basingstoke
Associated companies in Delhi Dublin
Hong Kong Johannesburg Lagos Melbourne
New York Singapore and Tokyo

Typeset by
CAMBRIAN TYPESETTERS
Farnborough, Hants

Printed in Great Britain by
Redwood Burn Limited
Trowbridge & Esher

British Library Cataloguing in Publication Data

Evans, Robert Wyn
Monetary theory, institutions and practice.
1. Money – Great Britain
I. Title II. Makepeace, G H
332.4'941 HG939.5

ISBN 0–333–25332–9
ISBN 0–333–253337–7 Pbk

Preface

The aim of this book is to provide an introduction to the study of monetary economics and the U.K. banking and financial system. The book can be divided into four interrelated subject areas: introduction to monetary theory, banking in the U.K., economic policy, and international monetary affairs.

The opening chapters investigate the main features of money and the role played by money in classical-monetarist and Keynesian theories of the economy. Particular attention is paid to the assumptions underlying each approach and the policy alternatives available to the government.

The institutional framework is introduced by a chapter dealing with the more important aspects of financial claims, and the discussion develops naturally into a description of the London money markets. The following chapter outlines the nature and rationale for the various constraints placed on the operation of the banks and the section is completed by a description of the activities of the main types of bank in the United Kingdom.

The third major subject for analysis is U.K. macroeconomic policy. Although the discussion is fairly wide-ranging, particular emphasis is placed on those aspects of policy, such as public finance, debt management and monetary policy, which directly affect the banking and financial system.

The last part of the book deals with those international aspects of U.K. economic relations which are of direct relevance to the monetary system. The balance of payments, the international monetary system and the monetary implications of membership of the E.E.C. are all discussed in some detail.

The book will prove useful to two major types of student. One group are those taking the second-year examination for the Institute of Bankers, who will find that this book covers all the material necessary for the subject Applied Economics (Monetary Theory and Practice). The second group are students of economics and business who wish to have some knowledge of monetary economics and/or the U.K. financial and banking system. Since little background knowledge of economics is assumed the book will provide a useful supplement to introductory courses at many different levels, e.g. A Level, HNC/HND, degree level.

Throughout the text 'billion(s)' = 1000 million(s), i.e. United States billion.

R. W. E.
G. E. M.

ACKNOWLEDGEMENTS

The authors and publishers wish to thank the following, who have kindly given permission for the use of copyright material:

The Bank of England, for tables and statistics from *Quarterly Bulletin.*

The Controller of Her Majesty's Statio ry Office, for tables from *Financial Statistics.*

International Monetary Fund, for a table from *IMF Survey* (July 1974).

Morgan Guaranty Trust Company, for a table from *World Financial Market* (February 1972).

Oxford University Press for a table from *The U.K. and European Economic Community,* by Philip Keith-Loach.

Contents

Chapter 1

Money

When money is defined as notes and coins plus bank deposits a distinguishing feature of most economies is that money is the only good which can be bought and sold for all other goods. The institution of money is the one basic fundamental feature shared by a wide range of economies, including those in the communist bloc, and clearly the first task of any monetary economist is to explain why so many economies have found it convenient to use the same institution.

1.1 Barter and Money Economies

An obvious feature of these economies is that large numbers of their members are busily engaged in exchanging one good for another. For the majority of the population the most fundamental exchange involves swapping labour for goods that can be consumed or saved. There are many institutional arrangements which would enable the various exchanges to take place, but most exchanges involve the use of money. This is because money is an efficient mechanism for allowing exchange to take place on large scale in a society where individuals are allowed some discretion over what goods they consume.

Many useful insights into the role played by money can be obtained by considering the problems faced by an individual who wants to exchange one good for another. An unfortunate characteristic of trade is that it is costly so that the gains from trading are to some extent offset by the costs of trading.

In deciding how to organise his trading an individual will have to consider how important transactions and waiting costs are. Transactions costs are the costs involved in exchanging one good for another. The main costs will be the time it takes to buy and sell goods, but other factors such as the cost of transport might also be important. Waiting costs are the costs incurred through not trading. These costs include the subjective cost of having to do without goods that you want and the objective cost of storing goods in between trades. As an example consider some of the problems of providing groceries for a family. The groceries could be bought every day but frequent trips to the shops are tiring and time-consuming. Most people prefer to buy their groceries at less frequent intervals. However, this requires more organisation to make sure the right quantities are bought, transport is more difficult because larger quantities are involved, and expensive storage facilities such as refridgerators, freezers and cupboards have to be provided. However, it appears that most families are prepared to incur some waiting costs in order to cut down on their transactions costs but they are unwilling to cut their transactions costs further by shopping at, say, monthly intervals because the reduction in transactions costs is outweighed by the increase in waiting costs.

The main problem is to show how money reduces these costs by providing a relatively efficient exchange mechanism. The main alternative to a monetary economy is a barter economy. A pure barter economy is one in which there is no money but all goods can be traded for one another. A pure barter economy is an inefficient way of organising trade and has two possible faults.

The first weakness is that it requires individuals to remember a great deal of information. Since any good can be exchanged for any other good there must be a relative price for each potential exchange. Consider an economy in which there are three goods: apples, potatoes and cheese. 3 lb. of apples are reckoned to be equivalent to 6 lb. of potatoes or 1 lb, of cheese. In a barter economy the following exchanges would be allowed: apples for potatoes, apples for cheese and potatoes for cheese. There must be a price involved in each exchange and these prices are known as the relative prices since they show the price of one good relative to another. In the example the relative prices are 2 lb. of potatoes per 1 lb. of apples, $\frac{1}{3}$ lb. of cheese per 1 lb. of apples and $\frac{1}{6}$ lb. of cheese for 1 lb. of potatoes. There are three possible exchanges so that an individual has to remember three prices. This is not a very difficult task in the present example but in general if there are n goods in the economy there are $\frac{1}{2}\, n(n - 1)$ relative prices. A comparatively small economy, with 100 goods, would have $\frac{1}{2}\,(100)\,(99) = 4950$ relative prices for each individual to remember. Fortunately there is no real need for so many prices to be remembered since the number can be reduced to $n - 1$ if a unit of account is chosen. When a good acts as a unit of account everyone in the country agrees to express all prices in terms of the unit of account. The only prices quoted are prices in terms of the unit of account. Suppose that apples were chosen as the unit of account in the previous example. Then the only prices recorded will be potatoes in terms of apples and cheese in terms of apples. If the number of goods is fairly large, then the amount of information required for trade is considerably reduced. For 100 goods the number of prices is reduced from 4950 to 99.

The selection of a unit of account is straightforward and it is possible for a barter economy to operate with a unit of account. A more fundamental failing of a simple barter economy is that it requires the existence of a 'double coincidence of wants' before any trade can take place. Suppose an individual wishes to exchange a fixed quantity of good A for good B at the prevailing relative price. Before this trade can be completed the individual will have to find another person willing to buy the exact quantity of good A supplied in return for good B. If the relative price of apples in terms of cheese is 5 lb. of apples for 1 lb. of cheese, then a person wanting to exchange 5 lb. of apples for cheese has to find someone willing to sell 1 lb. of cheese for apples. Where trading is not organised the establishment of a 'double coincidence of wants' will be very time-consuming and will lead to high transactions costs.

Even the most primitive societies have attempted to reduce these transactions costs by organising the exchange of goods.

A common device is to establish markets where large numbers of people interested in trade can congregate. An individual can increase the probability of finding a trading partner in a given time period by attending the market. Trade can still be tiring and time-consuming if the market involves undisciplined masses of people thronging together, and the transactions costs can be reduced still further by arranging trade in different items to be concentrated at specific trading points.

A man wishing to sell cheese will go straight to the area specialising in trading cheese, and wait for someone willing to sell apples. He may still have to wait a considerable time before establishing a 'double co-incidence of wants' but the likelihood of a satisfactory outcome has increased. Since there is no guarantee of a successful outcome, but there is a ready demand for cheese, an individual could reduce the transactions costs still further if he could sell his cheese for some intermediate good and use this intermediate good to buy apples.

The gains from trade using intermediate goods are obvious but there is always the risk that intermediate goods will not be accepted by other individuals. The first intermediate goods will therefore tend to have a well-recognised value based on qualities other than their usefulness in trade. Only after a considerable period of time are societies able to realise the full cost advantage from the use of intermediate goods by producing specialised goods which have no intrinsic value other than that gained from their function as intermediate goods. When an intermediate good is used in trade it is said to act as a medium of exchange.

A medium of exchange or means of payment can be defined as any good which is widely accepted in exchange for other goods. The use of a means of exchange separates the act of selling a good from the act of buying a good and thus avoids the costs associated with the establishment of a 'double co-incidence of wants'. The purchasing power of the economy is generalised because people are no longer restricted to particular trades of one good for another and the choice of possible trades is extended because expensive trades have become relatively cheaper. In a pure barter economy all goods act as a medium of exchange to a limited extent since any good can be exchanged for any other good provided that a 'double coincidence of wants' exists. The concept becomes meaningful when intermediate goods are used to facilitate trade and becomes very important when the number of intermediate goods is small and the bulk of the transactions undertaken in the economy involve the use of an intermediate good. In the later circumstances the intermediate good is called 'money' and the economy conforms to the famous definition of a monetary economy as one in which 'money buys goods and goods buy money but goods do not buy goods'.

The importance of establishing a 'double coincidence of wants' should not be underestimated. A modern western economy would not function if it relied on barter. A car worker would try to sell a week's work for a bundle of consumer goods. If the car producer were willing to accept this trade, it would be faced with the problems of exchanging cars for the bread, meat, houses and other goods demanded by his workers. Suppose that the producer found a baker willing to supply bread in return for cars. Then this baker would have the problem of using the cars he has earned to buy the consumer goods he and his workers want. In brief the gains from the division of labour could not be realised without an efficient mechanism for regulating exchange. In the absence of central planning the only practical solution to emerge has been the use of money.

The use of money reduces the cost of exchange still further by reducing the risks and uncertainties associated with trade. Trade will not take place unless both seller and buyer are confident that they will be satisfied with the goods they receive from the act. At present the vendor's reputation/prestige is the main guarantee of satisfaction for the purchaser, while the vendor has the satisfaction of receiving money in exchange for goods. In a barter economy the amount of 'trust' involved will be at least doubled because physical goods, of possibly variable quality, are exchanged in both directions. In a monetary economy one of the exchanges is 'safe' because it involves the use of a widely accepted good, money, whose quality is guaranteed by the government or a reputable bank.

Early societies were organised in such a way that small communities produced the vast bulk of the goods they consumed. Most trade took place between people who were well known to one another and a system of local mores guaranteed the success of trade. As the traditional societies were eroded people were forced to trade with strangers in order to reap the full benefits of capitalism. Buyers and sellers no longer had knowledge based on local experience and the resulting uncertainties were a natural barrier to trade. However, the uncertainty on the vendor's part can be reduced by the use of money since the offer of money gives the seller all the information he requires about a purchaser.

1.2 Types of Money

In most economies money acts as both a medium of exchange and the unit of account as it is advantageous for the same goods to fulfil both roles. In theory any good could assume these roles and in fact many different goods, ranging from salt and sea shells through cows to various metals, have done so from time to time. However, some goods are especially well suited to act as a means of payment so that there is a general tendency to use similar goods in different economies.

The physical characteristics of many goods are sufficient to prevent them from becoming successful media of exchange. When an intermediate good is used the sale of goods is separated by time and space from the purchase of goods. Thus an intermediate good has to be held for the period of time between the sale of one good and the purchase of another. Any good which deteriorates rapidly will not be suitable as a medium of exchange since its value falls over the time for which it is held. Similarly, goods will be bought and sold at different locations so that the intermediate goods will have to be transferred from one place to another. If this transfer is difficult or expensive, the good will not be used.

In any economy trade in valuable items such as cows takes place at the same time as trade in cheap items such as eggs. Since it would be useful if the same intermediate good could be used in each transaction, this requires the medium of exchange to be divisible into small units. Finally, it is also important for each unit of the medium of exchange to be the same as any other unit. If the units are different, people will attempt to substitute the less valuable units for the more valuable units, leading to a loss of cinfidence in the medium of exchange. This point will be especially important where there is the possibility of forging the means of payment.

Clearly many goods would be able to meet these requirements and be used as money. What is more interesting to note is that sometimes goods which are not very suitable, when judged on these criteria, are also used. Cows are an example; their value deteriorates if they are not fed, they cannot be transfered without supervision and cost, they cannot be divided and still function as money, and finally each cow is different; yet some societies have used cows as a means of payment because the benefits from using an intermediate good are so great that they outweigh the disadvantages of using an inefficient means of exchange.

Economic considerations also have an important role to play in determining the choice of a medium of exchange. People will only accept a good as an intermediate good if it has a stable value. If its value falls dramatically, then there will be widespread attempts to alter the conditions under which goods are exchanged. At one extreme the reaction will be the substitution of one type of intermediate good for another, while at the other the costs of using intermediate goods may be so high that people prefer the high transactions costs of a barter economy and revert to direct barter. A stable value implies that the demand and supply conditions are stable. The good should not become scarce so that its price is forced up or too plentiful so that its price is forced down. When it is scarce people will hoard the good and some of the benefits of an efficient exchange mechanism will be lost. If it is too plentiful, then it will be used to buy other goods – creating an excess demand which raises prices and causes inflation.

A monetary economy emerges when people are willing to accept an intermediate good in exchange for all other goods. During the early stages of development this requires a considerable amount of trust to be placed in the intermediate good. The best way to ensure that this trust is not misplaced is to choose a good whose value would be assured even if it no longer acted as a medium of exchange. For this reason many economies turned to precious metals such as gold. Since there was a stable market in gold before it was widely used as money, its intrinsic value was widely recognised. People were willing to sell goods for gold because the market for non-monetary gold guaranteed the value of gold. Over time this 'support' price became less and less relevant because the strong demand for gold as money dominated the market so that the stable value for gold became dependent on its use as an intermediate good. However, its intrinsic value is crucial in understanding its initial use as a means of exchange. The use of a precious metal such as gold incurs two hidden costs. First, some resources in the economy will have to be devoted to the acquisition of gold for use as money. Second, the use of gold as money means that it cannot fulfil its functions as a normal good, since gold in the form of an ornament is not as satisfactory a form of money as gold coin.

Over time commodity monies such as gold have been repaced by fiat money and bank deposits. Fiat money is paper money or coins which are issued by the government. Like commodity money the value of fiat money is determined by its demand and supply conditions, but unlike commodity money its demand is solely due to its acceptability as a means of exchange. To the extent that these types of money have low production costs and desirable physical characteristics, the economy gains from having a cheap and efficient means of exchange. If it is accepted for the moment that the supply of bank deposits is related to the supply of paper money, then there is one crucial difference between the market for commodity monies and fiat monies. Paper money has very low production costs which mean that the government could flood the economy with fiat money at little immediate cost to itself. The existence of stable market for fiat money therefore rests on the responsibility of government in managing the supply of money.

1.3 Money as a Store of Value

When an intermediate good acts as a medium of exchange it also acts as a store of value. An intermediate good is held for