LINO BRIGUGLIO

THE
MALTESE
ECONOMY

A Macroeconomic Analysis

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PREFACE

This book gives a general overview of the Maltese economy and describes the magnitude of change of some of its most important macroeconomic variables. The reader does not require knowledge of economic theory to follow the text, since the contents are essentially descriptive in nature. Throughout the book, however, reference is made to macroeconomic theory, so as to introduce the reader to well-known macroeconomic principles related to the subjects treated.

The book is divided into five parts. Parts One and Two deal with the major economic aggregates relating to output, expenditures and human resources. Part Three covers money, banking and inflation, while Part Four deals with international economic aspects. Part Five describes the Maltese multiplier process and gives and account of the pattern of change of the Maltese economy since 1960. Although there are some cross-references between one part and another and between one chapter and another, individual chapters are more or less self-contained, and can be read in any order.

At the end of the chapters one finds lists of publications related to the topics of the individual chapters. The references are mainly intended to guide the reader as to what literature about the Maltese economy is available. Most of the publications are found at the library of the University of Malta. In some cases the same publication is referred to in more than one chapter due to the fact that the publication in question covers more than one topic.

The book is principally intended for students preparing for Ordinary and Advanced level examinations, for first-year undergraduates, and for those preparing for professional examinations in accountancy, management, banking, and related subjects. It should also prove interesting to the general reader, as the language used is not technical, and the text is accom-

panied by diagrams to give a visual picture of most of the statistical data presented.

The idea for writing this book occurred to me while giving a course of lectures to undergraduate students from the Faculty of Education at the University of Malta. I realised that these students had every opportunity, in terms of availability of text books, to familiarise themselves with the British or American economies, but not with the Maltese Economy, and that, as a result, future teachers of economics were not being encouraged enough to see the relevance of macroeconomic theory to Malta.

During the preparation of this book, I sought and was generously given, help from a number of colleagues and students, too numerous to mention. In particular I would like to thank Sandro Aquilina and Joe Farrugia, two ex-students of mine and my daughter Marie, who helped in the proof reading and suggested improvements to the original text. I would also like to acknowledge the valid suggestions made by John A Consiglio with respect to the chapters on money and banking and by John C Grech with respect to the chapter on the European Community.

A work of this nature must necessarily draw on various previously published sources. Of special mention in this respect are the publications of the Central Bank of Malta which I have extensively used in the sections on the institutional and historical aspects of money and banking.

<div align="right">L.B.</div>

ECONOMIC OUTPUT AND HUMAN RESOURCES IN MALTA

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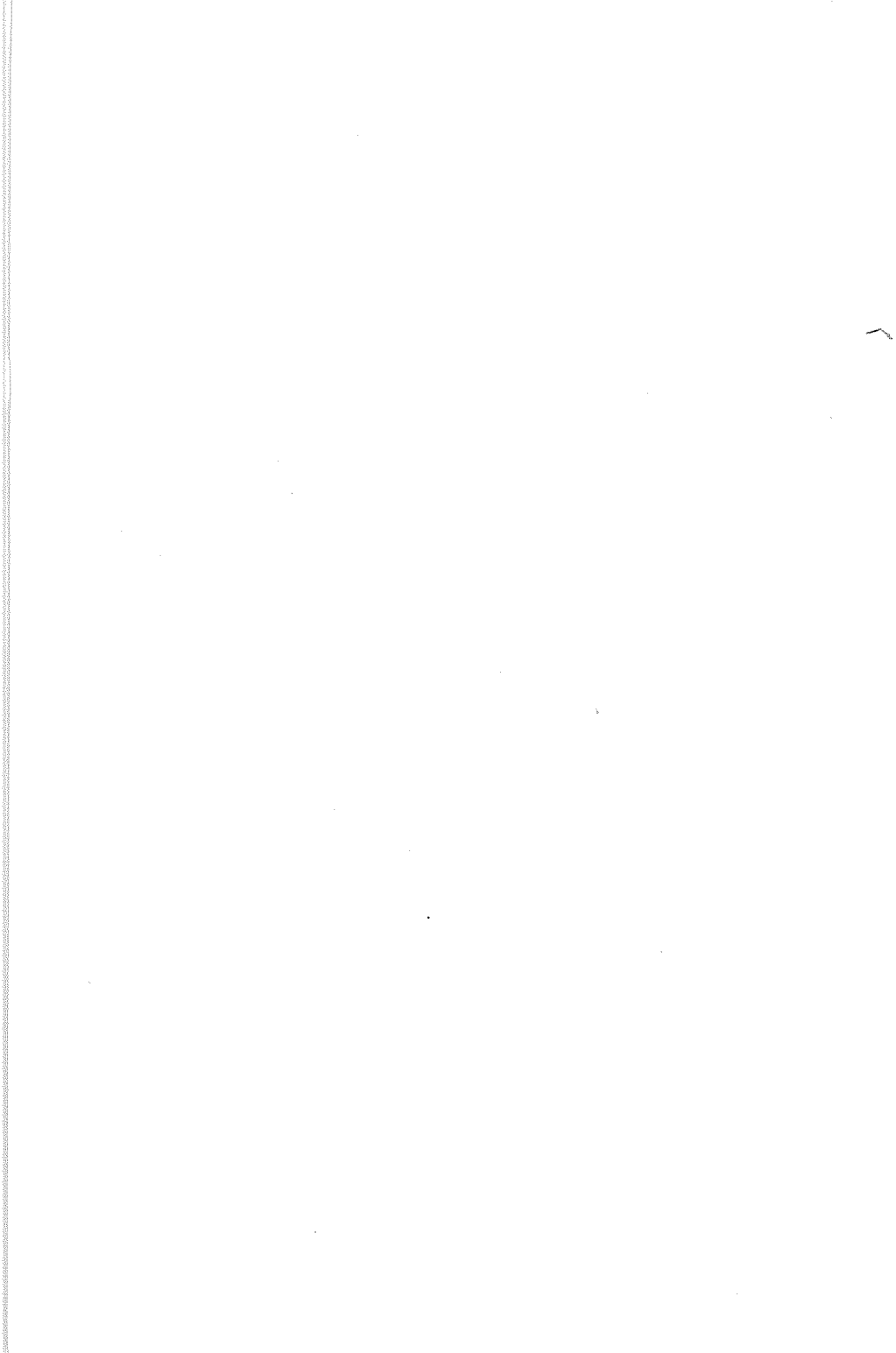
AGGREGATE OUTPUT, INCOME AND EXPENDITURE

The aggregate domestic product of a country can be measured by summing the *value added* of all domestic private firms and of the government in a given period of time. This method ensures that all goods and services produced are only measured once, and double counting is avoided.

Value added of a particular firm is the money value of the final gross output of the firm less the value of material and other inputs purchased from other firms. It represents the contribution that the firm makes to the final price of the product. For example, if during 1986, XYZ Fashions Co. produced Lm50,000 worth of clothing as final output, and purchased Lm30,000 worth of material from other firms to produce this final output, then the value added of XYZ Fashions Co. was Lm20,000.

If the value added of all clothing firms is added the result would be the value added of the clothing industry. An *industry* is defined here as a group of firms producing broadly similar products. For example, a firm producing pasta, another producing bread and another producing ice-cream form part of the food manufacturing industry. If the value added of all manufacturing industries (such as those producing food, furniture, machinery, clothing, beverages etc.) is summed , the result would be the value added of the manufacturing sector. A *sector* is here defined as a group of industries having broadly similar characteristics in their production processes.

The manufacturing sector is a very important one in the Maltese economy, since about a third of the domestic product is manufactured. Another important sector in Malta is the market services sector, which comprises wholesale and retail trades, transport and communications, insurance and finance, and personal services. The value added of a services enterprise is computed in the same manner as that of a manufacturing firm. A retail shop, say a grocer, buys inputs from wholesalers and adds a mark-up to cover expenses connected with his business (including rent, wages due to his employees, interest on money invested in the firm, and so on). If the enterprise is successful, the mark-up would also cover a margin

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of profit. This mark-up constitutes the value added of the grocer. The value added of all retail shops, and that of other "market services" enterprises, such as wholesale firms, banks, hotels, insurance agencies, etc. is the contribution that this sector makes to the domestic product.

Other sectors forming part of the economy are agriculture and fishing, construction and quarrying and the public sector (government). If the value added of all sectors of a given economy is summed, the *gross domestic product* (GDP) at factor cost would be obtained. The word "gross" indicates that the value is computed before deducting depreciation.

The Output Side

Table 1.1 gives the GDP for Malta in 1986 and the contribution made by the value added of different economic sectors. It can be seen that GDP at factor cost for 1986 amounted to Lm461.8 million. The table also shows that, taking the economy as a whole, the contribution of the production of goods in the private sector was about 38%. The market services sector contributed about 33% of GDP.

If another important service, namely public administration, is added to market services, the contribution of total services to GDP would be about 47%. In previous years the Maltese GDP included other types of services associated with the British military base, which contributed substantially to GDP during the sixties and the seventies.

Table 1.1
The Maltese GDP at Factor Cost (1986)

Sectors	Lm Million	%
Agriculture and fishing	20.4	4.4
Construction and quarrying	18.9	4.1
Manufacturing	134.7	29.2
Retail and wholesale trades	67.6	14.6
Transport and communications	26.2	5.7
Banking and insurance	24.8	5.4
Private services	35.6	7.7
Government enterprise	34.7	7.5
Public administration	62.3	13.5
Property income (domestic)	36.5	7.9
GDP at Factor Cost	461.8	100.0

Source: National Accounts of the Maltese Islands, Table 11.

The gross domestic product also includes an item called domestic property income. This represents the net receipts from ownership of land and building, including an imputed amount for owner occupied houses. It also covers interest earned from business loans from domestic sources. In the case of imputed rent, it is assumed that house ownership is a business in which the owner sells the services of a house to himself. As such it would be similar to the income made by a property owner whose business is renting houses.

FIGURE 1.1
SHARES IN GDP (1986)

- Agriculture & Fishing
- Construction & Quarrying
- Manufacturing
- Public Sector
- Market Services & Property Income

4.4%   4.1%   29.2%   41.4%   20.9%
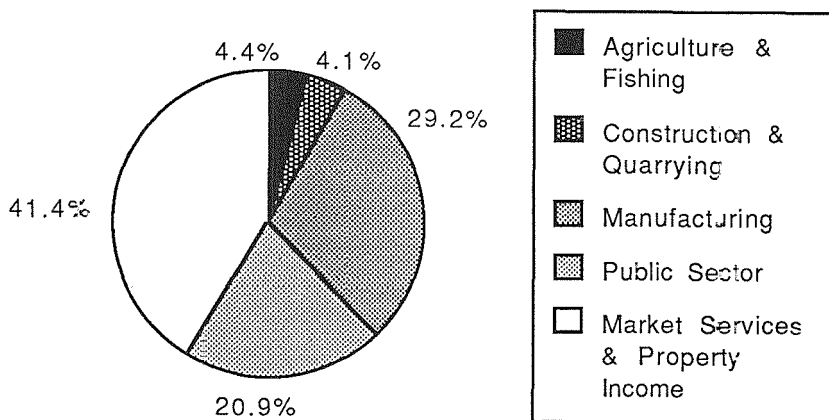
The Income Side

The method just described to compute GDP utilises information on value added. The same result can be obtained if we use the income method, which involves summing all the incomes of the factors of production which participated in the production of the goods and services included in GDP. Factors of production earn a variety of incomes including wages, interest, rent and profits. The sum of these incomes in any one firm represents the value added of that same firm.

Thus if one has information about the amount of factor income of all enterprises in the Maltese economy, one can compute the total value added, which, as already stated, is the domestic product at factor cost. This is shown in Table 1.2

In Table 1.2 income from employment includes pre-tax wages and salaries and insurance contributions by employers. Income from self employment covers the income of own account workers, and can be

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regarded as a reward for work and from ownership.

Table 1.2
Incomes and the Gross Domestic Product (1986)

Factor Incomes	Lm Millions	%
Income from employment	231.6	50.2
Income from self employment	87.5	18.9
Gross profits (private sector)	85.1	18.4
Gross profits (public sector)	21.1	4 6
Property income (domestic)	36.5	7 9
GDP at factor cost	461.8	100.0

Source: National Accounts of the Maltese Islands, Table 10.

Gross profits in the private sector cover the income generated by companies other than employment income. Part of this is distributed as dividends. Gross trading profits in the public sector cover the income, (other than employment income) generated by institutions such as Enemalta, Public Lottc, Posts, Water Works and M.D.C. As before, domestic property income represents the net receipts from ownership of land and building and interest earned from domestic sources.

FIGURE 1.2
FACTOR INCOME SHARES IN GDP (1986)

Employment Income
Self Employment Income
Private Gross Profits
Government Profits
Property Income

7.9%
4.6%
18.2%
18.9%
50.2%
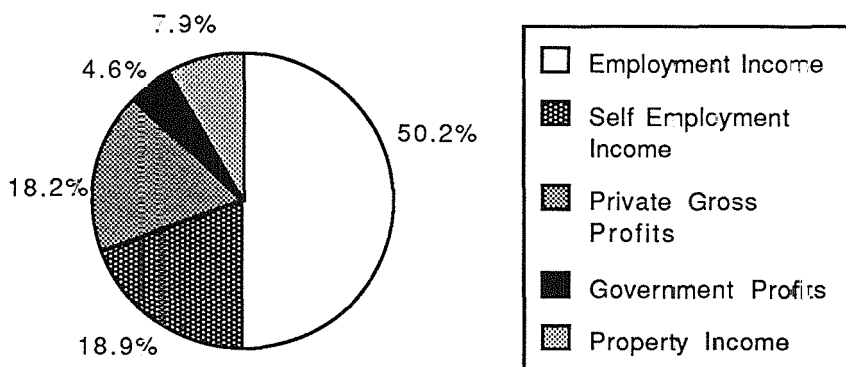
The Expenditure Side

Data for the output and income methods of measuring the gross domestic product are obtained from the same sources, namely from the firms producing the goods and services in question. An independent method of computing the gross domestic product is by measuring expenditures, which can be grouped under four headings namely (1) expenditure on consumer goods and services (2) government current expenditure (3) expenditure on investment in construction and machinery and (4) expenditure on exports. The sum of these expenditures would show the value of the goods and services sold by domestic productive units.

Some goods are not sold, but stocked in the form of finished products and work in progress. Thus in order to measure what the Maltese firms actually produced in any one year, from the expenditures just mentioned, one has to deduct any sales sold from the previous year's stock and add any unsold stock produced in the current year.

The sum of expenditures on goods and services plus the changes in stock constitute what is known as *total final expenditure*. If exports are excluded, the sum would make up what is known as *domestic expenditure.*

Total final expenditure does not represent the value added of Maltese firms but the total value of final sales, which contain an import content. If imports are deducted from the total final expenditure, what remains is the gross domestic product at *market prices* , as shown in Table 1.3. The term "at market prices" indicates that the value taken is that at which the goods are sold, and therefore includes net expenditure taxes.

Table 1.3
GDP by Category of Expenditures (1986)

Expenditure	Lm Millions	%
Consumers' expenditure (market prices)	347.9	37.2
Government current expenditure	89.5	9.6
Gross Fixed investment:		
Expenditure on machinery	44.8	4.8
Expenditure on construction	77.5	8.3
Changes in stocks	8.2	0.9
Exports of goods and services	365.7	39.2
Total final expenditure	933.6	100.0
Less imports of goods and services	421.7	45.2
GDP at market prices	511.9	54.8

Source: National Accounts of the Maltese Islands (table 9)

It can be seen that the GDP as measured in Table 1.3 is somewhat higher than GDP as measured in Tables 1.1 and 1.2. The reason for this is that, as already stated, Table 1.3 measures GDP *at market values,* whereas the other tables measure GDP at *factor cost.*

FIGURE 1.3
SHARES IN TOTAL FINAL EXPENDITURE (1986)
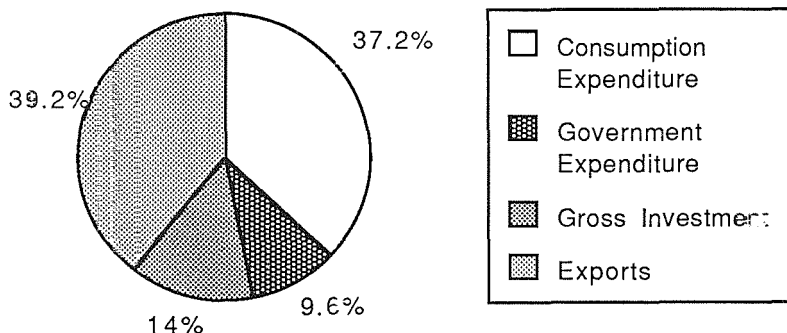
Some Definitions

As noted before the word *gross* indicates that value added is computed without deducting depreciation, which is an allowance for wear and tear of capital goods. If depreciation, or *capital consumption,* as it is sometimes called, is deducted from the gross domestic product the result would be the *net domestic product.*

When consumers buy goods and services, the price paid sometimes includes a mark-up to cover expenditure taxes imposed by the government. This mark-up is not a payment for a factor of production, but an amount over and above value added. On the other hand, sometimes consumer prices are subsidised, in which case what the consumer pays is less than the actual value of the good.

If expenditure taxes are added to, and subsidies subtracted from GDP at factor cost, the result would be GDP at *market prices.* Expenditure taxes less subsidies may be referred to as net expenditure taxes. Thus:

GDP at market prices = GDP at factor cost + net expenditure taxes.

In 1986, expenditure taxes amounted to Lm54.9 million and subsidies

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amounted to Lm4.8 million, so that net expenditure taxes in Malta amounted to Lm50.1 million. This accounts for the difference between GDP at factor cost amounting to Lm461.8 million and GDP at market prices amounting to Lm511.9 million.

The term at *factor cost*, indicates that the value added is measured as the cost of employing factors of production (land, labour, capital and entrepreneurship) in order to produce the goods and services in question.

Some households, firms and state institutions earn income from foreign investments. On the other hand, foreigners earn income from investment in Malta. If the net income from foreign investment is added to the gross *domestic* product, the result would be gross *national* product (GNP). Thus

GNP=GDP + Net Investment Income from Abroad

In 1986, net investment income from abroad amounted to Lm28.1 million, and therefore, given that GDP at factor cost in 1986 was Lm461.8 million, GNP at factor cost in that year was Lm489.8 million. GNP at market prices amounted to Lm537.9 million.

Another term used in the national accounts is *national income*. This is another way of saying net national product at factor cost. Thus:

NATIONAL INCOME = GNP at factor cost less Depreciation

In other words, national income measures all factor income of Maltese firms or households, from domestic or foreign sources, after deducting depreciation (since the latter is not really a factor income, but an allowance for wear and tear of capital stock). In 1986 depreciation amounted to Lm23.2 million and GNP at factor cost amounted to Lm489.8 million. The national income for 1986 therefore amounted to Lm466.6.

National Income and Personal Income

As explained above, national income is the sum of incomes earned by factors of production, namely labour, capital, land and entrepreneurship, as rewards for their participation in the production of goods and services. However, this income is not all earned by households, since a fraction of it is retained by private companies and by the public authorities. On the other hand, households earn incomes which do not form part of national income, since some types of incomes are not rewards for participation in the production of goods and services. Such incomes include transfers from the government, such as children's allowances, and transfers from abroad, such as foreign pensions. Personal income is therefore not the same as

national income, since the former includes incomes which are not part of national income and the latter includes incomes which do not actually flow to households.

For example in 1986, national income amounted to Lm466.6 million. Of this, Lm44.1 million were retained by companies (in the form of pre-tax undistributed profits) and Lm52.4 million by the public authorities (in the form of profits, rents, dividends and interests). Thus the amount which actually flowed to households amounted to Lm370.1 million. Over and above these factor incomes, households received government transfer payments amounting to Lm66.4 million, and transfers from abroad amounting to Lm13.8 million. Thus total personal income amounted to Lm450.3. This indirect approach of measuring personal income is shown in Table 1.4 (a).

Table 1.4
Three Ways of Measuring Personal Income
(1986 data in Lm Millions)

(a) Indirectly:		(b) Directly:		(c) Expenditures:	
National Income	466.6	Employment	231.6	Consumption	347.9
Less retained:		Self-employment	84.1	Income tax	61.1
by companies	44.1	Rents, interest		*Add transfers:*	
by government	52.4	dividends etc.	54.4	To government	5.6
Net flows to		Total factor		To abroad	2.3
households	370.1	Income	370.1	Total	
Add transfers:		*Add transfers:*		expenditure:	416.9
From government	66.4	From government	66.4	Add personal	
From abroad	13.8	From abroad	13.8	savings	33.4
TOTAL	**450.3**	**TOTAL**	**450.3**	**TOTAL**	**450.3**

Source: National Accounts of the Maltese Islands.

Personal income can also be computed directly by measuring the incomes that actually flow to households in the form of wages, self-employment incomes, interest, rent, dividends, transfers and so on. This is shown in Table 1.4 (b).

A third method of computing personal income is by measuring personal expenditure and adding personal tax and personal savings as shown in Table 1.4 (c). This method does not actually show how much personal income is earned, but how it is disposed of. As can be seen in Table 1.4 these three methods give exactly the same results.

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FIGURE 1.4
PERSONAL AND NATIONAL INCOME
1986
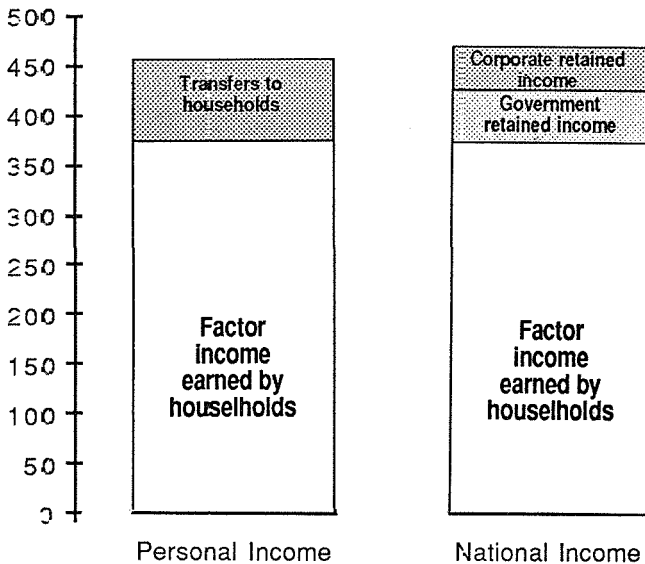
Figure 1.4 shows the relationship between personal income and national income. It can be seen that factor income earned by households is common to both. Personal income also includes transfers . National income excludes transfers but includes factor income retained by companies and state enterprises.

Real and Nominal GNP

Changes in the values of GNP are often used to measure growth rates of an economy. A problem that arises when comparing values of GNP over time is that these values may increase or decrease due to changes in the prices of goods and services and not due to changes in the physical quantities of goods and services produced.

The gross national product is composed of different goods and services, and as shown above, it is computed by adding money values, since adding physical quantities would not be meaningful. For instance, it would not make much sense to add 1000 pairs of shoes with 100 hours of retail services. However, changes in physical quantities may be approximated by removing the effect of price changes over time.

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Thus for example, if it is known that between 1973 and 1986 prices had doubled and the value of GNP had quadrupled, we say that GNP had quadrupled at *current prices* and only doubled at *constant 1973 prices*. When an economic variable is measured at current prices, it is expressed *in nominal terms,* whereas when measured at constant prices it is expressed in *real terms.*

The price index used to measure variables in real terms is called a *deflator*, and the process of eliminating price changes to compute variables in real terms is called deflation. Therefore, if one has information about the change in prices of all goods and services one can express GNP in real terms by deflating the nominal value of GNP by its price index. Table 1.5 gives an example of how the 1986 nominal value of GNP is deflated in order to obtain real constant 1973 prices) GNP.

Table 1.5
Nominal and Real GNP (Lm Millions)

	1973	1986
GNP at current prices	Lm123.3	Lm539.9
GDP implicit deflator (1973 base)	100.0	173.2
GDP at constant (1973) prices	Lm123.3	Lm311.7

Source: National Accounts of the Maltese Islands, Tables A and B

Table 1.5 shows that the average price of goods and services produced in Malta increased by 73.2% between 1973 and 1986. This is known from a price index, called the GNP implicit deflator, which can be computed from the National Accounts of the Maltese Islands (Tables A and B). Thus if this average price is assigned a value of 100 in 1973, its value would have reached 173.2 in 1986. During the same period GNP at current market prices increased from Lm123.3 million to Lm539.9 million i.e. it more than quadrupled in 14 years.

However this increase was partly caused by the 73.2% increase in the prices of goods and services. To eliminate the effect of price changes, the 1986 current prices value of GNP is divided (or deflated) by the price index of 173.2% and the result is the 1986 value of GNP at 1973 prices which is Lm311.7 million. In other words the increase in GNP at constant prices between 1973 and 1986 would be much less than the increase in GNP at current prices.

The Maltese National Accounts (Tables A and B) contain information about price indices of different expenditures in the Gross National Product. There are price indices for consumption expenditure, government expendi-

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ture, investment, exports, imports and property income from abroad. These indices are constructed separately, and in the case of Malta, they are given with base year 1973=100. The GNP implicit deflator just mentioned is computed on the basis of information regarding the other price indices and this is why it is referred to as *implicit.*

FIGURE 1.5
GDP AT CURRENT & CONSTANT PRICES

Lm Million

-□- Current Prices

-●- Constant (1973) Prices
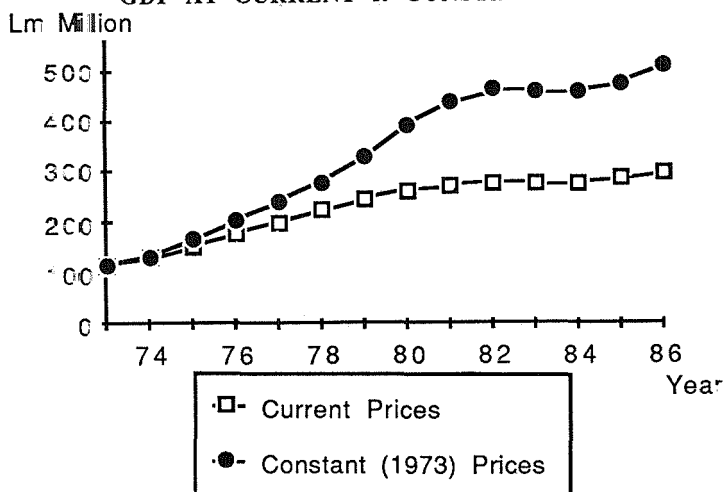
Some Refinements.

Only those market transactions that add to the flow of goods and services in the current period (usually one year) are included in the computation of GNP and therefore in national income. Thus goods produced last year and sold this year do not form part of this year's GNP. On the other hand, goods produced but not sold this year should be included in GNP. This is why the expenditure side of measured GNP includes an adjustment for changes in inventories.

Non-productive transactions are excluded from GNP. These are classified under two headings, namely (1) purely financial transactions and (2) second hand sales. Purely financial transactions include government and private sector payments (such as grants, gifts and inheritance) and security transactions (involving gains or losses from changes in the value of property, bonds or equities).

GNP excludes non-market activity, such as goods and services produced

in the household by family members, including housework, do-it-yourself jobs, and child rearing. On the other hand, the computation of GNP includes some transactions which are not carried out in direct monetary form, such as payments in kind for activities associated with market production, rental value of owner occupied houses and employers' contribution to social security.

Another important consideration in this respect is that GNP does not cover transactions connected with what is referred to as the *underground economy*. For example, some self-employed persons may not report all their activity so as to avoid taxation.

There are many shortcomings associated with using GNP as a measure of national output, income and welfare. For example, the fact that the GNP excludes some activities which result in an increase in the production of goods and services indicates that this macroeconomic aggregate does not measure the country's output and income in a comprehensive way.

Also, GNP does not distinguish between activities that add to a country's well-being (such as production of health foods) and those that may decrease it (such as the production of cigarettes). Moreover, GNP figures do not say anything about who is enjoying the income that is generated. For example, certain oil-exporting countries have very high GNPs in relation to their population, but income is very unevenly distributed.

All this does not however mean the GNP statistics are useless. They are very useful, though not necessarily very precise indicators of economic growth or decline of a particular country over time. Sometimes GNP per-capita statistics are used, together with other indicators, to compare the state of development of different countries.

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2

THE STRUCTURE OF THE ECONOMIC SECTORS AND BUSINESS ORGANISTION

As explained in the previous chapter, an economy can be divided into sectors. In this chapter, the most important economic sectors of the Maltese economy will be briefly described. The chapter also contains a brief description of business organisation in Malta.

It should be noted at the outset that there are no hard and fast rules for classifying certain economic activities in sectors. For example, in Malta, banking and transport services were up to 1987 considered as forming part of market services, even though the government had a direct interest in these activities. In the Economic Survey (1987, p.25) these services were classified under "Public Sector". Similarly the drydocks, which should form part of the manufacturing sector, is classified under "other production and trade" in the Input Output tables of the National Accounts.

The Manufacturing Sector.

Table 2.1 presents 1985 data pertaining to the contribution of different industries composing the manufacturing sector, in terms of number of establishments, gainfully occupied persons, gross output, and value-added. Ship-building and ship repair are excluded, and these economic activities will be treated separately.

Although the data shown pertains to 1985, the relative contributions and characteristics of different industries are by and large representative of the period 1981-1986. Table 2.1 shows that the most important manufacturing industry in terms of output and employment was clothing. It employed about 29% of those gainfully occupied in the manufacturing sector and produced about 24% of net output. The next biggest industry was machinery, which employed about 11% of the total gainfully occupied and produced about 15% of net output of the manufacturing sector. Other relatively big manufacturing industries are food, beverages, wood and cork, and printing/publishing.

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Table 2.1
The Manufacturing Sector in 1985

Industry	Number of Establish-ments	Number of Gainfully Occupied	Gross Output (Lm Millions)	Net Output
Food	334	2221	42.8	11.8
Beverage	30	1175	16.8	10.4
Tobacco	5	782	14.8	3.5
Textiles	22	1094	6.8	3.9
Clothing	143	7741	66.8	30.2
Footwear	22	1288	9.4	4.0
Wood/Cork/Furniture	375	1788	8.7	4.6
Printing/Publishing	76	1577	18.5	9.3
Leather	7	101	0.6	0.4
Chemicals	38	530	8.9	3.8
Plastics	16	420	3.8	2.1
Cement, Tiles etc	83	892	13.0	4.0
Metal	135	1198	12.4	4.7
Machinery	59	2911	49.9	18.4
Rubber/Transport (*)	44	1139	9.1	5.0
Other	99	1908	21.7	8.1
TOTAL	1492	26765	304.0	124.2

(*) excludes shipbuilding and ship repair

Source: Census of Production

A comparison between the number of establishments in different manufacturing industries indicates that, on average, employment per establishment was approximately 18 persons which means that in general manufacturing firms tended to be rather small. In fact, according to published statistics, in 1985 about 75% of all establishments employed 5 persons or less each (see Table 6 in the Industry Section of the *Annual Abstract of Statistics, 1986).*

However some industries are characterised by larger establishments than others. The food and the wood industries, for example, consisted of a large number of establishments which employed an average of about 7 persons per establishment. On the other hand, in the textile, clothing, footwear and machinery industries, employment tended to be relatively large with an average of around 50 persons per establishment. The tobacco

industry employed about 130 persons per establishment.

Some industries employed more persons for a given value of net output than others. The industries with the highest net-output per head were beverages, chemicals, printing and non-metallic minerals. The industries with the lowest output per head were wood/furniture, footwear, leather and clothing.

FIGURE 2.1A
NET OUTPUT SHARES IN THE MANUFACTURING SECTOR
(1985)

Legend:
- Food, Beverages, Tobacco
- Textiles, Clothing, Footwear
- Wood, Furniture, Cork
- Printing, Publishing
- Chemicals, Plastics
- Metals, Machinery, Transport, Rubber
- Others

Values shown: 10.1%, 20.7%, 22.6%, 4.8%, 7.5%, 3.7%, 30.7%
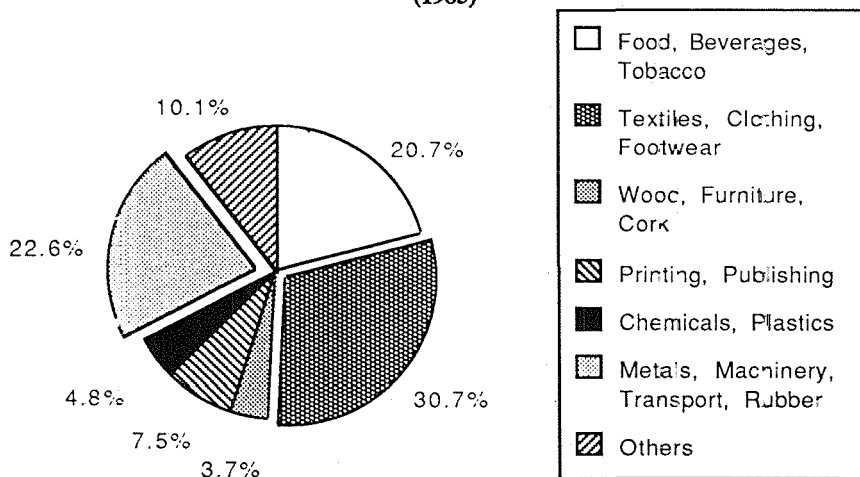
The percentage of gross output that was purchased from outside a given industry (mostly imported from abroad) differed between different industries. On average out of Lm100 produced, only about Lm40 were produced by the industries themselves. The industries with the highest value added content were leather (63%), beverages (62%), textiles (57%), and plastics (54%). Those with the lowest value added content were tobacco (24%) and food (28%).

Manufacturing industries also differ from each other with respect to their export orientation. The industries which export the highest proportion of gross output are clothing, textiles, and electrical machinery. In 1985, these exported around 90% of their gross output. On the other hand, the beverages, furniture, food, and non-metallic minerals (cement, tiles, etc.) are domestically oriented, and export a very small proportion of their gross output.

Another feature which distinguishes some manufacturing industries from others relates to female employment. The clothing industry is by far the most important employer of female workers and during the eighties,

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the number exceeded 6000, about 75% of total employment in that industry. Other industries which employed a considerable number of female workers are the electrical machinery, tobacco and chemical industries.

FIGURE 2.1B
EMPLOYMENT SHARES IN THE MANUFACTURING SECTOR
(1985)
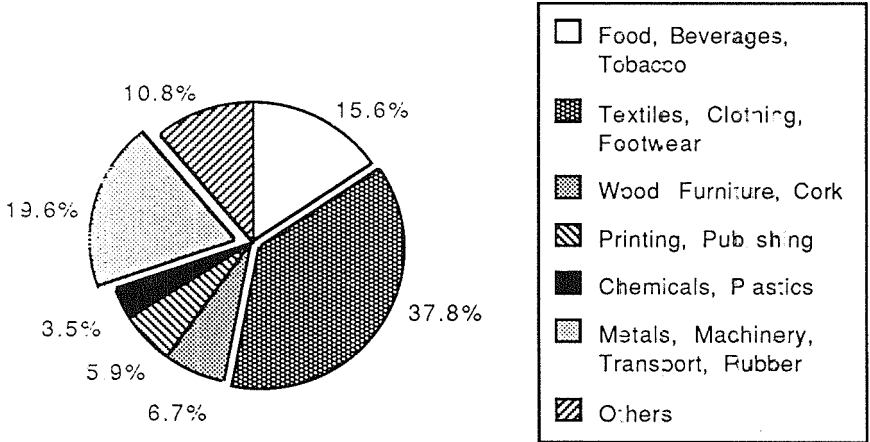
As noted, shiprepair and shipbuilding are not included in the statistics just described. The reason for this is that manufacturing statistics, as published in the Census of Production, exclude data on these economic activities. During the eighties employment at the Malta Drydocks and at the Malta Shipbuilding Company exceeded 5000 persons (in 1987 the number was about 6000 persons). Most of these were skilled male employees. Shiprepair and shipbuilding in Malta are export oriented, and are important sources of foreign exchange earnings.

Taken as a whole the manufacturing sector (including shipbuilding and shiprepair) contributed an average of 30% to GDP and about the same proportion to total gainful employment during the first half of the eighties. The most important changes in the structure of the manufacturing sector during the past three decades were mostly associated with the growth of clothing/textile/footwear and the machinery industries. In 1960, clothing, textiles and footwear accounted for only about 10% of total manufacturing net output. This percentage doubled by 1965 and reached over 30% during the seventies and eighties. The machinery industry produced only about 3% of the manufacturing net output in 1960. This percentage increased to about 8% during the seventies and reached about 13% during the eighties. These changes in the structure of the manufacturing sector have given rise

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to an increase in female employment and in merchandise exports, since these industries tend to employ a relatively large number of female workers, and a large proportion of their output is exported.

Market Services

Market services can be considered as one huge sector with four sub-sections namely: (1) transport and communications (2) retail and wholesale trades (3) banking and financial services and (4) business, recreation and personal services.

FIGURE 2.2A
MARKET SERVICES: NET OUTPUT SHARES (1986)

9.1%   35.4%

18.7%

13.7%   13%

Retail & Wholesale Trades

Banking, Insurance, Real Estate

Transport, Communications

Private & Other Services

Property Income
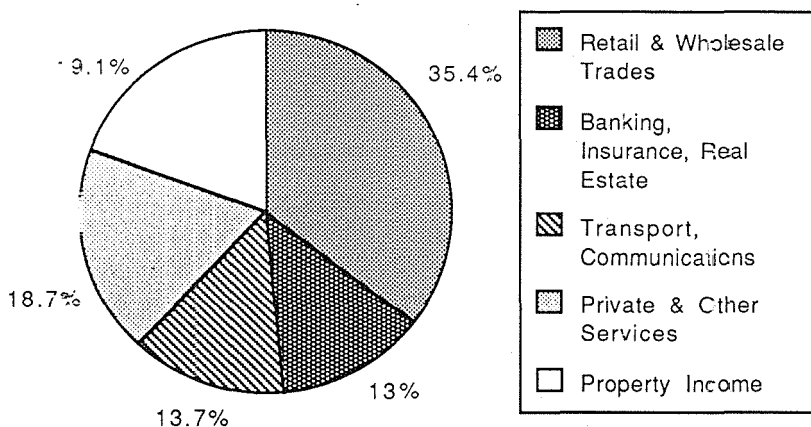
On average, during the first half of the eighties, market services contributed around 33% to GDP and to total gainful employment. About 11,000 persons were employed in wholesale and retail trades, about 3,000 in banks etc., about 8,000 in transport and communications and about 14,000 in private services (including those associated with tourism such as hotel and catering services). About a fourth of the gainfully employed persons in market services were females.

The percentage contribution of the market services sector to GDP and to total employment remained relatively stable during the past three decades. However the structure of this sector has changed. In particular, tourist related services have taken a larger share of market services.

The tourist industry is a very important one in Malta, especially because of its positive impact on the balance of payments. In 1986, the gross foreign

FIGURE 2.2B
MARKET SERVICES: EMPLOYMENT SHARES (1986)

31.7%
36.9%
9.6%
21.8%

- ▨ Retail & Wholesa e Trades
- ▨ Banking, Insuranse, Real Estate
- ▨ Transport & Communications
- ▨ Private & Other Services
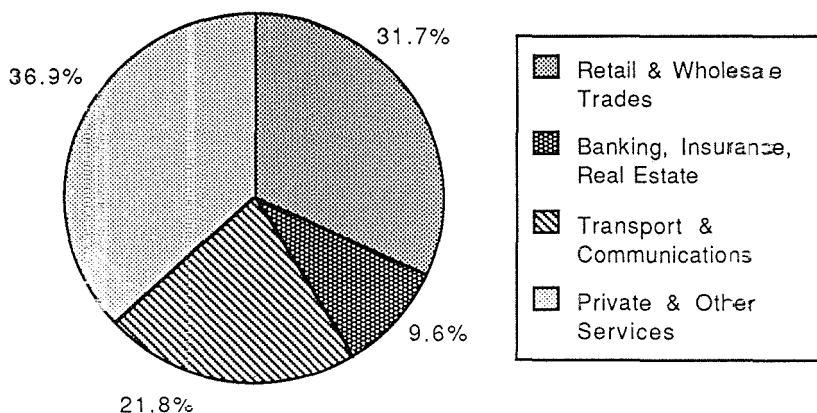
exchange inflows amounted to just under Lm80 million, or to about 22% of all earnings from exports of goods and services. The tourist industry is also important because it provides employment to a large number of Maltese workers. At the end of 1986, the number of persons employed in hotels and holiday complexes amounted to 4354 (increasing to 4926 in September 1987). Tourism also offered employment in other areas of the economy,

FIGURE 2.3
TOURIST ARRIVALS BY NATIONALITY (1986)

13.4%
4%
4%
4.4%
6.4%
10.4%
57.4%

- ☐ Britain
- ▨ West Germany
- ▨ Italy
- ▨ France
- ■ Scandinavia
- ▨ Libya
- ▨ Others

FIGURE 2.4
MONTHLY TOURIST ARRIVALS 1986)
Thousancs

FIGURE 2.4
MONTHLY TOURIST ARRIVALS 1986)

Thousancs

```
90
80
70
60
50
40
30
20
10
 0
    JAN  FEB  MAR  APR  MAY  JUN  JUL  AUG  SEP  OCT  NOV  DEC
```
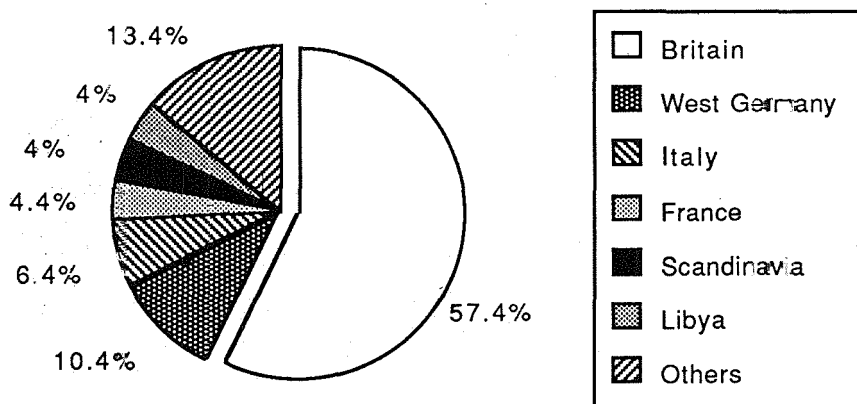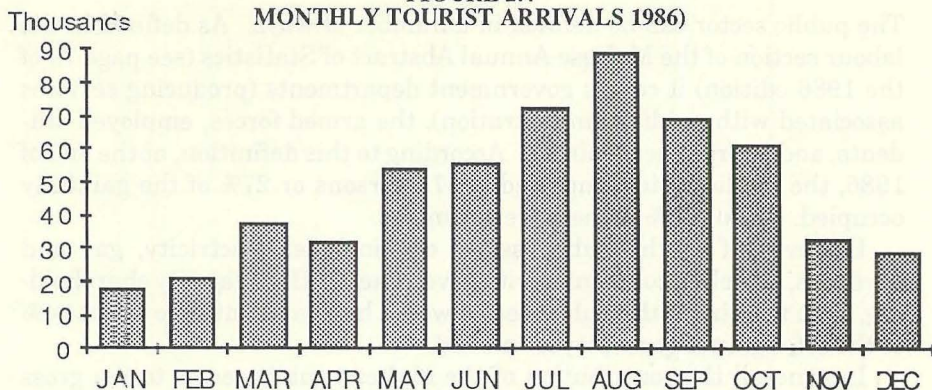
particularly in the catering trades, and more indirectly, in the banking industry and retail trades.

The Maltese tourist industry is characterised by its seasonal nature (about 50% of tourists come during the Summer months), and by the fact that a large proportion of tourists come from the United Kingdom.

FIGURE 2.5
TOURIST ARRIVALS & INCOME FROM TOURISM (1960-1986)

Thousand Persons

```
1000
 800        ☒  ARRIVALS
 600        ●  INCOME
 400
 200
   0
      60   62   64   66   68   70   72   74   76   78   80   82   84   86
```

Lm Million
```
100
 80
 60
 40
 20
```
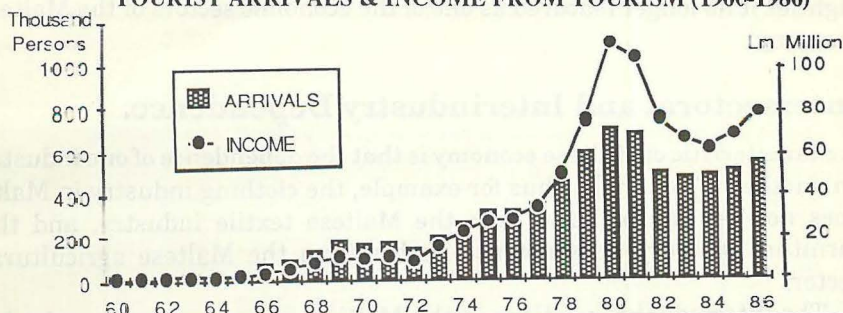
Construction and Agriculture.

Other sectors in the Maltese economy include construction and quarrying, and agriculture and fishing. Compared to manufacturing and market services these are relatively small sectors. During the first half of the eighties, these sectors contributed about 12% to gainful employment and 9% to GDP. Their contribution, taken as an aggregate, has however tended to decline during the past three decades. Two characteristics of these sectors are that they do not employ many female workers and that they are domestically oriented.

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The Public Sector.

The public sector can be defined in a number of ways. As defined in the labour section of the Maltese Annual Abstract of Statistics (see page 79 of the 1986 edition) it covers government departments (producing services associated with public administration), the armed forces, employed students, and apprentices/trainees. According to this definition, at the end of 1986, the public sector employed 31279 persons or 27% of the gainfully occupied. About 20% of these were females.

However, if in the public sector one includes electricity, gas and drydocks, as well as companies with government/MDC majority shareholding, then the size of the public sector would have amounted to about 34% of the total gainfully employed in 1986.

In general, the contribution of the Maltese public sector to the gross domestic product tended to be significantly lower than its contribution to gainful employment, indicating that output per unit of labour in this sector tends to be lower than that of private industry.

Up to 1979, the Maltese economy contained an important sector, producing services for the British government, associated with the presence of the British forces in Malta. During the first half of the sixties, this sector contributed about 15% to the GDP and to total gainful employment. The contribution of British services was gradually phased out, and in the eighties it no longer featured as one of the economic sectors of the Maltese economy.

Intersectoral and Interindustry Dependence.

A characteristic of Maltese economy is that the dependence of one industry on another is minimal. Thus for example, the clothing industry in Malta does not use much fabric from the Maltese textile industry, and the furniture industry does not use timber from the Maltese agricultural sector.

The interindustry relations in the Maltese economy are shown in the Input-Output table, published in the National Accounts of the Maltese Islands. This table shows the amount of sales by one particular industry bought by five different categories of purchasers namely (1) other industries, in the form of inputs (2) persons in the form of consumption (3) the government (4) investors (machinery and buildings) and (5) foreigners (exports). Thus for example, in 1985, the agriculture sector's output was valued at Lm38.4 million. Of this, Lm8.1 million was sold to the food, beverage, leather and other industries as inputs, Lm26.5 million was sold to persons, Lm0.5 million to the government, Lm0.9 million was kept in the form of stocks, and Lm2.5 was million exported. (See table 12 of the

National Accounts for 1986).

The Input-Output table also shows the cost composition of gross output produced by Maltese industries. Thus for example, to produce the Lm38.4 million in 1985, producers in the agriculture sector bought Lm12.5 million worth of input from the food industry and Lm2.8 million from other Maltese industries. Lm2.9 million were imported directly for agricultural production, and Lm1.8 million were paid to hire employees. Income from self-employment and gross profit accounted for Lm18.2 million.

When all Maltese industries are considered, one finds that the direct import content in these industries is about 33% of their input requirements to produce the final output.

Over and above these direct import requirements, one has to consider the import content of the intermediate inputs bought by some domestic industries from other domestic industries. The total import content required for production is therefore the sum of the direct and the indirect (interindustry) import requirements. In 1985, the total import content was around 47%. Again this percentage may change from year to year, but it characterises Malta's dependence on imports.

Forms of Business Organisation

The simplest form of business organisation is the sole proprietor, where the ownership and control of the business belongs to one person. A major disadvantage of this form of organisation is that a single person may find it difficult to raise enough capital to expand the business, and such enterprises therefore tend to be very small. Another disadvantage is that the owner is personally responsible for the debts incurred by the business. In Malta, sole proprietorship occurs mostly in the retail trades and agricultural production.

Two or more persons may join together to form a business partnership. In Malta the legal framework regulating private sector business partnerships is the Commercial Partnership Ordinance (1962). The ordinance provides for three type of partnerships, namely *en nom collectif* (ordinary unlimited partnership), *en commandite* (with some but not all partners enjoying limited liability) and the limited liability company *anonyme*. In Maltese law a commercial partnership is regarded as a legal entity separate from its owners. In the case of the limited liability company the debts and other obligations of the company are not the responsibility of the owners. The liability of a shareholder is limited to the amount of capital that he or she contributes or promises to contribute.

Of all the three types of business organisations just described, the limited liability company is the most popular in Malta. At the end of 1986

there were over 6,000 registered limited liability companies whereas the number of partnership *en nom collectif* was 283. There were only 7 partnerships *en commandite*.

The advantages of limited liability companies are various, and include that capital becomes easier to raise due to the reduced risk of the individual investor and that transfer of ownership is easier than in other forms of business organisations. In Malta there are also tax advantages, since the rate of tax chargeable on company profits is 32.5%, a rate which may be lower than that chargeable on personal income of many businessmen.

There are two different types of limited liability companies in Malta, namely public and private companies. The most important difference between the two is that private companies have to restrict the number of shareholders and are not permitted to offer their shares for sale to the general public. Private companies in Malta are mostly *exempt*, that is they are not required to submit annual accounts to the Registrar of Partnerships, so that such companies can enjoy a degree of secrecy as to their financial reports.

Another form of business organisation is the cooperative society. A characteristic of cooperative societies is that an individual member is not allowed to hold a very large proportion of the share capital, and that each member has a single vote, irrespective of the amount of share capital held. This renders a cooperative society more democratic than a limited liability company, where the voting strength depends on the shareholding strength. Another feature of cooperatives is that they try to harness the collective talents and skills of their members in an attempt to enhance the well-being of the members themselves.

In England, where the cooperative movement has had its roots, consumer cooperatives are owned by those of their consumers who pay a specified amount of the capital of the business. Dividends are distributed in accordance with the purchases of the members. In Malta, cooperatives are regulated in terms of the Cooperative Societies Act of 1978. Up to the end of 1986 there were 21 cooperatives with a total membership of about 3400 persons. Most of these were services cooperatives, operating in activities connected with agriculture.

In Malta there are a number of business organisations directly or indirectly controlled by the government. A common form of public sector business organisation is the *public corporation*, where the minister is empowered to give directives of a general nature, and a board, appointed by the minister, is entrusted with the day to day running of the enterprise. Some public corporations are expected to charge for the services they offer so as to cover all or part of their costs. Public corporations in Malta include the Central Bank and TeleMalta Corporation .

Certain public enterprises are run just like an ordinary private company, and are therefore subject to the Commercial Partnership Ordinance. They differ from private businesses in that the majority shareholding is owned by the government. Two examples of this type of set-up are the Mid-Med Bank which is 100% owned by the government and the Bank of Valletta, where the government and MDC shareholding amounts to 70% of the total.

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Main Statistical Sources:

Annual Abstract of Statistics, Central Office of Statistics, Malta.

Census of Production, Central Office of Statistics, Malta.

Economic Survey, Office of the Prime Minister, Malta.

Relevant Legislation:

Commercial Partnership Ordinance, 1962.

Cooperative Societies Act, 1978.

3

THE MALTESE POPULATION

The most important source of population data is the Census, which is taken at time intervals, spanning a number of years. The first regular census was carried out in 1842. The following table shows the most important changes in the size and sex-composition of the Maltese population as enumerated in all the censuses since that date.

Table 3.1
Population 1842 - 1985

YEAR	TOTAL	MALES	FEMALES
1842	114499	55168	59331
1851	123469	60456	63040
1861	134055	66270	67785
1871	141775	69952	71823
1881	149782	73430	76352
1891	165037	81316	82721
1901	184742	91994	92748
1911	211564	105601	105963
1921	212258	102745	109513
1931	241621	117457	124164
1948	305991	150665	155326
1957	319620	153108	166512
1967	314216	150598	163618
1985	345418	169832	175586

Source: Census '85

Table 3.1 shows that the total population has increased between one census year and another, with the exception of 1957-1967 when the decline was caused mainly by emigration. A fall in the birth rate was also partly responsible for the population decrease between 1957 and 1967.

Table 3.1 shows also that in all census years, the female population exceeded the male population. In 1957 and 1967 the female population accounted for about 52% of the total – the highest percentage for all census years. This happened in spite of the fact that more males than females were born. There are several reasons for this. The most important is that more males than females emigrated in the past. Another factor is that females tend to live longer.

FIGURE 3.1
POPULATION AS AT CENSUS YEARS
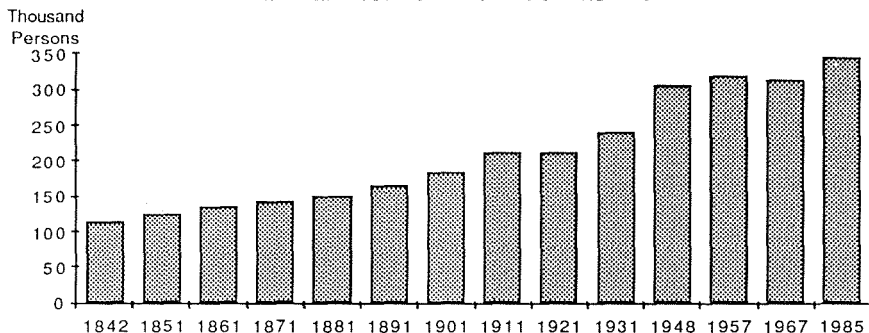
Why Population Size Changes

The size of the population changes due to two main reasons namely natural changes (births less deaths) and net emigration.

During the past thirty years the birth rate has shown a tendency to decrease. It was about 30 per thousand population in the early fifties, decreased to about 23 per thousand during the first half of the sixties and to about 17 per thousand in the seventies. It has remained approximately at this level ever since. According to the UN population prospects, in the last five years of this century the Maltese crude birth rate will go down to about 14 per thousand population – one of the lowest birth rates in Europe.

Death rates have remained relatively stable, averaging just under 10 per thousand during the past three decades. Thus the *natural increase* of the Maltese population, defined as the difference between the birth and the death rates, was about 20 per thousand during the first half of the fifties and decreased to about 7 per thousand during the eighties.

Emigration, mostly to Australia, UK and Canada, reached very high peaks during the first half of the fifties and the first half of the sixties. This partially offset the high birth rates during these periods. Since 1975 the number of returned migrants tended to be higher than the number of emigrants.

FIGURE 3.2
NATURAL RATE OF POPULATION CHANGE

FIGURE 3.2
NATURAL RATE OF POPULATION CHANGE
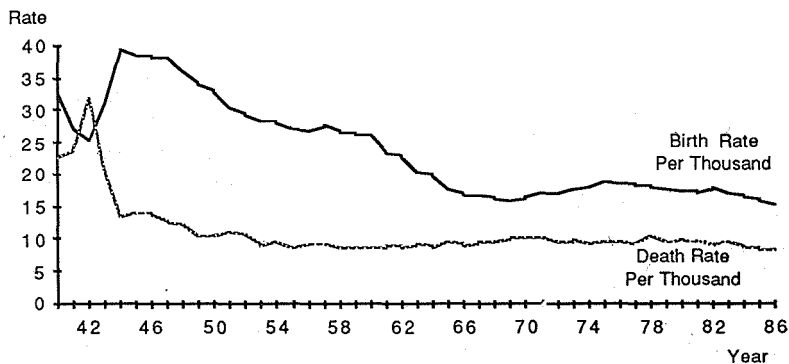
The natural rate of population increase is the difference between the birth rate and the death rate. The diagram shows that the Maltese population tended to increase at a decreasing rate between 1944 and the late sixties and to increase at a more stable rate during the seventies and the eighties.

Current trends in birth, death and net migration rates considered together would seem to indicate that at present the growth tendency of the Maltese population is around 1% per annum.

FIGURE 3.3
POST-WAR MIGRATION
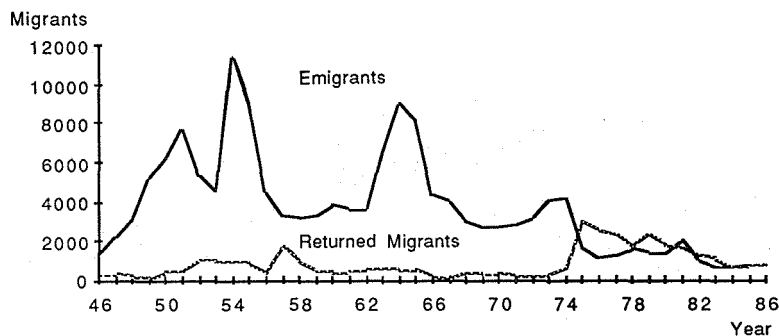
The Age structure of the Maltese Population

Table 3.2 shows how certain age groupings changed in percentage terms since 1957. It can be seen that there was a marked increase in the proportion of older persons, and a marked decrease in the proportion of younger persons. The 15 to 64 age bracket has tended to increase.

Table 3.2
Percentage Age Distribution of Population

Year	0-15	15-24	24-44	45-64	65+	Total
1957	37.5	14.9	23.2	17.7	6.8	100
1967	29.8	30.2	23.3	18.2	8.4	100
1985	24.1	14.8	31.4	19.8	9.9	100

Source: Census '85

The age structure of the population has implications regarding a number of macroeconomic variables, such as the size of the potential labour force, and the dependency ratio (i.e. the proportion of the very young and very old depending on the working age population).

The Maltese population is an ageing population, in the sense that the old segment of the population is tending to increase as shown in Table 3.2. Another indicator of an ageing population is the mean age, which in 1948 was 27 years and rose to 33 years in 1985. Population projections indicate that this tendency will continue in future years. One implication of this is that a larger share of income will be transferred to finance pensions and other welfare payments.

FIGURE 3.4
AGE STRUCTURE OF THE MALTESE POPULATION (CENSUS 1985)
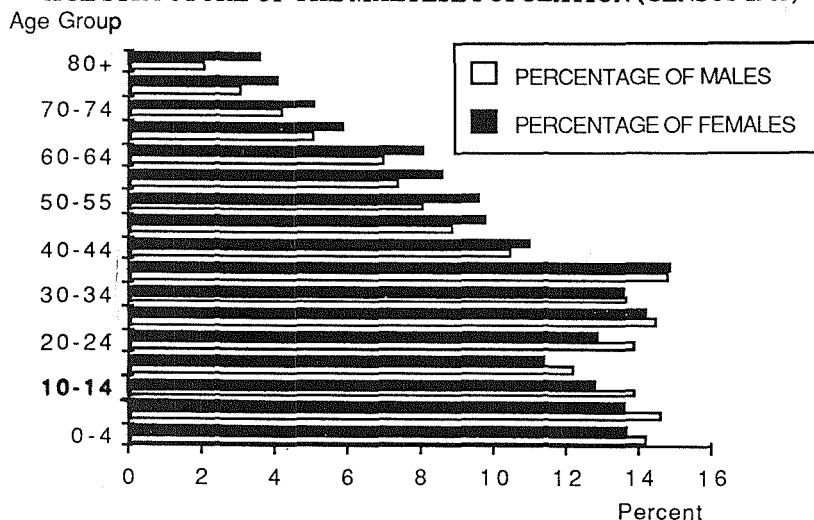
The diagram shows that, in percentage terms, the male population tends to be higher than the female population for younger age groups, and lower for older age groups.

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Geographical Distribution

Table 3.3 shows the geographical distribution of the Maltese population since 1957. In the table, the inner harbour region comprises Cottonera, Paola, Marsa, Hamrun, Floriana, Valletta, Msida, Gzira, Sliema and other locations in that region. The outer harbour region comprises Zabbar, Fgura, Tarxien, Luqa, Qormi, St. Venera, B'Kara, San Gwann and St. Julians. The South East includes towns and villages around Zejtun and Zurrieq, whereas the West covers the region around Rabat and Zebbug. The North includes the region between Gharghur and Mellieha.

Table 3.3
Population Distribution by Region

Region	1957		1967		1985	
	Number	%	Number	%	Number	%
Inner Harbour	126114	39.5	118372	37.7	101963	29.5
Outer Harbour	69480	21.7	74567	23.7	98610	28.6
South East	36854	11.5	35224	11.2	42475	12.3
West	36196	11.3	36142	11.5	44580	12.9
North	23375	7.3	23933	7.6	32108	9.3
Gozo	27601	8.6	25978	8.3	25682	7.4
Total	319610	100.0	314216	100.0	345418	100.0

Source: Census '85

The most important changes that have occurred between 1957 and 1967 were reductions in the inner harbour area and increases in the outer harbour area. The population of Gozo also decreased. In other regions the changes were negligible, although there were considerable internal movements within these regions, such as for example, the movement towards Mosta from other areas within the northern region.

The changes between 1967 and 1985 were more dramatic. The inner harbour area continued to decrease in population size. On the other hand, the outer harbour area experienced a pronounced increase, especially in Fgura and San Gwann. Other gains were recorded in B'Kara, Qormi and Zabbar.

As a result of these population movements, the population density within the inner harbour region decreased, whereas in other regions it tended to increase. The average density in Malta is just over a thousand persons per square kilometer (one of the highest in the world). The inner harbour region is still the most densely populated with over 6,000 persons per square kilometer. The outer harbour region comes second with about

3,000 per square kilometer, followed by the south eastern region with about 800 persons per square kilometer. Gozo has the lowest regional density with about 370 per square kilometer.

Analysed by town/village, the highest population in 1985 was in B'Kara (over 20,000), followed by Qormi (over 18,000) and Sliema (over 14,000). The highest population density is at Senglea with 23,000 per square kilometer, followed by Valletta (12,847 per square kilometer), Sliema (10,500 per square kilometer) and Hamrun (10,436 per square kilometer).

FIGURE 3.5
POPULATION DENSITIES IN MALTA AND GOZO

PERSONS PER SQUARE KILOMETRE

9000 AND OVER

6000 TO <9000

2500 TO <6000

1000 TO <2500

500 TO <1000

LESS THAN 500

0   5
kilometres

Source: Census 1985
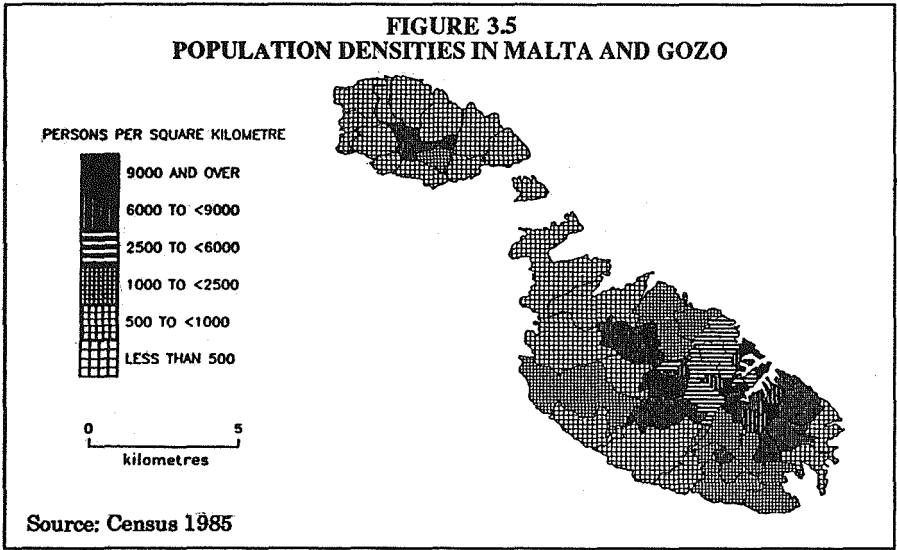
The map shows that the highest population densities in the Maltese Islands occur within the harbour areas. As expected, the lowest densities occur in the rural parts of the Maltese Islands.

Is Malta Overpopulated?

One criterion that is often used to decide whether a country is overpopulated or underpopulated is whether or not enough employment can be created for those who opt to join the labour force. For example, during the fifties and the first half of the sixties, emigration from Malta was encouraged on the grounds that Malta could not provide enough jobs for all those who sought them.

Thus, according to this criterion, overpopulation is not an absolute magnitude, but a relative one, depending on the economic conditions of the country in question. For instance, it is not impossible for the Maltese

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economy to grow to such an extent that immigrant labour would be required.

Another criterion, more useful in theory than in practice, relates to what is known as the *optimum population* size. In theory, an economy can be underpopulated or overpopulated depending on whether the contribution to national output of additional persons increases or decreases GNP per capita. It is assumed that additional people working on a given amount of resources using given methods of production, would increase GNP per capita up to the point of *optimum population size*. Additional people beyond this point would decrease GNP per capita due to diminishing returns.

The relevance of this theory to real life economics is limited due to the fact that resources and technology are constantly changing, but it sheds light on the fact that population growth has its advantages and its disadvantages. It implies additional hands for production but at the same time more mouths to feed.

In judging whether a country is overpopulated, another criterion is often resorted to, namely the constraint of land area. According to UNCTAD's *International Handbook of Trade and Development Statistics*, Malta is one of the most densely populated countries in the world. In 1985 the average population density for the world was 36 persons per square kilometer. The density in the Netherlands – the highest in Europe (excluding Gibraltar and Malta) – was 389 persons per square kilometer. The density of the Maltese islands was 1196 per square kilometer. There were only a few other countries with a population density higher than that of Malta, including (figures in brackets indicate population density per square kilometer) Hong Kong (5334), Singapore (4412), Gibraltar (3100), and Bermuda (1560).

Is Malta overpopulated in terms of land area, given these international comparisons of population density? Here again, a clear cut answer cannot be given. First of all, Malta and the other small countries with very high population densities enjoy a very respectable GNP per capita by international standards. Secondly in developed countries with relatively low population densities, most of the productive activities are carried out in highly populated urban areas, where the average population density is sometimes higher than that of Malta. This would seem to suggest that overpopulation in terms of land area is also a relative concept, especially if one keeps in mind that in developed nations, a large proportion of the population lives in urban areas with high population densities.

Population and Macroeconomics.

Population does not feature to a large extent in the study of modern mac-

roeconomics. It is generally referred to only in so far as it influences labour supply, because changes in the working age population are expected to affect the size of the labour force.

This does not however mean that the size and the characteristics of the population are not important in real life economics. Many of the macroeconomic variables described in this book are directly or indirectly affected by population changes. For example, consumption expenditure and investment expenditure on residential construction would probably increase with an increase in population size.

The age composition of the population is of importance when considering government expenditure on welfare and on education. The quality of the population, in terms of educational attainment, is of importance when considering manpower requirements in the context of *human capital.*

The geographical distribution of the population is of relevance, especially in relatively large countries, when considering market frictions associated with labour mobility.

For these reasons, economic planning is often based on projections regarding birth rates, age distribution, geographical and other statistics related to the population variable. In the case of Malta, all economic plans assigned considerable importance to demographic factors.

Further Reading:
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4

THE LABOUR MARKET

Labour is a service which is supplied by households, and demanded by firms. Demand for labour is a derived demand in that firms hire it in response to the demand for the goods and services which labour helps to produce.

If we take the Maltese economy as a whole, the demand for labour may be measured by the number of persons employed, which includes those who are hired as employees and those who are self-employed. Labour supply, on the other hand, may be measured by the labour force, which includes those who are actually employed and those registering as unemployed. For example in 1986, the number of employed persons was 115,109 and the number of unemployed persons was 8,499, so that the size of the labour Force was 123,608

Table 4.1
The Maltese Labour Force

Year	Males			Females			Total		
	Emp-loyed	Unemp-loyed	Labour Force	Emp-loyed	Unemp-loyed	Labour Force	Emp-loyed	Unemp-loyed	Labour Force
1960	73520	2464	75984	15170	1308	16478	88690	3772	92462
1970	79370	4007	83377	21790	955	22745	101160	4962	106122
1980	87744*	3455	91199	31088*	584	31672	118832	4039	122871
1986	86785	6619	93404	28324	1880	30204	115109	8499	123608

*Estimated

Source: Annual Abstract of Statistics

The total number of employed persons in Malta increased from about 89,000 in 1960 to about 115,000 in 1986. The most rapid increase occured during the second half of the sixties and the second half of the seventies. During the first half of the eighties there was a rapid decline in employment.

The female component of employment has increased at a higher rate

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then the male component, since the former almost doubled between 1960 and 1986 whereas the latter increased by about 20% during the same period. This has given rise to an increase in the proportion of females in the labour force – from about 18% during the sixties to about 25% during the eighties.
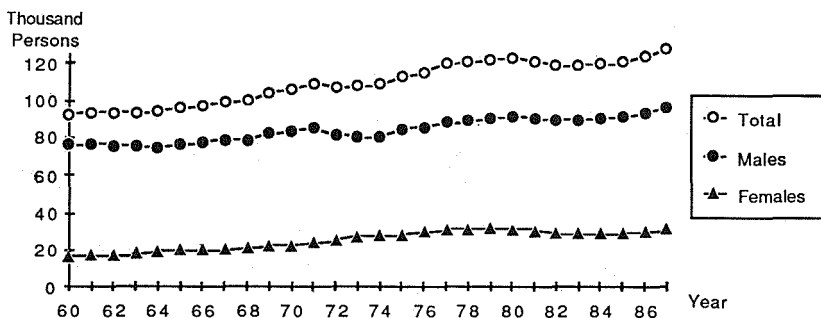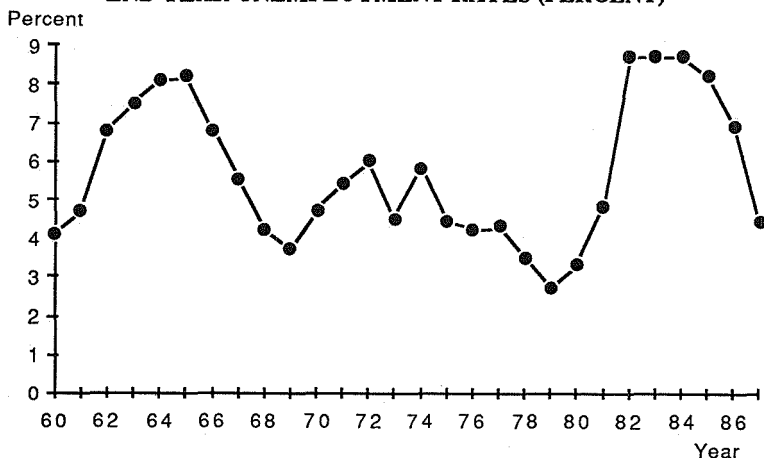
Unemployment

Labour supply should strictly speaking include all those who are *involuntarily* unemployed. For want of a better indicator, involuntary unemployment is usually measured by the number of the people officially registered as unemployed. However, as is well known, this figure may be misleading,

because the official register may include those who are *voluntarily* unemployed, and may exclude some who are not allowed to register even though they are actively looking for a job.

Involuntary unemployment arises because the number of people willing to work exceeds the number of jobs available, that is because labour supply exceeds labour demand. An increase in unemployment might therefore come about not only because the number of jobs decrease, but also because the number of people wanting a job increases. For example, in 1986 there were not enough jobs available for all those who wanted to work. But had labour supply remained at 92 thousand as it was in 1960, Malta would, in 1986, have experienced a shortage of workers, and not a shortage of jobs. It is of interest therefore to examine the factors that influence both sides of the labour market.

Labour Demand

Perhaps the most important factor affecting labour demand is *output*. It is to be expected that as output of firms increases more workers would be needed. In the short run, additional output may be partially produced by overtime work in which case the increase of employment of persons due to increase in output may be small. But if the increase in output is sustained, employment of persons would probably increase according to the long term needs of the firms.

In studies on aggregate labour demand, output is often measured by the gross domestic product in real terms. In Malta, a large proportion of the gross domestic product is exported, and therefore economic conditions in Malta's "client" countries affect domestic output and employment to a large extent. However the domestic market is also of great importance, since many firms depend on domestic demand for goods, such as furniture and beverages, and on domestic demand for services, such as retailing, transport and personal services.

Another factor affecting labour demand is the *wage rate* per person employed or per hour of work. Wages are at the same time costs to the firm employing labour, and income to the persons employed.

Let us consider wages as costs first. One expects that firms will not normally be prepared to employ additional workers if what they pay (as a wage rate, is higher than what they take back (as additional product from the workers). Theory predicts that firms would be willing to employ more labour services if wage rates decrease, and to employ less labour services if wage increases, everything else remaining constant. (In economic theory this can be explained in terms of the *law of diminishing marginal productivity*, in the short run, and in terms of the *marginal rate of factor substi-*

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tution in the long run).

Wages normally account for a large proportion of aggregate personal income. It is therefore to be expected that if wage rates increase, personal income would also increase, thereby stimulating consumption. This in turn would give rise to an increase in demand. (In economic theory this can be explained in terms of the multiplier process).

Thus wage rate increases may have a negative and a positive effect on employment. It is a matter of debate, however as to which of the two effects is the stronger. For example the wage freeze policy which was operative in Malta during the first half of the eighties, might have encouraged employment due to the fact that it rendered labour costs in Malta cheaper than they would otherwise have been in the absence of the wage freeze. At the same time however, this policy could have discouraged employment indirectly through a reduction in domestic demand. The question to ask here is whether the beneficial effects of the wage freeze, arising from a relative reduction of labour unit costs, outweighed its adverse effects, arising from a relative reduction of demand for domestic goods and services.

Another important factor affecting labour demand is *technological change*. Technology has more than one effect on employment. In the short run, it can be argued that technology is labour replacing, since modern methods of production tend to reduce labour needs, everything else remaining constant. However, by employing modern technology, firms may be able to improve their competitievness and may end up increasing rather than decreasing employment in the long run.

When considering this issue with respect to the Maltese economy one has to weigh the advantages of utilising labour intensive technology, which tends to be rather inefficient but which gives rise to a relatively high labour content in production, as against introducing labour saving technology, which tends to reduce costs per unit of output and therefore renders Maltese exports more competitive. There seems to be a growing awareness in Malta that in order to compete we have to place efficiency first and foremost. Given that Malta cannot indefinitely depend on cheap labour, reliance on technological advance in some areas of production, especially the export oriented ones, is probably indispensible.

The statutory average weekly *hours of work* also affect employment of labour, everything else remaining constant. Thus if the weekly hours of work decrease from 40 to 35, firms are likely to need more workers to produce a given output. This would stimulate labour demand. However, here again, there is an adverse side-effect since a reduction in weekly hours without a wage reduction may increase per unit costs, thereby reducing the competitiveness of the firm. The result could be a loss of orders and consequently labour discharges.

FIGURE 4.3
FACTORS AFFECTING LABOUR DEMAND

INDIRECT EFFECTS   DIRECT EFFECTS   LABOUR DEMAND
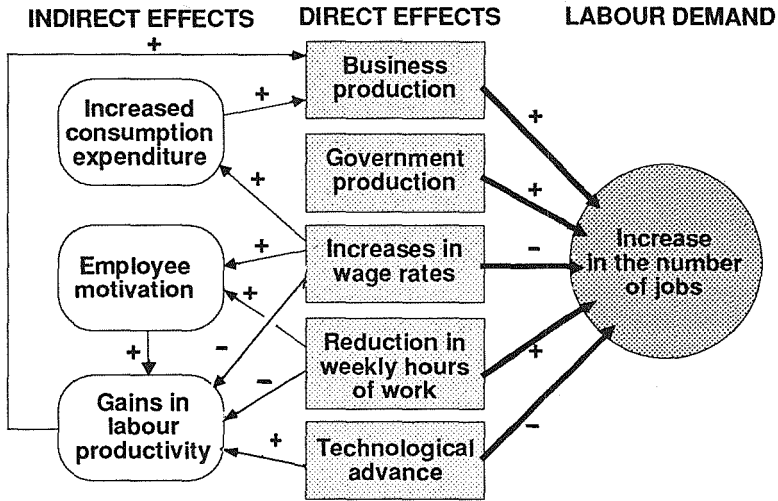
In the diagram, a positive sign indicates that an increase in the variable from which the arrow leaves causes an increase in the variable in which the arrow enters. A negative sign indicates that an increase in one variable gives rise to a decrease in the variable it affects.

During the past thirty years in Malta, average weekly hours of work have decreased from over 50 hours to 40 hours. At the same time, however, output per worker has increased rapidly in real terms, so that the reduction in weekly hours was actually accompanied by an increase in output per person employed. Such a development occurred in most countries of the world, and can be attributed to better use of human resources and to technological progress. This process is likely to continue in the future. Those who advocate the reduction of weekly hours of work argue that in future years fewer workers would be required to produce a given output, and that unless weekly hours of work are reduced, unemployment would increase.

An important factor to consider when analysing labour demand is the effect on the workers' motivation following a change in the conditions of work. For example, an increase in wage rates may at the same time increase labour cost per person employed and decrease labour cost per hour of work, since an employee may be better motivated to contribute to the firm's output after receiving a better remuneration for his efforts. This effect may also arise following a reduction in weekly hours of work or the introduction of modern technology.

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The above discussion which is summerised in Figure 4.3 shows that labour demand is influenced by many factors. It has been shown that given changes in wage rates, technology and weekly hours of work have beneficial and adverse effects on labour demand. The object of many studies on the labour market is to estimate the strength of these opposing effects so that employment policies would have the desired results.

Labour Supply

As indicated earlier, the size of the labour force may be taken as a measure of labour supply. There are various factors that influence the size of the labour force, the most important of which is likely to be the size of the *working age population.*

It is to be expected that as the number of people who are normally eligible to be gainfully employed increases, more people will seek employment. The working age population is itself influenced by past birth rates, by the retirement age, by the compulsory education age and by emigration policies.

However the size of the labour force may change even if the size of the working age population remains constant. For example, more people are likely to join or leave the labour force because of *attitudinal changes.* In Malta, for instance, attitudes towards female employment have changed, and this has given rise to more females joining the labour force. Social attitudes in this respect are influenced by such factors as the availability of labour saving devices in housework, the existence of child nurseries, movements in favour of sexual equality and education.

Another factor related to attitudinal changes is the increasing availability of *female employment opportunities,* such as factory work suitable for women. Up to the fifties, most females worked as nurses or teachers – career jobs requiring years of special education and training – or as chambermaids – a low paid job with degradatory connotations. Nowadays many females work as machine operators, a respectable job, which does not necessitate much training and yields a fairly good income.

Changes in the working age population and in attitudes towards female employment may be regarded as long run factors influencing labour supply. A factor which affects the size of the labour force in the short run is the state of the economy in the trade cycle. In empirical work on the subject, *short run economic activity* is often measured by the *unemployment rate* which in turn is associated with the chances of finding a job. When the unemployment rate is high, job seekers may become discouraged, cease to look for a job, and opt out of the labour force. Such an attitude probably prevailed in many potential labour force members during the first half of the eighties,

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when a decrease in the size of the labour force occured as short run
employment opportunities decreased. In economic theory this phenome-
non is termed *the discouraged worker effect*.

Changes in *wage rates* may also affect the size of the labour force.
Theoretically, an increase in wage rates would make participating in paid
employment more attractive in relation to participating in non-market
work, such as housework. This effect is not likely to be of much importance
with respect to males, since these are institutionally expected to join the
labour force, irrespective of the going wage rate. But it may be relevant to
females, who have a certain degree of choice as to whether to join the labour
force or work in their own households.

Participation Rates

A subject of interest when considering labour supply is the *labour force
participation rate*, which is the proportion of the population that is in the
labour force. Participation rates may be computed in relation to the total
population or in relation to the working age population. The latter method
is likely to be a better indicator of participation rates, since it excludes
population changes which do not effect the size of the labour force.

The following table shows the participation rates for males, females
and the total labour force in 1986. Three participation rates are given, the
first being that with respect to the total population, the second with respect
to the population aged 15 and over, and the third with respect to the
population aged 15 to 60.

Table 4.2
Participation Rates in Malta for 1986

|	Males	Females	Total
Labour Force (Thousand)	93.4	30.2	123.6
Total Population (Thousand)	169.2	174.1	343.3
Participation Rate(1)	55.2%	17.4%	36.0%
Population (15+)	120.9	132.6	260.6
Participation Rate (2)	73.7%	22.6%	47.4%
Population (15-60)	101.5	107.1	208.6
Participation Rate (3)	89.3%	28.4%	58.5%

Source: Annual Abstract of Statistics (Sections II and VI)

It can be seen that the male participation rates were higher than the female
participation rates. If the 15-60 age group is considered, about 90% of the
male population was in the labour force in 1986 whereas only about 28% of

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the female working age population participated.

During the past 30 years, the most important changes in participation rates occured with respect to females, since the female labour force increased at a faster rate than the female working age population. On the other hand, the male participation rate with respect to the 15-60 age group decreased marginally. The weighted average participation rates for males and females taken together remained approximately constant.

FIGURE 4.4
PARTICIPATION RATES
LABOUR FORCE AS A PERCENTAGE OF POPULATION AGED 15 TO 60
(1960=100)
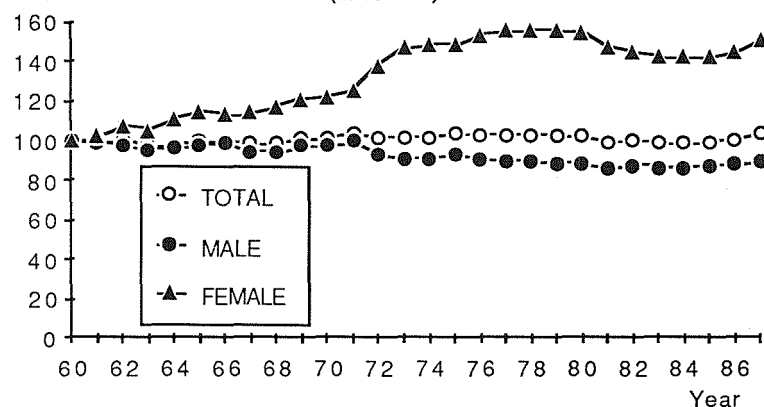
The participation rates indices were computed by first expressing the number of persons in the labour force as a fraction of the 15-60 population age group, and then assigning a value of 100 to the 1960 fraction. The fractions for the other years were proportionately adjusted with 1960=100. The "total" participation rates tended to remain approximately stable. Thus the increases in the female rates were almost totally offset by decreases in the male rates, even though changes in the former tended to be larger than changes in the latter. The" total" participation rates reflect the fact that female rates tended to be about a third of male rates, and therefore took a lower weight.

Wage Adjustment

In the market for a product, excess supply is expected to give rise to a decrease in the price of that product. This decrease in price would then stimulate demand and possibly decrease supply. This type of price adjustment would in theory equilibrate demand and supply. In reality there may be markets were disequilibrium may exist and persist because prices do not adjust in the presence of excess demand and supply.

For example, in the labour market, excess supply – or involunatry

unemployment – may persist for quite a long time, and it is pertinent to investigate why the price of labour, called the wage rate for simplicity, does not necessarily adjust so as to bring about an equilibrium between labour demand and labour supply.

FIGURE 4.5
HOURLY WAGE RATES IN PRIVATE INDUSTRY (CENTS)
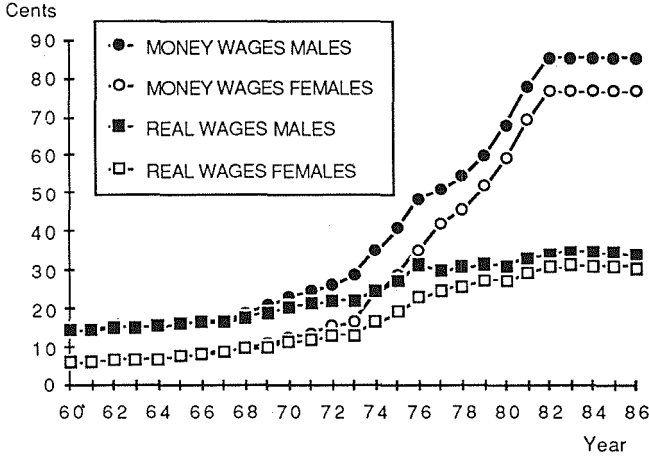
Between 1960 and 1986, money wage rates in Malta have increased by about six times for males and by about thirteen times for females. When measured in real terms, that is, when adjusted for inflation, the increase in wage rates was not so dramatic. Notice the rapid growth in the gap between money and real wage rates during the seventies. Notice also that the difference between the male and female wage rates decreased during the period under consideration.

The existance of excess supply is likely to exert a downward push on prices in any market, and the labour market is no exception. However, in the case of the labour market there are factors which may prevent the wage rate from fully adjusting to its equilibrium level. These include government minimum wage legislation, trade union activity and long term wage contracts. These factors bring about what is known as *wage rigidity* in the downward direction during periods of excess labour supply.

By way of example, during the 1982-1985 period, the Maltese economy was characterised by high unemployment rates. Not all the registered unemployment was caused by deficient demand because some unemployment could have been voluntary. But most probably the high rates of unemployment existing during the 1982-85 period included a considerable proportion of involuntary unemployment caused by lack of jobs. In spite of

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of this, wage rates tended to remain relatively stable, or to decrease at very slow rates. This does not mean that market forces were not operative but that non-market forces tended to counteract market forces.

What would have happened if officially registered unemployment rates reached an extremely high percentage, say of 20 to 30 percent? Would there have been a rapid fall in wage rates? The answer is probably yes, since at very high unemployment rates, job-searchers would have been willing to accept lower wage rates, and employers would have taken the opportunity to reduce their labour costs. Possibly this could have happened either in disregard to trade union resistance and minimum wage laws or as a result of changes in trade union and government attitudes in the face of massive unemployment.

On the other hand, wage rates tend to increase quite rapidly when demand for labour is relatively high, as was the case in Malta during the second half of the sixties and of the seventies. During this period the rate of unemployment was relatively low.

FIGURE 4.6
A HYPOTHETICAL WAGE ADJUSTMENT DIAGRAM
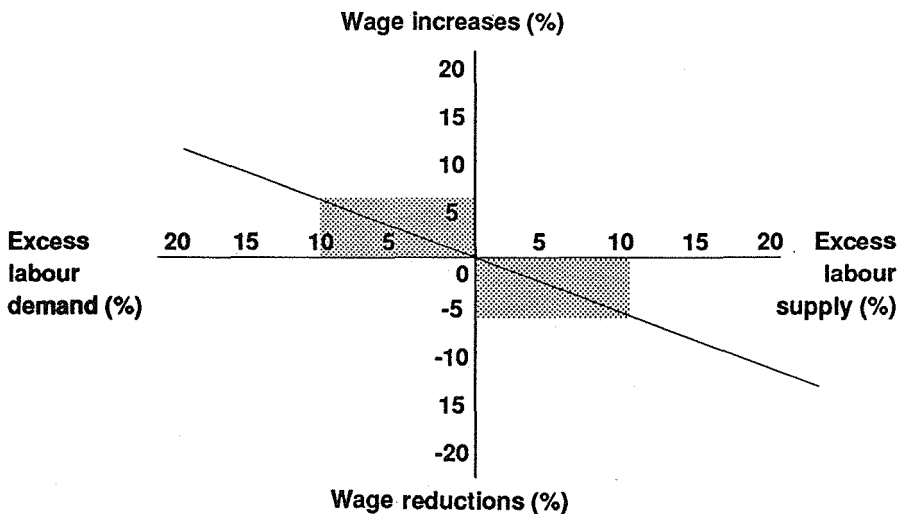
Theoretically excess labour supply should give rise to wage rate reductions. In the diagram a 10% excess supply gives rise to a 5% reduction in wage rates. On the other hand excess labour demand should give rise to an increase in wage rates as shown in the diagram. When wage rates adjust in response to excess demand or excess supply the market would move towards equilibrium at point 0 where supply equals demand and wage rates are stable.

FIGURE 4.7
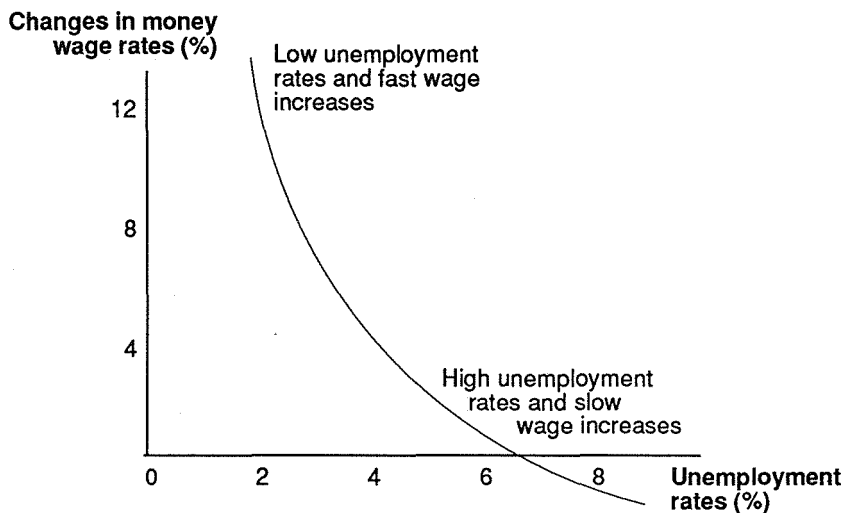WAGE RATE CHANGES AND UNEMPLOYMENT
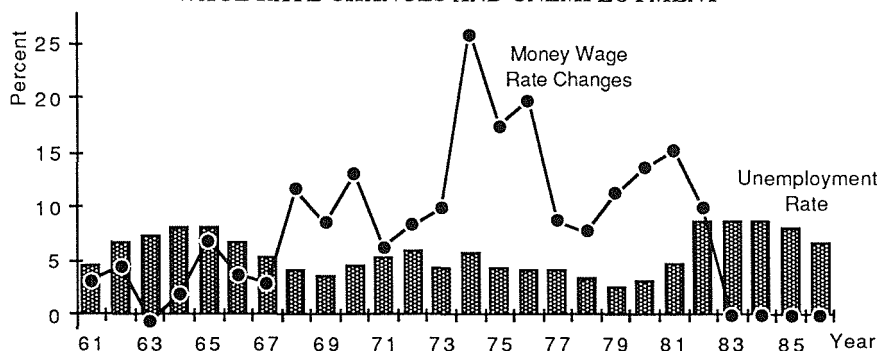
The hourly wage rates were computed by taking a weighted average of the normal male and female hourly wage rates in private industry, as published in the Annual Abstract of Statistics (Labour section). The changes are annual.
Note that during the second half of the sixties and of the seventies, wage rate changes tended to be relatively high and unemployment rates relatively low.. The opposite was the case during the first half of the sixties and the eighties. The first half of the seventies does not fit into this pattern, possibly reflecting "higher than normal" government and union intervention in wage setting and employment creation.

An important consideration in this respect is that unlike the theoretical product market, where prices are expected to increase only when observed demand exceeds supply, in the labour market, wage rates may increase even when unemployment exists. There are many reasons for this. Firstly, as already noted, not all unemployment is voluntary, and therefore a fraction of the registered unemployment is not really excess supply and does not exert a downward push on wage rates. Secondly, some persons may be unemployed not because jobs are lacking, but because of *market frictions*, such as skill mismatches, labour immobility and lack of information about job vacancies. Thirdly, trade unions may succeed in securing wage rate increases even during periods of excess labour supply. In general however, one would not expect trade unions to succcessfully bargain for wage increases when the rate of unemployment is relatively high. And finally there is always the effect of government intervention in employment creation and wage setting (e.g. minimum wage legislation).

It is sometimes observed that that wage rates increase at fast rates when the unemployment rate is low, and to increase at very slow rates, or even decrease, when the unemployment rate is high. In economic theory, the relation between the rate of unemployment and wage rates is analysed in terms of the *Phillips Curve*. The implications of the Phillips Curve are

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FIGURE 4.8
A HYPOTHETICAL PHILLIPS CURVE

Changes in money
wage rates (%)

Low unemployment
rates and fast wage
increases

12

8

4

High unemployment
rates and slow
wage increases

0   2   4   6   8   Unemployment
rates (%)

subject to much debate, but it suggests that a decrease in the rate of
unemployment would tend to increase wage rates, other things remaining
constant. This topic will be further discussed in Chapter 10.
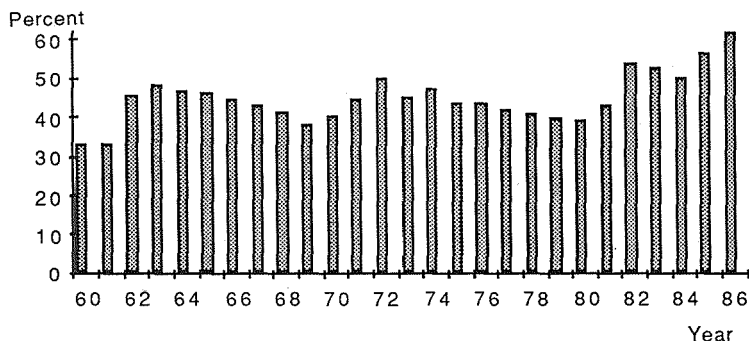
Trade Unions in Malta

The earliest trade unions in Malta emerged just after the first world war,
but until the early forties tradeunionism as a movement remained unim-
portant and ineffective. In 1943, the General Workers Union was formed
and its establishment ushered in a strong trade union movement in Malta.
Subsequently, in 1959, the Confederation of Malta Trade Unions was
formed with the declared aim of creating a federation of all Maltese trade
unions. However, the General Workers Union, the biggest body, refused to
join.

At the end of June 1986, the number of trade unions in Malta was 21.
The biggest union was the General Workers Union whereas the second
biggest was the Union Haddiema Maghqudin (U.H.M.). Trade union
membership amounted to 60,625 equivalent to about 53% of the gainfully
occupied, or, to just over 60% of the wage and salary earners.

The legal framework within which trade union activity is conducted is
the Industrial Relations Act of 1976. The act provides for immunity of trade
unions and employers association in certain actions related to trade

FIGURE 4.9
UNION MEMBERSHIP AS A PERCENTAGE OF WAGE AND SALARY EARNERS

Percent

disputes. It also provides for methods of voluntary and compulsory settlement of disputes and for negotiating machinery.

A main function of trade unions is collective bargaining. This requires some form of recognition on the part of employers. In general, a trade union in Malta is granted recognition as representative of a category of workers if it represents the majority of the category of workers in question in a given enterprise. The main weapon of a trade union is the strike or the threat of one.

Trade Unions and Wage Determination.

Many hold the view that trade unions have an important role in wage determination. By reaping the benefits of collective action, a trade union may push up wage rates for its members, and also for non-members, the latter enjoying the benefits of trade-unionism as free-riders. The analysis of trade union activity raises the question of whether or not trade unions give a positive contribution to the well being of the workers and to the economy as a whole.

It may be argued that the excercise of union power gives rise to a number of disadvantages. Apart from the cost of strikes in terms of lost income to employees and lost sales to the firm, wage bargaining by a trade union may result in wage increases higher than those warranted by labour productivity, and this may bring about a reduction of employment and/or or a loss in business efficiency. Some would argue that an increase in *money wage rates* over and above that warranted by market forces, would give rise to inflation, leaving *real wage rates* at their previous levels, or even possibly reducing them. In this sense, union activity may be counter-productive, since, rather than improving the well-being of its members, it would bring

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about an inflationary spiral.

On the other side of the coin, it can be argued that if unions do manage to push up wage rates, they would be helping in increasing the incomes, health and motivation of the workers and in the process, improving the workers' own well-being and rendering them more productive. Also, trade unions may increase efficiency by helping to improve the working conditions of the employees and the communication process between employers and employees. On a macroeconomic level an improvement in employee wage rates and the higher personal incomes that this brings about, could result in higher consumption levels and therefore in higher output and employment, through the multipier process. Moreover, if a labour market is monopsonised by a single employer, trade union power may actually improve efficiency by offsetting the efficiency loss resulting from a monopsony.

It is not an easy task to test the validity of these propositions with respect to the Maltese economy. One question that may be asked in this regard is whether unions operate independently of market forces. Maltese unions generally demanded and succeeded in obtaining wage increases during periods of low unemployment rates when, it may be argued, wage rates could possibly have risen in any case due to market forces. During periods of high unemployment rates, Maltese unions generally did not seek to push up wage rates, possibly because they were aware that market forces did not permit such increases.

However, it would be an exaggeration to state categorically that trade unions were irrelevant in wage determination in Malta. Unions may have been responsible for preventing wage rates from falling excessively during periods of high unemployment rates. They may have also been responsible for securing higher wage increases than employers would have been prepared to grant during periods characterised by high rates of labour demand.

Policy Options to Reduce Future Unemployment

The Maltese labour force is likely to grow in the future due to two main factors, namely increases in the size of the working age population and increases in the rate of female labour force participation.

Assuming for the moment that the labour force participation rates remain constant, and that the Maltese working age population grows at an average rate of 1% per annum, as has been the case during the past 25 years, the total labour force would tend to increase by about 18,000 over its 1986 level by the year 2000, due to population changes alone.

However, it is not probable that participation rates remain constant.

During the past 25 years, the female working age population participation rate has tended to increase by about 2% per annum. This means that the female labour force has increased as a result of influences other than population increases. Assuming that a 2% per annum increase in participation rates will continue in the future, the female labour force would increase by about 10,000 over its 1986 level by the turn of the century, even if the working age population remains constant.

If these predictions are fulfilled, the labour force would increase by about 28,000 over its 1986 level, and would exceed 150,000 by the year 2000. This forecast can only be regarded as a guess based on past trends. Other methods of forecasting would produce other predictions, but it cannot be denied that the labour force is likely to grow in future years.

To make matters worse, labour productivity is likely to improve due to such factors as improvements in technology and more intense competition in the export markets, so that everything else remaining constant, fewer workers would be needed in the future than at present, to produce a given level of domestic output. This means that even if the working age population and participation rates remain constant, unemployment would increase unless output increases to match the increase in labour productivity.

What measures should be taken so as to avoid the problem of massive unemployment in future years? The answer lies in identifying the factors that affect labour demand and labour supply so as to stimulate demand or reduce supply.

As explained earlier, an important factor effecting labour demand is output, and measures aimed at reducing unemployment generally place the expansion of GDP as a major source of unemployment creation in the *long-run*. Growth policies for this purpose may be based on encouraging investment and improving export competitiveness. Such policies are associated with the supply-side of the economy.

Expansionary *fiscal policy* (related to government spending or taxation) may also help to alleviate the unemployment problems in the *short run*. The suitability of these demand-side measures is subject to debate. Monetarists argue that short run policies tend to be counter-productive, since they would only serve to increase the rate of inflation. This question will be further discussed in Chapter 10.

As noted, demand for labour is likely to be influenced by wage rates and this would seem to suggest that involuntary unemployment would be avoided if wage rates are allowed to adjust to a level compatible with supply and demand equilibrium. This requires wage rate flexibility, and to this end, one may suggest the abolishing of minimum wage legislation and the introduction of measures aimed at reducing trade union power. There is

however no general agreement as to the suitability of such policies. For example, many people hold the view that minimum wage legislation and employees unions are needed to defend workers against exploitation by employers and that allowing wage rates to fall may be counterproductive because this would indirectly adversely affect aggregate demand.

As an alternative, incomes policies could be resorted to. These policies which involve indicative or legally enforced wage restraints, have also been subject to much debate, mainly due to problems asociated with the infringement of economic freedom, misallocation of resources, and the expennsive and often inefficient bureaucratic apparatus required to enforce them.

Another measure which could be adopted to stimulate labour demand is the reduction of weekly hours of work. As noted previously, this could increase cost of production and it may decrease competitiveness unless matched by improvements in labour productivity.

Policies aimed at decreasing labour supply are generally associated with attempts to reduce the working age population, through, for example, lowering the retirement age and increasing the school leaving age. The size of the future working age population can also be influenced by present birth rates, so that policies regarding birth control may also have an effect on future rates of unemployment. A measure taken in the past to reduce the working age population was the encouragement of emigration, but, apart from the fact the emigration has undesirable effects (such as the skill-drain), it is questionable whether this policy option can be resorted to in future years, due to immigrant controls in countries such as Australia and the United States. Malta's possible entry in the European Community as a full member may however create new possibilities for emigration.

Other policy measures which could be utilised in this regard are those aimed at reducing labour *market frictions*. As previously noted market frictions include skill mismatches, lack of knowledge and labour immobility. Skill mismatches occur with structural changes in the economy, and may be reduced by training and retraining schemes. Job knowledge is important because it often happens that unfilled vacancies exist due to lack of information. This type of problem may be minimised, for example, by establishing job information centres. Labour immobility may not be much of a problem within the Maltese islands but it may arise, for example, because of costs (financial or otherwise) of moving from one geographical location to another or from one industry to another.

Measures aimed at minimising market frictions are not intended to increase labour demand, but to ensure that labour supply responds in a more effective manner to the existing job vacancies.

Finally, there are measures associated with the government's role as an *employer of the last resort*.. The government, for example, may offer jobs to

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those who cannot find one in the private sector so as to reduce the rate of unemployment to a pre-set target. One argument in favour of such measures is that people employed in public works and general maintenance are given something socially useful to do. They may also learn some specific skills and as a result become more employable in the private sector. Also, given that the unemployed receive some form of welfare support, society may gain by employing these persons, and getting some work in return.

However, such measures are associated with serious disadvantages, the most important of which is that public employment tends to be less productive than private sector employment. Other disadvantages include that once employed in the public sector, a worker might not be interested to join the private sector, and that persons may register as unemployed even if they are employable in the private sector, so as to be considered favourably for public employment. All this would weaken the incentives to work in the private sector and create artificial labour shortages.

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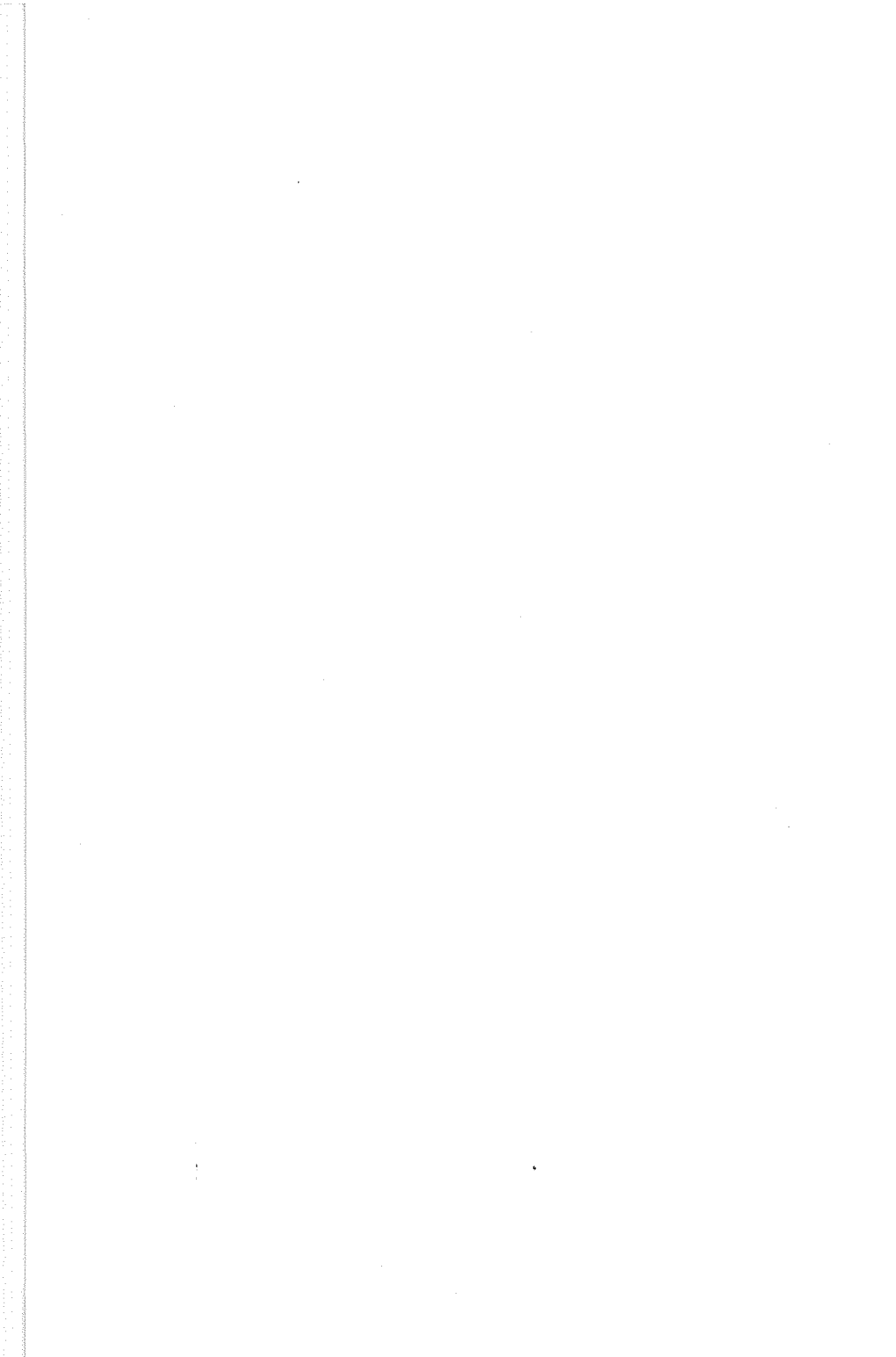
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PART TWO
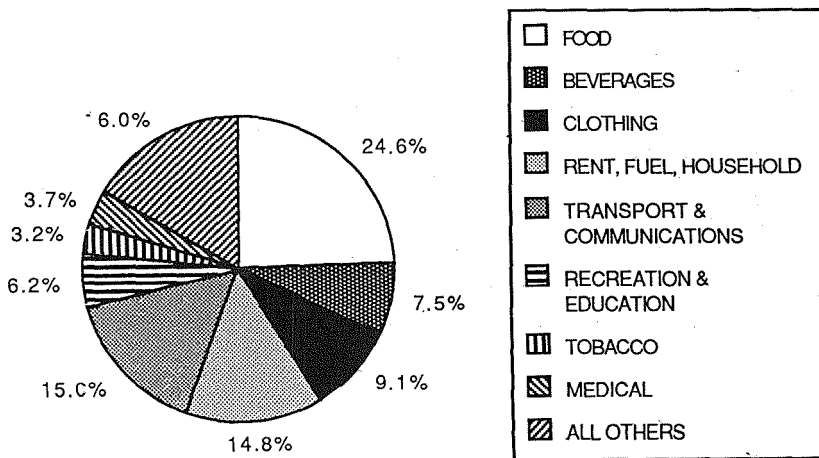
AGGREGATE DOMESTIC EXPENDITURES

5

CONSUMPTION EXPENDITURE

There are four broad categories of expenditures, namely private consumption, government current expenditure, investment (private and public) and exports. These four types of expenditures together constitute the *total final expenditure*.

Private consumption expenditure accounted for about 35% of the total final expenditure in Malta during the few past years. The domestic value added content of Maltese consumption is 60% and therefore changes in consumer expenditures have a major effect on domestic income and employment.

Consumption covers a variety of expenditures, including those on non-durable goods (such as food, beverages and tabacco, clothing, footwear and fuel), on durable goods (such as household and transport equipment) and

FIGURE 5.1
COMPOSITION OF PERSONAL CONSUMPTION EXPENDITURE (1986)

□ FOOD

▨ BEVERAGES

■ CLOTHING

▨ RENT, FUEL, HOUSEHOLD

▨ TRANSPORT & COMMUNICATIONS

☰ RECREATION & EDUCATION

▥ TOBACCO

▨ MEDICAL

▨ ALL OTHERS

on services (such as recreation, education, and medical care). A detailed description of consmuption expenditure in Malta is given in Table 20 of the National Accounts of the Maltese Islands.

Economists are interested in the factors that affect consumption expenditures, since as noted, this is a very important macroeconomic variable. In general, attention is focussed on the relation between consumption and disposable personal income. Table 5.1 shows how consumption in Malta has changed at current prices and at constant 1973 prices in Malta during the 1973-1986 period. The table also gives disposable personal income and the *average propensity to consume*, which is the ratio of consumption to disposable personal income, during the same period.
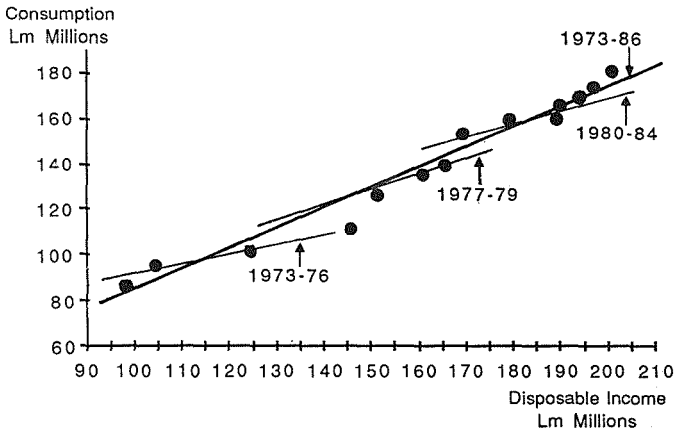
Table 5.1.
Consumption and Disposable Income 1973 – 1986 (Lm Millions)

Year	Consumption at Current Prices	Consumer Price Index	Consumption at 1973 Prices	Disposable Income at 1973 Prices	Average Propensity to Consume
1973	90.6	100	90.1	97.3	92.6
1974	107.0	111	96.2	104.1	92.4
1975	118.7	117	101.9	123.7	92.3
1976	135.7	119	113.7	145.5	78.1
1977	172.4	132	130.6	150.6	86.2
1978	186.4	137	136.3	159.1	85.7
1979	206.0	147	140.4	164.0	85.6
1980	253.5	170	149.1	167.2	89.1
1981	279.4	182	154.0	176.2	87.4
1982	305.7	193	158.5	185.3	85.6
1983	306.7	191	160.7	186.0	86.4
1984	317.5	190	167.1	191.2	87.4
1985	333.2	190	175.4	193.6	90.6
1986	347.9	193	180.3	198.8	90.7

Sources: National Accounts of the Maltese Islands

Table 5.1 shows that the average propensity to consume (APC) for the whole period was around 87%. However when a shorter span of years is considered, a pattern of upward shifts emerges. It appears that the APC tended to decrease between 1973 and 1976, after which year there was an upward shift in the APC. The APC tended to decrease again between 1977 and 1979. After that year there was another upward shift followed by another period of decreasing APC between 1980 and 1982.

FIGURE5.2
CONSUMPTION FUNCTIONS FOR MALTA

In the diagram, consumption and disposable personal income are measured at 1973 prices, as shown in Table 5.1.

The annual observations of the variables are marked as •. All the • marks constitute what is known as a scatter diagram. The lines shown in the diagram have been fitted on the scatter diagram by the Least Squares method of regression.

The 1973-1986 fitted line shows that for every Lm100 increase in disposable personal income, personal consumption on average increased by about Lm85, suggesting that the Marginal Propensity to Consume for this period averaged approximately 0.85. The diagram shows that the three lines fitted for shorter time periods have a lower slope than the fourteen year average. This would seem to suggest that the consumption function tended to shift upwards during the 1973-1986 period.

Hypotheses Regarding Consumption Behaviour

Generally speaking, low income families spend a larger proportion of their disposable income on consumption. For example a family earning just the minimum wage might spend almost 100% of its income on consumption. On the other hand a family earning say Lm600 a month might spend 70% of its income on consumption and save around 30%.

This assumption regarding consumer behaviour, associated with J.M. Keynes, is referred to as the *absolute income hypothesis*. It states that consumption increases with disposable income, but that the average propensity to consume decreases as income increases.

Empirical studies of the consumption function covering a short span of time have tended to confirm the absolute income hypothesis. However longer run studies contradicted this hypothesis because in the long run

consumption is often found to change in an approximately proportional manner with disposable income, implying that the average propensity to consume remained roughly constant.

This led to attempts to reconcile the contradictory evidence between short run and long run consumption/income relationships. There are three theoretical explanations which have had considerable influence on macro-economic analysis. These are (a) the relative income hypothesis (b) the permanent income hypothesis and (c) the life cycle hypothesis.

The *relative income hypothesis* is associated with James Duesenberry. It is based on the assumption that consumption expenditure is not totally reversable, in that, once a household gets accustomed to a certain level of consumption, it will attempt to maintain that same level even if disposable income decreases. This *habit persistence* gives rise to a short run consumption function which is different from the long run one.

For example if, following a peak level of personal income, there is a decrease of such income, consumers might try to maintain their living standards by consuming the same amount as before, or by decreasing their consumption at a slower rate than income. In either case, the ratio of consumption to income (the APC) increases as income decreases, implying a reduction in the ratio of savings.

When income increases again, the consumer might at first increase consumption by a lower proportion than income, until the previous peak is reached, so as to make up for the immediate past reduction in this rate of savings. If income goes on growing after the previous income peak is reached, consumption might grow at a proportional rate again, until another relative decline in income is encountered, in which case the APC would increase again, and so on. This implies that in the short run the APC increases as income decreases and vice-versa, whereas when considering long run income peaks only, the APC would remain approximately constant. If this hypothesis is correct, it would reconcile the finding that in the long run the APC differs from that of the short run.

The *permanent income hypothesis* was proposed by the prominent economist Milton Friedman, who suggested that consumption behaviour is related to a long run view of income. The assumption underlaying this hypothesis is that actual income has a transitory component in it (say a lotto win) which is unpredictable, and a permanent component, based on what the individual can count on, given his human capabilities and wealth resources. Similarly, acording to this hypothesis, consumption has a transitory unpredictable component, and a permanent component, the latter being associated with permanent income.

Friedman suggested that the ratio of permanent consumption to permanent income is stable and constant, since the consumers do not normally

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behave in a totally erratic manner, and do not therefore adjust their long run consumption expenditure in accordance with transitory income. If income is averaged over a sufficiently long time, the transitory components (the windfall gains or unplanned losses) would cancel each other out, and the relation between consumption and disposable income, computed for a long period of time, would produce an approximately constant average propensity to consume.

The *life cycle hypthosis* is associated with the economist Franco Modigliani. It is based on the assumption that consumption is some form of a long term design by the household. Households, for example, save to transfer some of the current income to future consumption. In general, income tends to be relatively low at the begining of a working carreer, increases up to retirement age, than falls again with retirement. According to the life cycle hypothesis, households do not adjust their consumption behaviour to the pattern of current income, but according to some long term plan aimed at stabilising consumption over a lifetime in relation to a long run view of income and wealth .

Thus at the beginning of a working career, there is a tendency to dissave (relying on future savings to, for example, buy a car or a house). Similarly, in retirment, a household tends to dissave, relying on past savings.

Other Explanations

Other explanations were proposed to reconcile short run with long run consumption behaviour. Some are rather *ad hoc*. For example it is suggested that in the long run consumption increases independently of income due to such factors as urbanisation, the introduction of more consumer products, an aging population, and the introduction of improved welfare schemes. These factors are all expected to push up consumption expenditure in the long run, even if income remains constant.

Other factors which are assumed to explain consumption behaviour are rate of interest changes, improvements in credit facilities, price expectations and income distribution.

Economists disagree as to whether or not an increase in the rate of interest would increase or decrease consumption. A relatively high rate of interest would encourage savings and discourage consumption. On the other hand, given that interest is an income, an increase in the rate of interest might have the opposite effect, namely that of stimulting consumption.

The availability of credit, such as for example, hire purchase schemes, allows consumers to buy goods, especially durable ones, which they would not otherwise have afforded. An increase of credit facilities, therefore, is

expected to stimulate consumption.

Expectations of price increases may give rise to an increase in current consumption as consumers decide to buy goods and services at their current price rather than at their future price which would be anticipated to increase. There is also the possibility that a given expected rate of inflation renders the purchase of durable goods increasingly attractive, in relation to holding money balances.

Distribution of income may also influence aggregate consumption decisions, since rich families tend to spend a lower proportion of their income A redistribution of income from the rich to the poor might therefore stimulate consumption, even if aggregate income remains constant.

The factors that effect consumption are therefore numerous. However most oconomists agree that income, however measured, is the most important factor affecting consumption decisions.

As noted in the introduction to this chapter, Maltese data on consumption as a function of disposable personal income, would seem to suggest that there were short term spans of time when the average propensity to consume decreased, and that for longer run periods, the APC did not tend to increase or decrease in a consistent manner.

Consumption Expenditure and the Multiplier Process

The relation between consumption and disposable personal income also yields information about what is known as *marginal propensity to consume*

FIGURE 5.3
THE MARGINAL PROPENSITY TO CONSUME
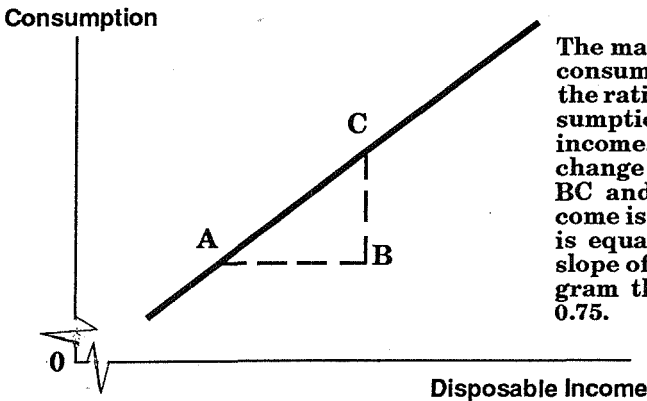
Consumption

The marginal propensity to consume (MPC) measures the ratio of a change in consumption to a change in income. In the diagram the change in consumption is BC and the change in income is AB, so that the MPC is equal to CB/AB, i.e. the slope of the line. In the diagram the MPC is equal to 0.75.

Disposable Income

(MPC), which is the amount of consumption induced by an additional amount of personal disposable income.

As shown in Figure 5.2, the marginal propensity to consume for Malta tended to be around 0.85 between 1973 and 1986. This indicates that on average the Maltese people spent an additional Lm85 on consumption for every additional Lm100 in disposable income, thereby giving rise to further "rounds" of income and expenditures.

This has implications regarding the multiplier process. Combined with the marginal propensity to import and the marginal tax rates, the marginal propensity to consume sheds light on the extent to which a given amount of income is respent on domestically produced and on imported goods and services. The multiplier process is described in more detail in Chapter 17. It will be shown that consumption expenditure plays an important role in this process.

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6

INVESTMENT EXPENDITURE

Investment may be defined as expenditures on fixed capital assets (plant, equipment and buildings) and changes in inventories (unsold finished goods, work in progress, etc.). Thus the term investment, as used here, does not describe the deposit of money in banks, the purchase of company shares and similar transactions which earn interest or a dividend.

Investment expenditure may be undertaken to increase capital stock (net investment) or to replace capital which is used up as a result of wear and tear (replacement investment). The amount of investment that goes for replacement is theoretically measured by **depreciation** or capital consumption. Table 6.1 presents data on gross and net investment in Malta for 1986.

Table 6.1
Capital Formation in Malta – 1986 (Lm Millions)

Gross fixed investment		122.3
of which:		
Construction	44.8	
Machinery	77.5	
Less depreciation (capital consumption)		23.2
Net fixed investment		**99.1**
Changes in inventories		8.2
Total net investment		**107.3**

Source: National Accounts of the Maltese Islands

Private and Public Investment

Table 6.2 classifies total fixed investment for 1986, according to whether it was purchased by the private sector or by the public sector.

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Table 6.2
Investment By Asset and Purchases - 1986 (Lm Millions)

	Private	Government	Total
Dwellings and Other Construction	32.9	11.9	44.8
Transport Equipment	16.5	0.2	16.7
Machinery and Other Equipment	47.0	13.8	60.9
Gross Fixed Investment	**96.4**	**25.1**	**122.3**
Less Depreciation	16.4	6.8	23.2
Net Fixed Investment	**80.0**	**19.1**	**99.1**
Inventory Changes	3.5	4.7	8.2
Total Net Investment	**83.5**	**23.8**	**107.3**

Sources: National Accounts of the Maltese Islands

In general, the private sector (households and firms) invests in business activity to produce goods and services for profit. An exception to this is investment in dwellings which as the name implies is undertaken for residence. The public sector (government) investment, on the other hand,

FIGURE 6.1
GROSS FIXED INVESTMENT BY PURCHASER AND TYPE OF ASSET
AVERAGES FOR 1980-1986
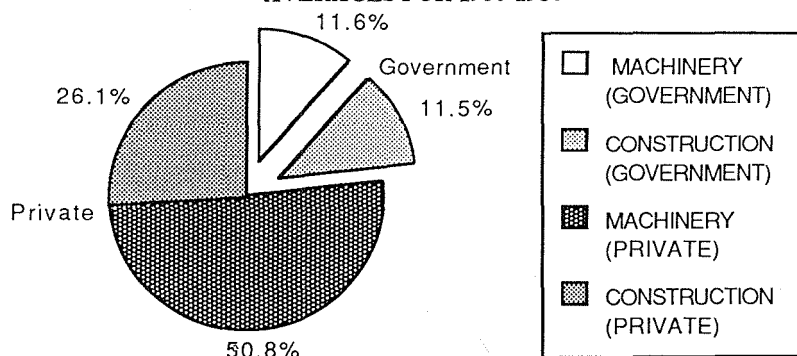
is generally undertaken to provide social facilities (e.g. building a hospital) and to upgrade the economic infrastructure (e.g. building an industrial estate). However in some cases government undertakes investment for profit, and this type of activity is sometimes referred to as public enterprise. During the past twenty years, this last type of investment has accounted for an increasing share of total public sector investment in Malta.

Financing Investment

There are three main sources of finance for investment, namely households, companies and the government. Households save part of their incomes, and make their savings available for investment, generally through the banking system. Sometimes, a household may run an unincorporated enterprise (e.g. a self-employed grocer) in which case it may utilise its own savings directly. Companies save part of their profits by retaining it instead of distributing it as dividends. The government receives revenue from taxes, licences, and from grants or loans. Part of this revenue is respent on public administration and welfare payments, and the remainder is saved, mostly for public investment. Sometimes, a proportion of government saving is also utilised to finance investment in the private sector.

The following table shows the amount of savings originating from the sources just mentioned in 1986. It can be seen that over and above these domestic savings there were private and government capital transfers from abroad.
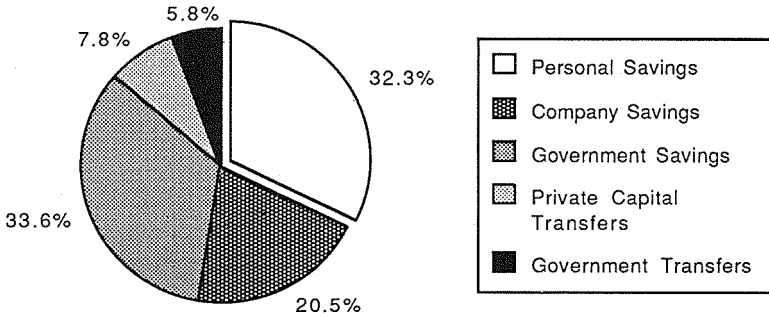
Table 6.3
Financing Investment – 1986 (Lm Millions)

	Private	Government	Total
Savings	62.2	28.4	90.6
Capital Transfers from Abroad	15.4	1.4	16.8
Total Finance Available	**77.6**	**29.1**	**107.4**
Less Transfers to Abroad			0.1

Sources: National Accounts of the Maltese Islands

The Lm62.2million private savings shown in Table 6.3 originated from persons and non-profit making institutions (Lm33.4) and from companies (Lm28.8). Thus, in 1986, a large proportion of finance available for investment came from the private sector. These savings, together with transfers from abroad, were not, however, enough to finance the investment undertaken by households and firms in this sector (see Table 6.2).

On the other hand, the government saved Lm28.4 which was more than the amount of investment actually purchased by the public sector (see Table 6.2). The public sector lent a proportion of its excess savings to the private sector. This type of lending from the public to the private sector arose mainly because the Maltese government has a direct or indirect stake in certain business activities classified under private enterprise.

FIGURE 6.2
SOURCES OF FINANCE FOR INVESTMENT. AVERAGES FOR 1980-1986

5.8%
7.8%
32.3%
33.6%
20.5%

☐ Personal Savings

▦ Company Savings

▨ Government Savings

▨ Private Capital Transfers

■ Government Transfers

The Motives for Investment

A private sector firm is not expected to invest in order to buy, for example, a new machine unless it is profitable to do so. A private investment decision is likely to be based on a comparison between the rate of return on investment and the cost of borrowed funds, adjusted for risk. This would require some estimate of future demand for the product and the expected income flows from sales. This of course implies a degree of uncertainty.

Theoretically one would expect that an increase in the cost of borrowed funds, which is related to the rate on interest, would render investment less attractive, everything else remaining constant. The policy implication of this is that a reduction in the rate of interest should encourage investment, and that an increase in the rate of interest should have the opposite effect. In macroeconomics this is represented by the *marginal efficiency of capital* schedule which states that new investment would be undertaken if the current rate of interest on borrowed funds is lower than the rate of return expected from the capital asset. Thus for example, if the current rate of interest is 7% and the rate of return on the capital asset is expected to be 8%, than the purchasing of the capital good would appear to be profitable.

It may not be possible to test this theory with respect to Maltese investment, because in Malta, the rate of interest did not change in a significant manner during the past years, whereas investment expenditure has varied considerably between one year and another, as shown in Figure 6.3. This would seem to suggest that in Malta, the variations in investment expenditures were probably caused by factors not directly connected with changes in the rate of interest.

Another factor likely to affect investment decisions is a change in

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FIGURE 6.3
FIXED INVESTMENT AT 1973 PRICES (LM MILLIONS)
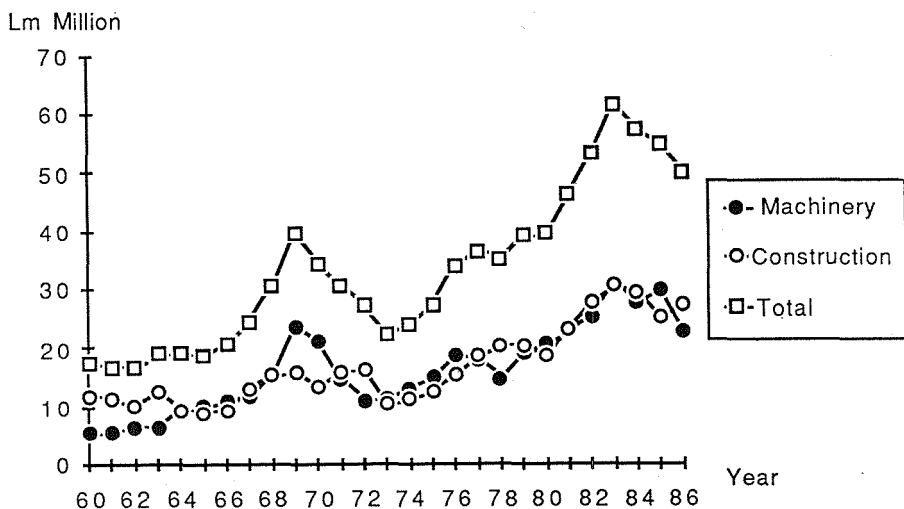
The figure shows that investment expenditures have fluctuated considerably between 1960 and 1986. Studies on investment in Malta would seem to indicate that this variable was influenced by changes in past values of output, suggesting that an "accelerator" type of relationship may have existed.

demand for the final product. Thus for example, a firm may decide to purchase more machinery if it experiences an increase in sales. In macroeconomics, this is referred to as the *acceleration principle*. It is likely to occur when an increase in demand for the final product is expected to persist and cannot be met by increasing output with the existing capital stock. Studies on investment in Malta indicate that machinery investment did respond to past changes in the level of output.

In practice private investment decisions are, to a considerable extent, influenced by **expectations** regarding future changes in economic and other variables, such as changes in government policy, consumer tastes, and international trade opportunities. These variables are difficult to predict accurately, and this may explain why certain investment expenditures do not yield the desired rate of return.

Some forms of investment have special characteristics. For example, in the case of investment in residential construction, unlike investment in machinery, there is usually an active market (sales and purchases of houses) which is influenced by population changes or by the changes in the

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size of households, by the cost of construction, and by the market rate (or the subsidised rate) of interest on borrowed funds.

Inventory investment (raw materials, stocks of finished goods and work in progress) is generally undertaken to facilitate the production process, and tends to depend on the extent to which a firm expects sales to increase or decrease.

Investment by the government is generally assumed to be exogenously determined in that it can increase or decrease irrespective of the rate of interest and irrespective of changes in economic activity. Thus for example, infrastructural projects are often undertaken by governments to promote economic development. As noted, such investment decisions are not, generally speaking, associated with the private profit motive.

Investment and the Multiplier

The multiplier process will be explained in a separate chapter where it will be shown that a change in investment expenditure would have a multiplier effect on GNP and other induced macroeconomic variables. There are two important considerations to be made in this respect, the first related to the import content of investment expenditure and the second to the time lags involved.

As shown above, investment expenditure may be made on, amongst other things, machinery and construction. In general, Lm1000 spent on construction is expected to give rise to a much higher contribution to GDP than a Lm1000 spent on machinery, since the marginal import content of machinery tends to be higher. This suggests that the multiplier effects associated with capital formation in construction is likely to be much higher than the multiplier effects associated with capital formation in machinery.

It should be noted that this argument relates to investment as an expenditure, and not as a means of production, and it abstains from considering whether or not a given expenditure on machinery is more productive in terms of future output, than an equivalent expenditure on construction. Unlike consumption, the beneficial effect of an investment expenditure is not just the satisfaction of current needs, but also the expansion and improvement of the productive capacity of the nation. This consideration is perhaps more important than that associated with multiplier effects.

As noted, current investment expenditure is likely to be induced by past changes of output or sales. Thus a change in last year's sales in relation to those of the year before may act as an incentive for business to acquire more capital this year. A related consideration is that the buying and installing of new machinery takes time. In studies on investment, economists allow for this type of lagged response, by assuming that current investment

decisions are influenced by past changes in aggregate output. When lagged values of output are introduced into multiplier analysis, the model becomes dynamic rather than static.

In a dynamic multiplier model, time plays an important role, since a change in a variable in one period would have repurcussions on other variables for a number of future years. In the case of Malta, for example, it is possible that machinery investment in 1986 was determined by changes in GDP between 1984 and 1985, and the 1986 investment expenditure had itself an important effect on output, consumption and other induced macroeconomic variables in that year.

Business Cycles

In macroeconomic analysis, the interrelationship between investment and output just described is used to explain business fluctuations and is referred to as the interaction between the multiplier and the accelerator. Theoretically, an increase in expenditure is expected to expand output through the multiplier process, and this change would in turn induce investment through the accelerator process. This would further increase

FIGURE 6.4
A HYPOTHETICAL BUSINESS CYCLE
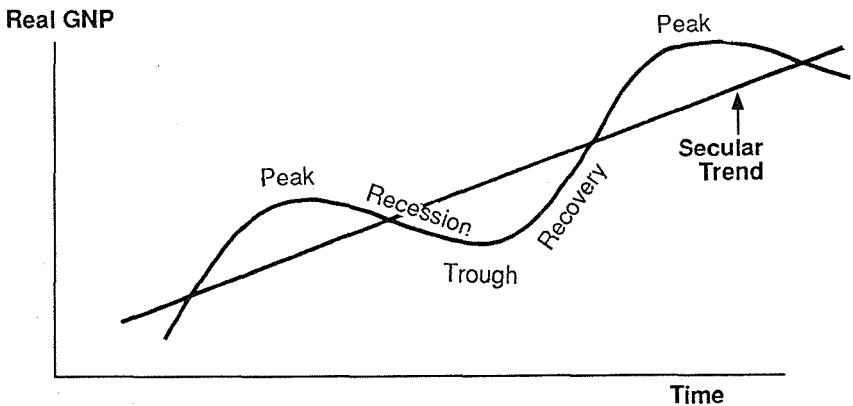
Business cycles are associated with short-term fluctuations, as distinguished from the long-run *secular* trend.
The real ups and downs of an economy are generally not as smooth and as regular as those shown in the diagram. In reality the economy tends to fluctuate during shorter-run time spans due to, for example, seasonal factors. Again, in reality, some recessions last longer than others and develop into what are known as *depressions*, and some peaks are higher than others, and develop into what are known as *boom* .

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output and investment. Thus the accelerator and the multiplier would reinforce each other and give rise to an economic boom.

The boom cannot however last indefinitely, and the rate of growth of the economy would slow down as full employment of resources is approached. At some point, the economy would reach a *peak*, in which case the change in output would be zero, and no additional capital stock would be required. This would imply a reduction in investment spending, causing the multiplier to work backwards. Incomes would start to fall and a recession is ushered in.

The downswing would gather momentum because the fall in income would bring about a fall in consumption and further falls in investment spending. But consumption can never decrease to zero, and at some point a *trough* is reached, and the economy would start to pick up again. One reason for this turning point is that consumers would need to replace their worn out durable goods (fridges, washing machines, cars, and so on). This would carry the seeds of the *recovery*. This may take some time to materialise, but when it does, the accelerator and the multiplier would again reinforce each other to generate a new boom, and a new cycle is created.

Is this theoretical explanation of business cycles relevant to the Maltese economy? It will be shown in Chapter 18 that between 1960 and 1984, the Maltese economy did follow a cyclical pattern of change. But it may be an oversimplification to state that the type of interactions just described are the only source of economic fluctuations in Malta.

Most probably, the cyclical pattern of change was the outcome of a large number of forces. For example the general elections may have played a part, as office holders did their best to pour money into the economy to get re-elected. In this case one can talk of a *political* business cycle. In some cases, the domestic recession was aided by economic conditions abroad, as was the case during the first half of the eighties. As noted elsewhere, Malta is very much an open economy, and a decrease in demand from abroad would have a major impact on domestic output and employment.

However, domestic multiplier and accelerator effects may have had a bearing on the upswings and downswings of the Maltese economy, although it is not an easy task to establish the exact manner in which this interaction operated.

In Chapter 18, it will be shown that the economy grew at relatively fast rates during the second half of the sixties and of the seventies. These two periods were characterised by rapid increases in spending on construction and tourism, which tend to have high multiplier effects due to their relatively low import content. The rapid change in output during these two periods may have, in turn, induced lagged responses in investment.

While on this topic, it is worthwhile defining some terms related to the

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business cycle. The term business cycle refers to the ups and downs in the level of economic activity, extending over a period of years. The duration of individual cycles may vary, but they have common characteristics, as shown in Figure 6.4.

The *peak* is were the economy is at full-employment of resources. It is an upper turning point, followed by a *recession*, when output and employment grow at a slower rate relative to the trend. If the recession is severe and prolonged, it is termed a *depression*. The *trough* is where output and employment reach their lowest levels. It is a lower turning point, followed by the *recovery*, where output and employment grow at a faster rate then the trend. The period of time when the recovery is followed by very rapid increases in economic activity is termed a *boom*. The *trend* represents the long run growth rate of the economy around which economic activity fluctuates in the short run. There are several variables used to measure economic activity. One of these is GNP measured at constant prices.

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7

GOVERNMENT

The Maltese government is involved in many ways in the national economy. It is the overall long-run economic policy maker, and every few years, it launches development plans with objectives and strategies relating to output, employment and other economic variables. Government is also in charge of regulating and influencing the economy on a year to year, and even on a shorter term basis.

The government is directly involved in the economy as a buyer of goods and services from private business, generally by means of public calls for tenders. It participates directly in the production of services associated with public administration. The government is also involved in industrial production, sometimes directly, as in the case of electricity production, and sometimes indirectly, through joint ventures with other governments or through equity participation with private industry.

Government Intervention

The government intervenes in the economy of the country so as to attain specific objectives at a macroeconomic and microeconomic level.

Macroeconomic objectives usually include a satisfactory rate of economic growth, a low rate of unemployment, price stability and a healthy balance of payments. Microeconomic objectives include the promotion of efficiency in production and of fairness in the distribution of the proceeds of production.

As is well known, the extent to which government should intervene in the economy is subject to much debate. Some would justify government intervention on the grounds that market forces alone do not produce the desired results due to (a) unfair competition (b) market frictions such as lack of knowledge and demand-supply mismatches, and (c) unequal power sharing between employers and producers on the one side, and employees and consumers on the other side. Others would prefer to limit government

intervention as much as possible on the grounds that government action gets in the way of the operation of market forces, and that bureaucratic control inhibits efficiency and may even promote corruption.

The Tools of Policy

To attain the economic goals just mentioned, the government uses specific tools, the most important of which are fiscal policy, monetary policy and direct intervention.

Fiscal policy is mostly aimed at stabilising the economy through demand management. This policy usually forms part of the philosophy underlying the government budget, although changes in course may occur between one budget and another.

Taxation is an integral part of fiscal policy. Popularly, taxation is viewed only as a source of government revenue, and can therefore be justified on the grounds that it enables the government to finance public administration, invest in the economic infrastructure and carry out welfare programmes. In reality, however, taxation has a much wider impact on the economy. For example taxation has an important effect as a counter-cyclical tool. Certain types of taxes, such as progressive income tax, act as *automatic stabilisers* since they automatically withdraw more money from the income stream in times of a boom than in times of recession. In times of a recession, such a tax is automatically reduced for those who experience a reduction in income. Taxation may also be used as a *discretionary stabiliser*, that is it can be changed at the discretion of the government as an anti-cyclical measure.

A major disadvantage of taxation is that it may adversely affect the producers' willingness to invest, and the individuals' willingness to participate in the labour force. Taxation also influences attitudes towards participating in formal economic activities, as distinguished from informal or 'underground' activities. The latter type of activities tend to be encouraged as income-tax rates increase.

Taxes are said to be *progressive* when the fraction of income paid as tax increases with income, and *regressive*, when the fraction of income paid as tax decreases with income. Taxes are said to be *proportional*, when the fraction of income paid as tax remains constant. Personal income tax is usually progressive and this is justified on the grounds that those who afford to pay more should shoulder a higher burden on the other hand, regressive taxation, such as certain types of expenditure taxes, may be considered as undersirable, since the poorer sections of the community may bear the highest burden, in proportion to their income.

The question as to whether or not taxation ought to be reduced has been

hotly debated. Those who are against tax reductions argue that a decrease in government revenue would give rise to deficit financing, which is inflationery pressures, or to cuts in government expenditure. Those who favour a reduction in tax, such as the so-called "supply side economists", argue that this would encourage investment and enterprise. In turn, this would give rise to an increase in income, so that even if tax rates are cut, tax revenues from a higher income need not result in a reduction in government revenue. This argument is associated with Arthur Laffer, and is referred to as the *Laffer curve*.

FIGURE 71
THE LAFFER CURVE
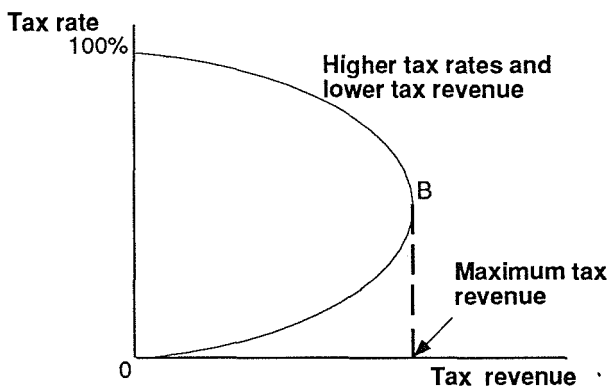
The Laffer curve suggests that if tax rates are increased over a certain rate tax revenues would decrease. In the above diagram, a zero tax rate yields zero tax revenue, and a 100% tax rate likewise yields zero tax revenue, because people would refuse to earn taxable income at this high rate. At some intermediate point, say at point B, tax revenues are maximised. The reasons why higher tax rates bring about lower tax revenues include that high rates discourage investment and labour effort and encourage tax evasion.

In Malta taxation takes three principal forms, namely personal income tax, expenditure tax and company tax. Personal income tax is progressive, and is generally levied in the form of *Pay as You Earn* on wages and salaries and as *Provisional Tax* on self-employment income. A proportion of personal income is exempt from tax, and is deducted for tax purposes. Such deductions increase with the number of dependents on the tax-payer.

Expenditure tax is levied on consumer goods (and to a much smaller extent on capital formation), mostly in the form of customs and excise duties.

Corporation tax in Malta is proportional and amounts to 32.5% on

company gross profits. On payment of dividends, a resident company is entitled to deduct tax according to the amount of dividends distributed. Dividends received by persons are then taxed as personal income.

The following table gives data for these three types of taxes in four selected years since 1972.

Table 7.1.
Taxation in Malta for Selected Years (Lm millions)

	Personal Income Tax	Net Expenditure Tax	Company Income Tax	Total Tax	Percent of National Income
1972	6.3	12.6	2.4	21.3	22.6 %
1976	18.8	14.3	4.1	37.2	18.5 %
1982	63.7	44.0	17.1	124.8	27.5 %
1986	61.1	50.1	15.4	126.6	27.2 %

Sources National Accounts of the Maltese Islands

Table 7.1 shows that all three forms of taxation have tended to increase rapidly between 1972 and 1982 and to remain relatively stable after 1982. The three types of tax revenues considered together accounted for about 23% of National Income in 1972 and this proportion increased to about 27% during the first half of the eighties.

FIGURE 7.2
TAXES (Lm MILLIONS)
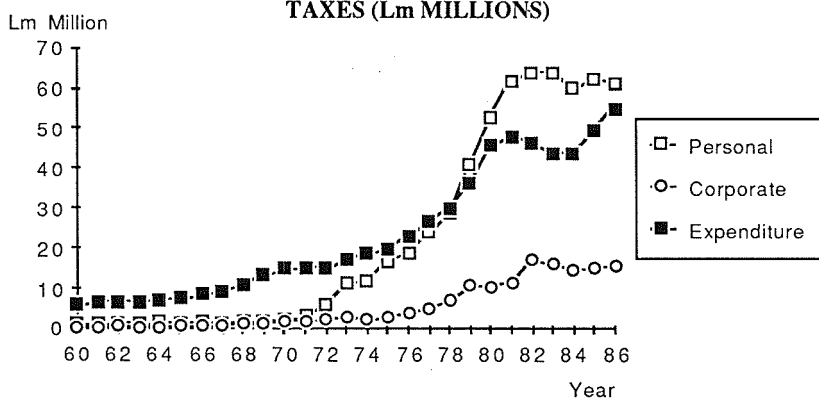
A Good Tax System

Economists often discuss the properties of a good tax system. In general this is one which distributes the burden of government among the people

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in *a fair manner*. There is no general agreement, however, as to the definition of fair. Some would argue that those who benefit most from the government services in question should pay most. Others argue that those with the highest income should pay most. This *ability to pay* principle is applicable in the case of progressive income tax.

Another important requirement of a good tax system relates to its effect on resource allocation. In general taxes tend to affect resource allocation in that they change the final price of the product or the income of factors of production. Thus for example, a good which is efficiently produced, or a resource which is abundant, may be rendered artifically expensive by means of an expenditure tax.

Still another property of a good tax system relates to the cost of collection. On this score, expenditure taxes are to be preferred to income taxes. The reason for this is that expenditure taxes are easier and cheaper to collect than income taxes, since the former are automatically paid with the purchase while the collection of the latter usually requires a vast bureaucratic apparatus.

Thus one tax system may be preferred according to one criterion but not according to another. In the real world there is no perfect tax system, and as in many other economic alternatives, the ultimate choice is likely to be based on a series of tradeoffs between advantages and disadvantages.

Other Sources of Government Revenue

Taxation is not the only source of government revenue in Malta. A major source are profits from public enterprise and income from property. The Maltese government is directly and indirectly involved in entrepreneurial activities. Some institutions are completely owned by the government, and take the form of public corporations, operating under the general directives of the minister, and run by a board. Two such corporations which have contributed towards public revenues are TeleMalta Corporation and the Central Bank.

The government has an interest as a shareholder, and has invested money in a large number of enterprises, covering a wide spectrum of goods and services, including banking, shipbuilding, sea and air transport, and a variety of manufacturing activities. These investments were sometimes undertaken jointly with foreign governments or private enterprises. Not all these ventures have been successful, but some, such as the commercial banks and AirMalta, have regularly contributed to state finances.

Here again, the question as to whether or not the government should participate directly in productive activities is hotly debated. Arguments in favour include that government is justified in providing finance for invest-

ment in areas where the private sector is reluctant to invest, because of the risk of the large outlay involved. Arguments against include that the government tends to be inefficient as a direct producer, mostly because it can shelter itself against competition.

Table 7.2.
Sources of Government Revenue for Selected Years
### (Lm million)

	Total Taxes (*)	Profits	Income From Property	Transfers From Persons	Grants From Abroad	Other	Deprec- iation Provision	Total
1972	23.3	0.8	5.8	2.2	15.9	0.9	0.6	49.9
1976	45.8	0.4	18.3	3.3	14.8	1.0	2.6	86.2
1982	127.6	5.3	58.3	4.6	9.1	1.7	5.0	211.5
1986	131.4	16.7	37.4	5.7	1.3	1.6	6.8	200.9

(*) The difference between total taxes in Table 7.2 and in Table 7.1 is that the former are measured net of subsidies.

Sources: National Accounts of the Maltese Islands

The most important changes shown in Table 7.2 are that public enterprise profits have tended to increase their share of total government revenue since 1972, whereas grants from abroad have taken a much smaller share of government revenue.

FIGURE 7.3
SHARES IN TOTAL GOVERNMENT REVENUE (PERCENT)
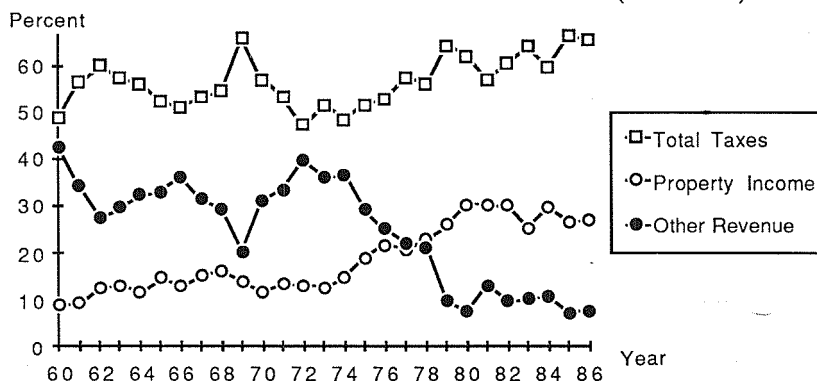
Government Expenditure

Government expenditure is another tool of fiscal policy. In general, it is undertaken for the following reasons:

(a) to provide *public goods*. Public goods, such as traffic signs are

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available to anyone whether one pays for them or not. Since users would not, as a general rule, be willing to pay for them (unless forced to do so by means of, for example, taxation) private business is not usually interested in producing them, and they are normally supplied by the government.

(b) to produce goods and services which private business would not produce either because of the large outlay or because of the risks involved.

(c) to reap the benefits of *externalities*. In some instances, the social benefit of producing a certain service, such as education, exceeds the amount of benefit by individuals receiving it. Private business, being guided by private profit rather than by social profit, might not, in these circumstances, supply an adequate amount of such a service. On the other hand, the government, if guided by social profit, would invest in education and provide such a service to as wide a section of the population as possible, for the benefit of society in general.

(d) to promote an even distribution of income and wealth. Government expenditures have an income and wealth distribution effect in that they may be directed at increasing the real income of poorer families, or at increasing their access to such important services as education, health and housing. Expenditures on welfare programmes fall in this category.

(e) to counteract cyclical fluctuations. Government expenditure may reduce the adverse effects of a slowdown in economic activity. For example, unemployment benefits automatically increase personal incomes of job seekers during periods of high rates of unemployment. Discretionery use of government expenditure, such as direct wage subsidies to firms, may also help to reduce certain undesirable effects of business fluctuations.

(f) to promote long term growth and development. Incentive packages to attract foreign investment and expenditures on infrastructural development fall in this category.

In Malta government spending has increased rapidly and changed its composition during the past decades. The following table shows the amount and shares of government spending for selected years since 1972.

Table 7.3.
Government Expenditure for Selected Years (Lm Million)

|	Goods and Services	Sub-sidies	Grants to persons	Capital Forma-tion	Net Lending	Other	Total
1972	19.8	2.4	7.8	6.3	11.0	2.3	49.9
1976	35.9	8.6	18.6	31.0	-10.6	2.7	86.2
1982	85.2	2.8	59.1	39.7	22.2	2.5	211.5
1986	89.5	4.8	66.4	30.5	7.5	2.2	200.9

Source: National Accounts of the Maltese Islands

It can be seen from Table 7.3 that government expenditure at current prices has increased fourfold since 1972. Of interest is that the only type of expenditure that has shown a consistent tendency to increase its share of total government expenditure are grants to persons, mostly in the form of social security and assistance. In percentage terms, these grants amounted to 15% of total expenditure in 1971, and to 33% in 1986.

Expenditure on goods and services has tended to fluctuate around an average of 41% of total expenditure. This type of expenditure goes on general administration, justice, police, civil defence, roads, waterways and sanitation, health, education and other community services.

Governnment expenditure on capital formation is divided into two broad categories, namely that on profit making activity, mostly machinery, and that associated with the general government, mostly construction. In recent years, public investment in trading organisations has tended to increase its share of public capital formation.

FIGURE 7.4
SHARES IN GOVERNMENT EXPENDITURE (PERCENT)
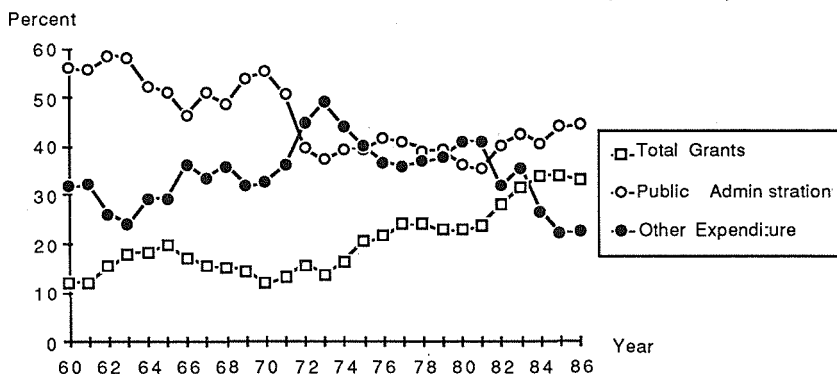
It is interesting to note that in most years a proportion of government revenue was utilised to finance private sector investment. One reason for this is that certain economic activities classified as private sector ones, are in reality set up through public investment. A case in point is the Marsaxlokk project.

Government and the National Economy

Economists are sometimes interested in measuring the size of the public sector in relation to the whole economy. As noted, government participates directly in the economy as a producer of goods and services and as buyer of

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FIGURE 7.5
THE RELATIVE SIZE OF GOVERNMENT
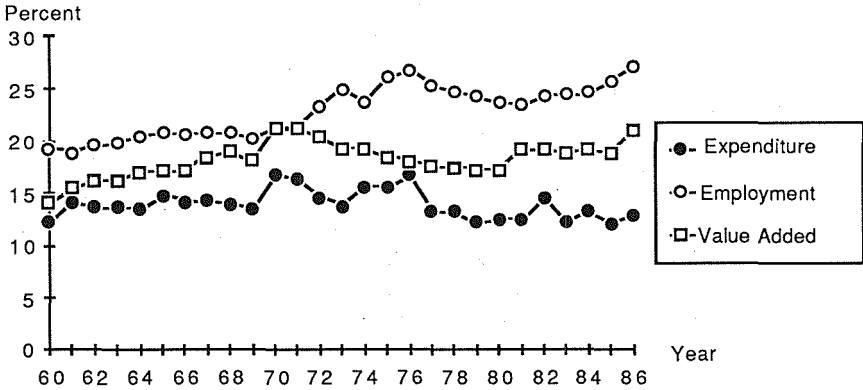
The figure shows that government expenditure (goods, services and investment) as a percentage of total final expenditure has tended to fluctuate around 14% between 1960 and 1986.

The value added share of government (public administration plus public corporations) has tended to increase during the sixties and to decrease during the seventies. It fluctuated around 19% during the eighties.

In terms of employment, the relative share of government has tended to remain stable during the sixties but rose rapidly between 1970 and 1976 after which year it decreased again. During the eighties it tended to increase reaching 27% in 1986.

It should be noted that government employment as measured in Figure 7.5 excludes that in certain companies in which the government has majority shareholding, such as the commercial banks. If such employment is added, the share of government employment would have been around 34% in 1986.

investment and consumer goods from the private sector. Economies, such as that of Malta, are called *mixed economies*, because the means of direct production are partly owned by the private sector and partly by the state.

An economy which is purely capitalistic would be based on *laisser-faire* and unbridled competition between private producers of all sorts of goods and services. In the modern world there is not one single country with pure capitalism, since in all countries governments take action to regulate the economy. For example, in the United States of America, a country which is associated with capitalism, government regulation and direct participation in production are widespread.

The debate on the extent of government intervention sometimes focuses on the advantages and disadvantages of relying on automatic market forces.

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The market mechanism performs two main functions, namely (a) allowing households and producers to determine the choices to be made regarding supply and demand of goods and services and (b) allowing the price mechanism to eliminate excess demand or excess supply, bringing about a tendency towards equilibrium. One major advantage of this process is that it tends to allocate resources automatically.

Some major disadvantages associated with reliance on the market system are that the market mechanism does not operate in the case of public goods, that certain social investments would not be undertaken on the basis of private profit alone, that certain profitable activities are socially undesirable (such as drug trafficking), and that spontaneous demand and supply forces sometimes need to be harnessed to ensure, for example, that enough resources are available for investment.

It is for such reasons that governments never rely exclusively on market forces. There are governments that only rely on market forces to a very small extent, and apart from drawing economic plans, they employ bureaucrats to implement the plans. This is the case in some Eastern European countries, where however, things seem to be changing, and reliance on market incentives appears to be on the increase.

Government and the Multiplier Process

Government taxes and expenditure play an important part in the multiplier analyses. Taxes are leakages from the domestic income flow. Thus an increase in tax rates would theoretically reduce the magnitudes of spending and responding associated with the multiplier process. In general, therefore, an increase in taxation, leaving everything else constant, would bring about a reduction in output and expenditure.

An increase in government expenditure is normally considered as an exogenous (independently determined) injection, which has a multiplied impact on the economy, depending on the magnitude of the induced leakages. A characteristic of government expenditure, especially on public administration, is that it has a very small import content compared to other exogenous expenditures, and it therefore has a relatively high multiplier effect.

The multiplier process will be described in detail in Chapter 17. Here we shall briefly discuss what is known as the *balanced budget multiplier*. The concept is used to show that if an increase in government spending is financed by an equivalent increase in tax revenue, the result would still be economic expansion through the multiplier process. The reason for this is that whereas government spending is totally a direct injection in the domestic income stream, the tax is not in its entirety a withdrawal, since

part of the tax would have been saved and withdrawn in any case. The expansionary effect of an increase in government expenditure is therefore larger than the contractionery effect of an equivalent increase in taxation.

An important implication of the *balanced budget* multiplier is that in the presence of unemployment, an increase in expenditure financed by an equivalent amount of tax would theoretically expand the economy and generate more employment. In other words, expansion is possible without *deficit financing*.

Is this concept relevant to Malta? Given the simple assumption just made, a balanced change inthe budget will have an expansionery effect. But this implication has to be considered in conjunction with other factors, such as the amount of imports induced by government expenditure during the multiplier rounds and the inflationery pressure brought about if the supply side of the economy does not expand in relation to the increase in demand. These factors will be considered in some detail in other chapters.

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PART THREE

MONEY, BANKING AND INFLATION

8

MONEY

Money has several functions. We buy things with it, and in this way it serves as a medium of exchange. Money also helps us to compare the value of things and therefore it serves as a unit of account. These two functions are often referred to as the primary functions of money. Money is also a standard of deferred payment in that debts are generally measured in money terms. Another function of money is that it serves as an asset, and its main attraction, compared to other assets, is liquidity, since money is very easily exchangeable into other goods.

A Brief History of Money

In modern times, the most commonly used forms of money are coins for small amounts, and notes or cheques for large amounts. In primitive societies, money took several forms, including seashells and precious metals. Coins were initially valued according to the amount of precious metal (e.g. gold or silver) they contained. With the passing of time, coins started to be minted with a standard size or weight, and with their value stamped and declared as such by some authority, generally the government. Eventually, the government stamp was replaced by other forms of guarantee of the authenticity of the coin, and this led to the development of the *token coin*, where the value of the coin did not depend on the amount of precious metal it was made of, but on the declared official value.

A major step in the development of money was the use of notes, convertible into precious metals. In England, this form of money evolved from the need to keep gold coins for safe-keeping at the goldsmiths strong rooms. Goldsmiths issued notes with a receipt on which it was stated that they would pay the holder of the note the amount of gold mentioned in the receipt. The signature of a reputable goldsmith was enough to render these notes acceptable in settlement for debts. Eventually, notes declaring that the bearer would be paid a certain amount in gold were also issued by

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banks.

In most countries today, the owners of paper money have no guarantee that they can exchange their notes into gold or silver on demand. But the fact that paper notes are officially declared legal tender renders them generally acceptable and suitable to fulfill the four functions mentioned earlier. One advantage of paper money is that it is easier to carry than coins.

In modern times, business transactions are often settled by cheque or by credit cards (plastic money). A cheque is an instruction to a bank to pay a given sum of money to a person (the payee) from the account of the person who signs the cheque (the payer). Paying by cheque is generally safer than paying by currency notes, since there are methods of ensuring that a lost or stolen cheque is not cashed by the wrong person. A recent development in the method of affecting payments is known as *electronic funds transfer at point of sale* where an account is debited and another credited immediately a purchase is affected.

Money in Malta

In Malta, coins have been used since ancient times, and coins dating from as early as the fourth century BC have been found. In general, the coins used in Malta were those of foreign rulers or countries with which the Maltese traded. Sicilian coins were used in Malta since the twelfth century and these were eventually susperseded by the coinage of the Order of St. John. During the first half of the nineteenth century, coins of the Order of St. John and foreign coins such as Sicilian dollars continued to be utilised for business. In 1855 Sterling was declared the sole legal tender currency in Malta, but it took almost thirty years for it to become effectively the only coin utilised on the island. By 1886, British coins were the only ones circulating in Malta, and they remained so until 1972, when the Central Bank of Malta issued a set of Maltese coins in decimal form.

The first Maltese bank-notes were private issues by the Banco Anglo-Maltese and by the Banco di Malta in the early nineteenth century. These notes were denominated in scudi, the standard unit of account of the Order of St. John, and were mainly used for business transactions. They were not however, accepted by government departments. When in the 1850's sterling was declared the sole legal tender in Malta, banks started issuing notes denominated in this currency.

Official currency notes were issued for temporary use during the two world wars. Between the wars, British notes in denominations of £1 and 10 shillings were utilised. In 1949, following the Currency Notes Ordinance, Maltese official notes were issued by the Currency Board for the first

time on a permanent basis. In 1968, the Central Bank of Malta took over the sole responsibility for the issuing of Maltese currency notes.

Data on the denominations of Maltese currency issued by the Central Bank is published regularly in the Central Bank quarterly review. At the end of 1986, about 98% of the Maltese currency in circulation consisted of notes, and the remaining 2% of coins. About 27% of the currency notes issued were Lm20 notes, about 59% were Lm10 notes, and about 12% in Lm5 notes. The remaining 2% consisted of Lm2 and Lm1 notes.

Money Supply

There are many definitions of money supply, depending on which function of money one is focusing on. For example, if one is interested in money as a medium of exchange, the most appropriate definition would seem to be notes and coins in circulation, plus private demand deposits. This quantity of money may be referred to as M1. Table 8.1 presents data on the Maltese money supply, as just defined, for selected years since 1962.

On the other hand, if one is interested in money as a store of value, then deposits in savings and fixed accounts (which are sometimes referred to as quasi-money) could be considered as forming part of money supply. Table 8.1 also shows the amount of quasi-money for selected years since 1962.

Table 8.1.
Money Supply in Malta for Selected Years (Lm Millions)

	Currency in Circulation	Demand Deposits	Total Money Supply	Savings Deposits	Time Deposits	Total Quasi Money	Total Monetary Assets
1962	23.9	6.0	29.9	17.7	31.9	49.6	79.5
1966	30.0	9.0	39.0	21.7	35.7	57.4	96.3
1972	62.4	11.8	74.2	36.9	78.5	115.4	189.6
1976	119.6	21.6	141.2	60.7	114.3	175.0	316.2
1982	259.6	35.0	294.6	100.3	172.3	272.6	567.1
1986	273.8	44.7	318.5	135.2	257.2	392.4	710.9

Source: Central Bank Quarterly Review

The table also shows total monetary assets since 1962. It can be seen that money supply as defined in Table 8.1 has increased considerably between 1962 and 1986, with the fastest increase occuring during the seventies.

Money supply may increase or decrease in response to demand by households and firms. For example money supply would expand when people need more currency for christmas shopping, either by drawing from past savings, or by borrowing from the banks.

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FIGURE 8.1A
MONEY SUPPLY IN MALTA

Lm Millions

FIGURE 8.1A
MONEY SUPPLY IN MALTA
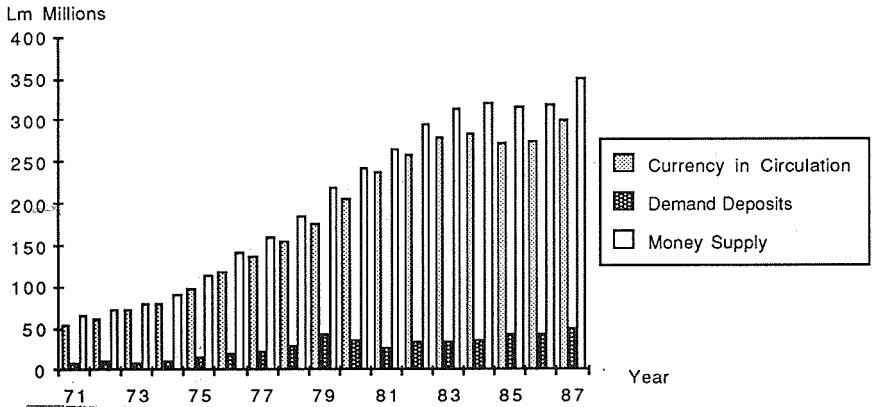
Credit activities by banks are important sources of money supply growth. Banks have an incentive to lend money to make profit, and new deposits permit the banks to create money through credit facilities. In general, the lower the commercial bank liquidity ratio required by the monetary authorities, the higher would be the proportion of total deposits that commercial banks are able to lend and, as a result, the greater is their ability to expand money supply.

As a general rule, the Central Bank supplies notes and coins to the Commercial Banks according to their needs to meet withdrawals, cashing of cheques and credit arrangements. But the Central Bank may influence

FIGURE 8.1B
TOTAL MONETARY ASSETS IN MALTA

Lm Millions

FIGURE 8.1B
TOTAL MONETARY ASSETS IN MALTA
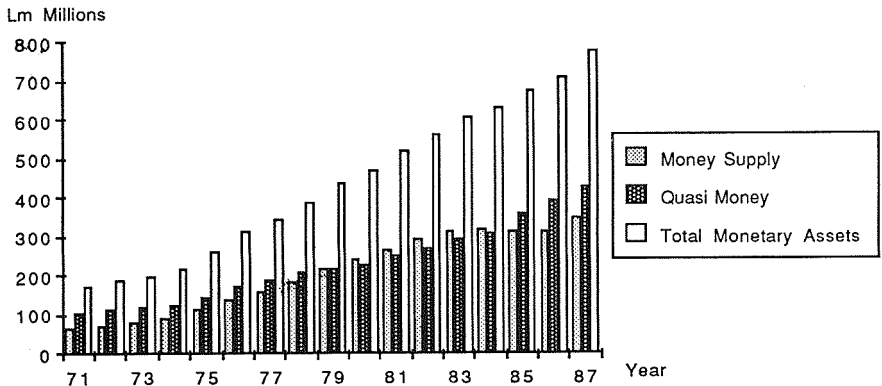
the money supply by making it easier or more difficult for commercial banks to extend credit, or for firms or households to borrow money. This question will be further discussed in the chapter on banking.

An important factor affecting money supply is the balance of payments. When a Maltese resident receives foreign currency, he is obliged in terms of the Exchange Control Act of 1972 to surrender the foreign currency to the banking system, in exchange of an equivalent in Maltese liri. The latter amount may be kept as cash, in which case it would increase money supply directly, or deposited in a bank, in which case it would give rise to a potential secondary monetary expansion, via bank lending.

On the other hand, when a resident requires foreign exchange to effect payments abroad, the reverse process takes place. Money supply is reduced directly when it is exchanged for foreign currency. If the domestic currency is withdrawn from a bank, a secondary contraction may take place.

In most years, the inflows of foreign exchange have exceeded the outflows on the current and capital account of the Maltese balance of payments, as will be explained in Chapter 13. Such surplus inflows tended to give rise to a net expansion of money supply. On the other hand, a deficit tended to give rise to a net contraction in money supply.

Demand for Money

Firms and households need money for several reasons. One motive is to pay for the goods and services they require. This is called the *transactions demand for money*, and is associated with the function of money as a medium of exchange. In general, the money balances that households or firms hold, increase as the value of transactions increases. Thus, for example, a household would be expected to require more money in order to support transactions in goods and services worth Lm100 a week than another family whose transactions are worth Lm50 a week. This type of reasoning also applies to firms that require money to pay for the inputs needed for production.

In general, the amount of money held for transactions purposes is less then the value of transactions during a given period. For example, a household earning Lm2400 a year, may use its income to buy goods and services of an equivalent amount, by holding only an average of Lm100 a month in the form of cash if its income is received monthly. The holding of cash is likely to be lower if the household's income is received weekly. In general, the more frequently people get paid, the lower is the amount of money held to finance a given amount of transactions during a given period.

The ratio of the total spending to a given amount of money supported by it, is referred to as the *velocity of money*. It may be defined as the average

number of times that a given unit of currency, say Lm1, changes hands in a given period usually a year. In textbooks of macroeconomic theory, this relationship is often represented as a graph, with transactions demand for money shown on the vertical axis and GNP in money terms on the horizontal axis. It is assumed that an increase in the money value of GNP would increase transactions demand for money, as shown in the following diagram.

FIGURE 8.2
TRANSACTIONS DEMAND FOR MONEY
A HYPOTHETICAL EXAMPLE
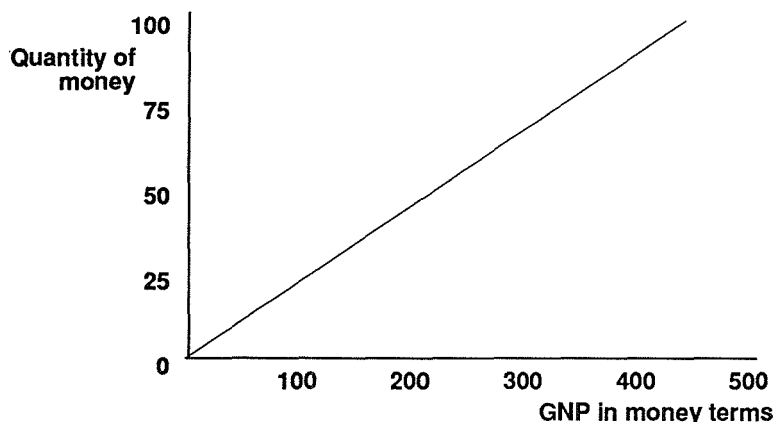
In the diagram, it is assumed that the transactions demand for money is a constant proportion of GNP in money terms, in this case 25%. In reality, the proportion may be larger or smaller, and may vary over time. Not very much is known about the proportion of money held for transactions purposes in Malta. As in other countries, in Malta, money is not held for transactions purposes only, but also for its own sake, because it has desirable properties as an asset. For this reason, it is not an easy task to draw a transactions demand for money diagram for Malta.

It is often argued that money balances are held for reasons other than transactions. One explanation for this is that money has attractions as an asset, because of its liquidity characteristic. Thus, for example, the going rate of interest may be perceived by certain households as being too low to compensate for the loss of liquidity associated with the buying of government bonds or depositing money in savings or fixed accounts. In macroeconomics, this type of *asset demand* is assumed to decrease as the rate of interest increases.

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In countries where the money market is developed and responds to the forces of supply and demand, households may hold "idle" money in expectation of an increase in the rate of interest so as to improve the rate of return from buying of bonds. This is called the *speculative demand* for money.

In macroeconomics much attention is given to this relation, since it was one of Keynes' innovative concepts. This relation is usually represented by a graph with the rate of interest drawn on the vertical axis and speculative demand for money on the horizontal axis, as shown in Figure 8.3.

It is assumed that as the rate of interest rises, fewer households would expect it to rise further, and therefore fewer households would want to hold speculative balances. This means that more and more households would want to buy bonds (or other interest bearing assets) in return. According to this assumption, a large amount of speculative balances are held when the rate of interest is low, and these balances are reduced as the rate of interest rises.

Liquidity preference for such speculative purposes is probably not of much relevance in the case of Malta since fluctuations in the rate of interest are minimal, and there is no active bond market in Malta.

FIGURE 8.3
SPECULATIVE DEMAND FOR MONEY
A HYPOTHETICAL EXAMPLE
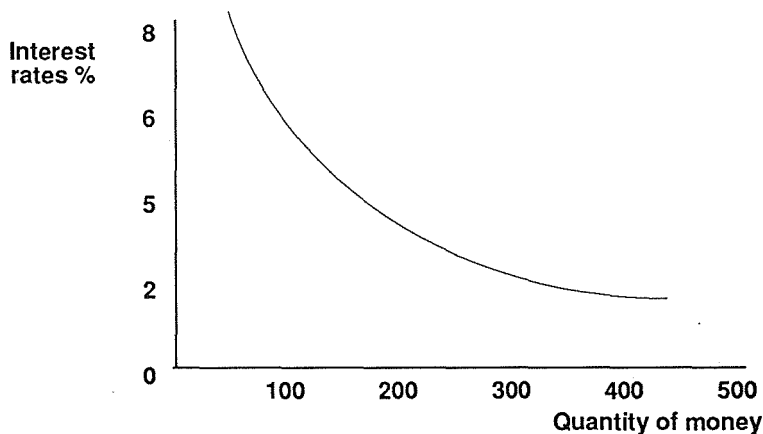
The speculative motive for holding money is related to expectations regarding future movements of interest rates on bonds (or long term deposits with fixed interest rate). The figure shows that at low rates of interest, large amounts of speculative balances are held, with many potential investors postponing the purchase of bonds in the expectation of rising rates of interest at some future date. This motive for holding money is not probably of much importance in Malta.

In all probability however, Maltese households do hold money over and above that required for transactions, mostly in the form of cash. The ratio of currency in circulation to the Gross National Product in Malta tends to be extremely high when compared to the same ratio in other countries. For example, in 1985, Maltese currency in circulation amounted to over 50% of GNP, whereas in many other countries this ratio ranged from 5% to 10%, during the same year. In Cyprus, which is a small Mediterranean island like Malta, the ratio for 1985 was just 7%. The source of these percentages is the I.M.F. Yearbook Financial Statistics (1986).

Apart from these international comparisons, an indicator that a large amount of cash is not used for transactions purposes is the fact that vast amounts of old notes were exchanged for new ones, at bank counters, when notice was given that an old issue was going to cease being legal tender. Other indicators are that one hardly ever sees Lm20 notes in circulation, presumably because most of these notes are hoarded, and that burglaries from houses, involving hundreds of thousands of Maltese liri, are often reported in the news media.

One question to ask here is what motivates Maltese people to hold so much cash. Traditionally, Maltese households held idle money balances to

FIGURE 8.4
COMPARATIVE CURRENCY AND MONEY SUPPLY RATIOS
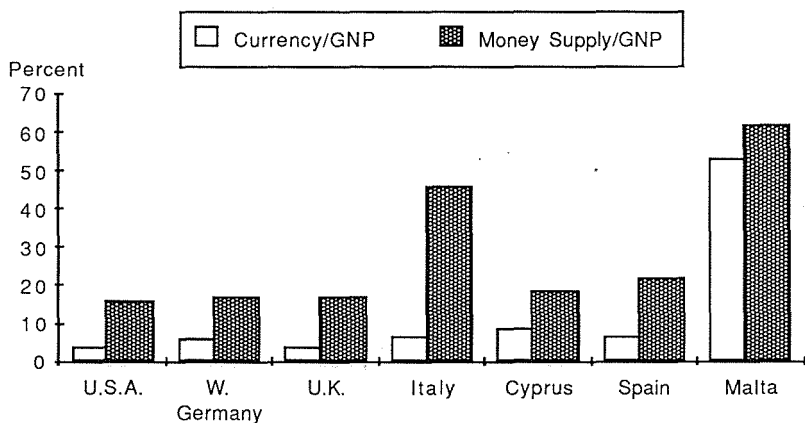
The Maltese ratios of money supply to GNP and currency in circulation to GNP are very high compared to the same ratios in other countries. This would seem to suggest that demand for money in Malta is very high in relative terms.
Source International Financial Statistics Yearbook.

meet unforeseen circumstances, such as a long illness or a sudden loss of income. In economics this motive is termed the *precautionery demand* for money. However, the commercial banks now offer special services for those who want to save for a rainy day, and precautionery demand is not probably an adequate explanation for the vast amount of cash held by Maltese households.

An important reason for holding cash is probably related to the underground economy, in which transactions are settled in currency so as to evade taxation. In this sense it is not, strictly speaking, correct to refer to such balances as "idle" holdings of money, since cash in this case is being used to finance transactions which are not officially recorded. A distinction could be made in this case, between "formal" and "informal" transactions demand for money.

Some Maltese households probably also hold "idle" cash for it own sake, rather than indulge in business activities. One reason for this could be that some people do not trust commercial banks (possibly through ignorance) or consider that the rates of interest and services offered by the commercial banks are unattractive when compared to the advantages in terms of flexibility and liquidity associated with cash.

Monetary Policy in Malta

Monetary policy refers to action taken by the monetary authorities (primarily the central bank) to stabilise the economy by adjusting or controlling money supply. The most commonly used instruments of monetary policy are (a) open market operations (b)measures which influence the rate of interest and (c) qualitative and quantitative controls on bank credit.

In developed economies, open market operations involve the buying and selling of government bonds by the central bank in the open security market. When the non-bank sector buys these bonds a reduction in commercial bank liquidity would most probably ensue as depositors withdraw their money from banks to buy bonds. Theoretically this should restrict the banks' ability to lend money. If the central bank buys bonds, it would pay for them by drawing cheques on itself, and this would ultimately result in an increase in commercial bank liquidity, and therefore in the ability of these banks to lend. Thus these types of operations may be used to bring about an expansion or a contraction of the money supply.

Open market operations may have an important effect on interest rates. Theoretically, when the central bank steps up demand for government bonds, it exerts an upward push on bond prices, thereby reducing the given (pre-established) rate of interest on bonds. For example a bond worth £1000 earning an annual return of £100 implies a rate of interest of 10%,

whereas if the price of that same bond increases to £1250, an annual return of £100 implies an interest of 8%.

A parallel theoretical effect occurs because when the central bank buys bonds, it expands commercial bank liquidity when paying for the bonds. The excess liquidity that would ensue in the banking system would tend to push interest rates downwards, thereby enabling banks to increase their lending.

In Britain, the Bank of England indulges in open market operations to stabilise interest rates, by, for example buying government bonds when the general public shows an increased tendency to sell them, so as to prevent bond prices from falling and interest rates from rising. On the other hand, the Bank of England sells bonds in an attempt to prevent interest rates from falling.

A central bank can influence interest rates in a more direct manner. The Bank of England, for example, can create a shortage of funds, thereby pushing up interest rates on short term borrowing, through the operations of discount houses. This would then effect other interest rates throughout the money market.

The monetary authorities may be empowered by law to change interest rates in a more direct manner. In Malta, for example, interest rates have been changed directly although very slightly, as part of government policy announced during the 1987/88 budget. Reasons for direct changes of commercial bank interest rates include the mopping up of excess cash holdings by the non-bank sector (which would require an increase of interest rates) and the encouragement of borrowing for investment (which would require a reduction of rates).

Another tool of monetary policy relates to direct changes in the amount of credit that banks can extend. For example, a central bank may request commercial banks to increase (or decrease) the ratio of the deposits held in specified liquid assets. Commercial banks may also be requested to increase (or decrease) their deposits in accounts held by the central bank itself. These requirements would theroetically discourage (or encourage) commercial bank lending, and thereby expand (or contract) money supply.

In Malta, policies relying on the operation of the money market have hardly ever been used, though reference to monetary policy was sometimes made in government economic plans. One reason for this is that in Malta, the market for government bonds is insignificant, and open market operations would not therefore have the desired effect on bank liquidity. Also, even if an active bond market existed, open market operations, as well as changes in the commercial bank liquidity requirements, would not have had the expected effect on the banks ability to lend, since these institutions normally hold vast amounts of liquid assets, which by far exceed the ratio

required by the Central Bank. Moreover, as already noted, the non-bank sector normally holds a large volume of cash, which may be utilised to finance the formal and the underground economy, irrespective of commercial banks liquidity requirements.

Some direct controls, related to the extension of credit by commercial banks have been imposed in terms of the Banking Act in the past. For example, for a time, commercial banks were not free to lend money to the Maltese tourist and clothing industries, because the government considered that the uncontrolled expansion of these industries was undesirable. In general however, monetary policy has played a very minor role in the control and direction of the economy.

Money Demand and Supply and Interest Rates

Theoretically demand for and supply of money would interact, and bring about changes in the rate of interest. The rate of interest may be defined as the cost of borrowing money as well as the income foregone when holding money. If there is excess demand of money, in relation to its supply, then market forces would, in theory, bring about a realignment of supply and demand, as those needing money, such as firms wanting to expand their business, try to attract funds by bidding up interest rates. On the other hand, excessive money supply would result in a fall in interest rates, as money holders, especially the banking sector, try to attract borrowers in their attempt to reduce excess liquid assets.

In other words, rate of interest adjustment would theoretically elimate excess supply or excess demand. When the money market responds in this way, the central bank would have more success in influencing interest rates through, for example, open market operations. Thus, for instance, if the rate of interest rises to some unacceptable level as a result of an increase in demand for money, the central bank can take steps to expand money supply with the aim of pushing down interest rates to some acceptable level.

In macroeconomic theory, the rate of interest is assigned a very important role in the determination of income. For example, when analysing the impact of an increase in autonomous expenditure (such as government spending), it is concluded that this would increase domestic output and income through the multiplier process. However an increase in output would be accompanied by an increase in demand for money, to support additional spending. If the market mechanism operates, such an increase in money demand would give rise to an upward push in interest rates. This would then increase the cost of borrowing funds, and discourage private investment, giving rise to a negative multiplier effect on the economy. In extreme cases, the rise in interest rates would wipe out the expansionery

FIGURE 8.5
DOES MONEY MATTER?

KEYNESIANS

A	B	C	D
Increase in money supply	Rate of interest falls	Investment rendered more attractive	The economy grows via the multiplier process

MONETARISTS

A	B	C	D
Increase in money supply higher than warranted by real economic growth	Demand pull inflation is ushered in	Inflationery expectations set in	Inflationery wage-price spiral is generated causing damaging instability
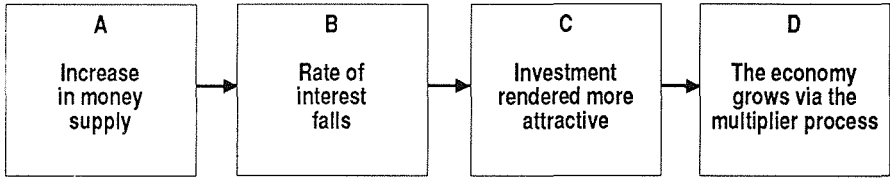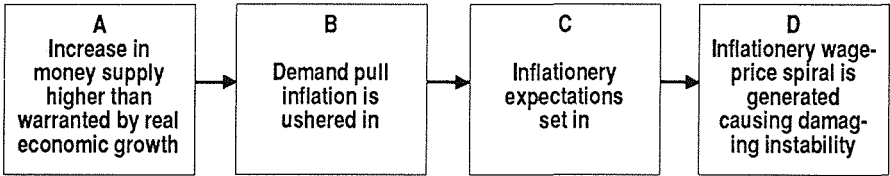
In general Keynesians trace the effects of monetary policy via its impact on interest rates, as shown in the movement from rectangle A to D in the top section of the diagram. However, Keynesians do not, as a general rule, attach major importance to monetary changes, holding that investment may not be very responsive to interest rates.

Monetarists, on the other hand, assign a central role to money supply. They believe that an increase in money supply would increase the money value of total output, in accordance with the Quantity Theory of Money. If the increase in the money value of total output is higher than the increase in real output, damaging instability would be brought about, as shown in the lower section of the diagram. They therefore suggest adherence to the monetary rule of increasing the money stock at a steady rate, not faster than the rate at which the economy can grow.

effect of the initial expenditure. In economic theory this is associated with the *crowding-out* effect, and is normally explained in terms of what is known as the IS-LM model.

This type of analysis, however, may not be of much relevance to the Maltese economy, since as already noted, the money market mechanism in Malta does not function as described in macroeconomic textbooks. As suggested earlier, one reason is that households and banks hold excessive amounts of liquidity, and this would probably require massive increases in demand for money to bring about a widespread upward push in interest rates.

Over and above this, there is the fact that interest rates are not allowed to fluctuate with market forces, but are administered by the central bank in conjunction with the minister of finance, so that even with a shortage of

liquidity, "official" interest rates would not respond freely to an increase in money demand.

This, however, may not be the case in the informal or underground money market. For example, an increase in economic activity may increase the demand for money to finance certain high risk investments in which the banks would not be willing to participate. In such a situation, it can be envisaged that borrowers would bid up "informal" interest rates to attract the desired funds.

Monetarism and Monetary Policy

A school of economic theory known as *monetarism* holds that the most important thing that the government can do is to keep an eye on money supply, and that there is no need for the government to get involved directly in economic stabilisation. Monetarists tend to take a long run view of economic realities, and believe that market forces will work effectively if they are allowed to operate. They therefore do not support the idea that government should use monetary or fiscal policy for short term adjustments. Monetarists (especially those labelled as *rational expectationists*) tend to believe that attempts by the government to stabilise the economy in the short run are either ineffective on real output and employment, or actually counterproductive, because such policies get in the way of the automatic market adjustment process. In general their prescription is that the money supply should be restricted to increase at a constant rate (say 4 percent) per year, depending on the rate at which the eceonomy can grow in the long run. This would help to keep interest rates and prices in check. Otherwise, the government should intervene as little as possible.

The monetarist stance also focuses on what is known as the Quantity Theory of Money. This is based on an equation which states that the total spending flow (denoted by M.V, which means the money supply [M] multiplied by its velocity [V] i.e. the number of times in which it circulates during a given period) is equal to the total value of the output (denoted by P.Q, which measures the quantity of output [Q] times its price [P] per unit). Thus the statement that $M.V = P.Q$ is true by definition. According to monetarists, the velocity of money, is fairly stable, so that if the money supply increases at a faster rate than the quantity of output, then the general price level must increase at a faster rate than Q.

Monetarists therefore attribute a causal effect to changes in money supply, and see a close and stable relation between money supply and the money value of aggregate output. They therefore assign a major role to money supply in economic analysis and policy implications.

Is this debate relevant to the Maltese economy? As emphasised many

times in this chapter, the situation in Malta as far as money is concerned, differs markedly from that of advanced countries such as the USA and the UK, in that a vast amount of cash is held by the non-bank sector and also in that the market for bonds is insignificant. Changes in money supply may not therefore effect the general price level, interest rates, and other macroeconomics variables as envisaged in economic theory.

However, the question of short run stabilisation policies is relevent to the Maltese economy. For example, the "hands-off" policy favoured by monetarists might have unpleasant results during periods of recession, since it implies that government should not take corrective action, even if the recession is partially induced by economic conditions in foreign countries, as often happens in Malta.

Many economists today do not take extreme monetarist positions, and uphold the view that reliance on market forces may very well have the desired results if the economy is operating at or near full-employment. But short-run compensatory fiscal or monetary action may be necessary to stabilise the economy in times of major economic disturbances.

The understanding of the market mechanism is indispensible to explain how demand and supply forces work automatically to adjust the economy along some long-run equilibrium path, but history has shown that these forces may not always act quickly and smoothly enough for this purpose. In some instances – some would argue that this is what happened during the great depression of the thirties – the economy may find itself in a downward disequilibrating spiral, which would cure itself through market forces only if unemployment and economic hardship reach disastrous levels.

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9

THE BANKING SYSTEM

In the previous chapter we saw that banks play a strategic role in the overall workings of the economy because they create money. This chapter gives a very brief history of the banking system in Malta and an account of the more important services offered by the Maltese banking institutions.

Brief Historical Background

Banking in Malta originated in the early 19th century with the establishment of the Anglo Maltese Bank in 1809, by some British merchants, and the *Banco di Malta* and the *B. Tagliaferro e figli,* in 1812, by Maltese entrepreneurs. In the 1830s three other banks started operations, one of which was the Government Savings Bank. By 1860, the banking system had expanded considerably, and constituted an integral part of business activity in Malta.

Another landmark in Maltese banking history occurred in 1881, when the Anglo-Egyptian Bank, a most pretigious banking institution, opened a branch in Malta.

During the nineteenth century, banking activity in Malta was mostly associated with business and military services. At the turn of the century Maltese banks started to take an active interest in personal savings, and competed between themselves to attract deposits from small savers.

Some important developments during the first half of the twenteeth century were the opening of a branch of the *Banco di Roma* in Valletta in 1911 and the expansion of the Anglo-Egyptian bank, which in 1921 was formally appointed as the Maltese government's banker. The name of this bank was changed to Barclays Bank (Dominion Colonial and Overseas) in 1925, after its parent company amalgamated with two other banks operating in British colonies.

Perhaps the most important post-war event, as far as banking history is concerned was the setting up of the Central Bank of Malta in 1968.

Another event of note was the cessation of operations of BICAL in 1972, following a run on the bank. BICAL had started operating in Malta a few years before. An important development was that in the mid-seventies, the two major commercial banks in Malta were nationalised through the setting up of the Bank of Valletta Ltd, (formerly the National Bank of Malta Ltd.) and Mid-Med Bank Ltd. (formerly Barclays Bank Ltd.).

The Central Bank Of Malta

In most developed and developing countries the most important institution in the banking system is the central bank. The Maltese central bank came into being in 1968, following the enactment of the Central Bank of Malta Act (1967). The principal functions of the Maltese central bank are:
(a) to issue legal tender currency notes and coins
(b) to control and administer external reserves so as to safeguard the international value of the domestic currency
(c) to influence the volume and supply of credit in order to promote economic development, consistent with monetary stability
(d) to foster the development of a capital market and promote a sound financial structure
(e) to act as banker to the government and to commercial banks
(f) to advise the government on financial matters

After 1949 and until the Central Bank of Malta came into being, the issue of Maltese paper currency was entrusted to a Currency Board which ensured that all local currency was backed by external reserves, held in the Note Security Fund. In 1968, the Central Bank took over the responsibility of issuing currency notes, and the Issues Office was established. The Central Bank now has the sole right to issue legal tender notes and coin, and provides for all matters relating to the printing and security of such notes.

The amount of notes issued by the Central Bank reflects the demand for cash by households and firms. Thus for example, more notes are usually issued during Christmas time and at the peak of the tourist season, when cash required to buy goods and services tends to exceed that needed at other times.

The maintenance of adequate external reserves is another important function of the Central Bank. Apart from backing the domestic currency, these reserves are a major source of revenue to the Bank. Profits made by the Central Bank are mostly passed on to the Government.

Under the Central Bank Act, the domestic currency together with the demand deposits of the Central Bank, have to be 60% backed by external reserves.

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The Central Bank is responsible for advising the Minister of Finance regarding the establishment of the external value of the Maltese lira. In practice the value of the Maltese lira is established by the Central Bank on the basis of a formula which takes into account changes in the US dollar exchange rate for certain foreign currencies, according to pre-specified weights. The formula weights were changed a number of times since the formula method was introduced in 1972, the over-riding stated objective being to contain imported inflation. In recent years the policy adopted by the monetary authorities was to seek to strike a balance between domestic price stability and the enhancement of export competitiveness.

In most countries, the implementing of monetary policy is generally left in the hands of the central bank. Monetary policy was discussed in Chapter 8. One important aspect of such policy is the control of lending by banks and other financial institutions. In turn this depends on the banks willingness or ability to lend, and the non-bank sector's willingness to borrow. For this purpose, central banks use special techniques to regulate or influence commercial bank liquidity and interest rates.

In Malta, commercial banks are required by the Central Bank to hold the equivalent of 25% of their deposit liabilities in the form of specified liquid assets, half of which are to be held domestically. By changing the liquidity ratio requirement, the Central Bank could theoretically influence the commercial banks' ability to extend credit.

Interest rates may be directly established by a central bank, or indirectly through to the discount mechanism and open market operations. As noted in the previous chapter, these tools of monetary policy are not probably effective in Malta. The Central Bank of Malta is empowered to establish rates of interest for commercial banks, but this tool of monetary policy is not commonly used in Malta.

A monetary tool used in Malta is direct control of bank credit. For example in view of the heavy dependence of the Maltese economy on the clothing, textile and tourist related industries, for a number of years commercial banks were prohibited from extending credit requested for the expansion of these industries.

An important role of the Central Bank is to act as banker to the banks, in that it can accept deposits from them. Maltese commercial banks have two types of accounts with the Central Bank of Malta, namely working balances held mainly for cheque clearing between the commercial banks themselves, and other balances held in call accounts. The Central Bank pays an interest to the commercial banks on the latter type of balances.

The Central Bank acts as banker for, and carries out banking transactions on behalf of the government. The Bank accepts deposits from the government, and may grant it temporary advances in case of budget

deficits, up to a certain limit (15% of the estimated recurrent budget), repayable by the end of the same financial year.

The Central Bank also extends financial advice to the government, and acts as its agent. The Bank is entrusted with the issue and management of Treasury Bills (short term government borrowing from the public and banks) and government loans.

The Central Bank of Malta is also responsible for permitting payments and transfer of money to abroad according to the Exchange Control Act of 1972. In this respect, it acts as agent to the Minister of Finance and Customs.

An important role played by the Central Bank of Malta is to inform the public about the domestic monetary scene through the publication of The Annual Report, The Quarterly Review and periodic press statements.

The Commercial Banks

Commercial banks are essentially borrowing and lending institutions. They borrow money from the general public at a given rate of interest, and re-lend a proportion of it at a higher rate of interest, with the aim of making profits.

In Malta there are three commercial banks, namely Mid-Med Bank Ltd., Bank of Valletta Ltd., and Lombard Bank Ltd. These accept current, savings and fixed deposits. They also offer a number of services to the business community and to private households including currency exchange, issuing of travellers' cheques, foreward exchange facilities, letters of credit, investment advice and safe custody of valuables.

Banks have to operate in such a way as to maximise profits, and at the same time ensure that depositors have confidence in banking activities. The public would be willing to keep deposits in commercial banks as long as they are confident that their money can be withdrawn. The commercial banks promote such confidence by keeping cash and other liquid assets (assets that can be turned quickly into cash) so that the demand for withdrawal of money is met. Given that such confidence exists, only a small proportion of deposited money is normally withdrawn at any one time.

Assets of Commercial Banks

The types of commercial bank assets which qualify as liquid are listed in the Banking Act (1970). The proportion of assets to be held in liquid form is established by the Central Bank and this amounts to 25% of total deposits. These liquid assets include notes and coins, which are perfectly liquid, and on which no profit is made. Commercial banks also hold liquid

FIGURE 9.1
COMMERCIAL BANKS LIQUID ASSETS
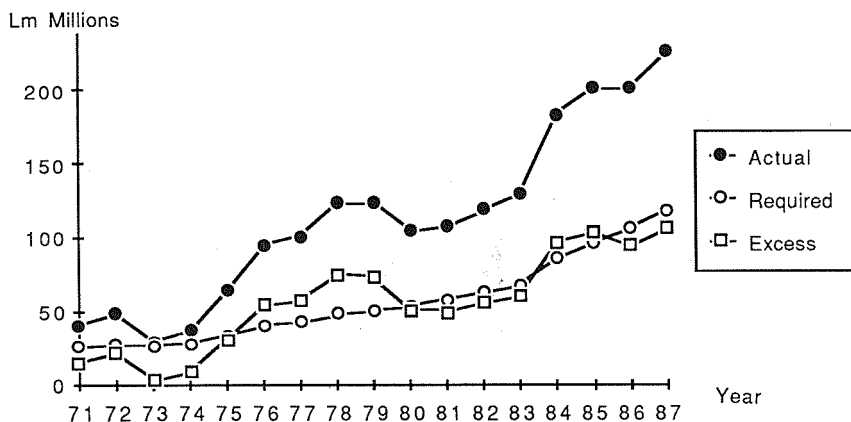
assets at the Central Bank of Malta in call accounts, on which an interest of around 5% is earned.

Other liquid assets include Malta Government Treasury Bills and inland bills of exchange, rediscountable at the Central Bank. These are short term loans and constitute a promise that the loans involved will be repaid at some future date, generally within three months or earlier.

Commercial banks are allowed to hold up to 50% of their liquid assets in foreign exchange, subject to approval by the Central Bank.

Maltese commercial banks tend to hold excessive liquidity. In 1986 this has amounted to about 50% of total deposits, as shown in the following table.

Table 9.1
Commercial Banks Liquid Assets for Selected Years since 1972

Year	Actual Amount (Lm Million)	Actual Per Cent of Deposits	Required By Law (25%) (Lm Million)	Excess (Lm Million)
1972	48.3	44.5%	27.2	21.2
1976	101.4	58.8%	43.1	54.1
1982	118.7	47.3%	62.8	55.9
1986	203.8	49.7%	102.8	101.0

Source: Central Bank of Malta – Quarterly Review

In general the more liquid an asset is, the lower would be the rate of return on it. Thus commercial banks earn no interest on cash, they earn about 5% on money at call at the Central Bank, and around 8% on longer term loans and advances. (See The Government Gazette Supplement, cf December 31, 1987 for a recent list of interest rates prevailing in Malta).

Maltese commercial banks are entitled to utilise up to 75% of the deposits for loans and advances. Advances may be made in the form of an overdraft, in which case borrowers are allowed to overdraw their current account by an agreed amount, and interest rate is paid on the amount actually utilised. In some cases borrowers are required to provide a collateral security. Banks usually advance money to their clients at a rate of interest which is 2% to 3% higher than that paid on fixed deposits. These types of transactions enable the commercial banks to earn profits from domestic sources.

However, profits from domestic lending are not the only source of revenue of Maltese commercial banks. As noted, Maltese banks have foreign assets, including deposits in foreign banks. A look at the accounts of Maltese commercial banks would indicate that over 20% of the gross operating income of these banks was earned on foreign investments.

Maltese commercial banks operate in the medium-term money market in that most of their lending is for three years. In exceptional cases they lend for up to five years. These banks are not normally allowed to invest in immovable property (such as houses). Their main line of operation is the financing of working capital for production, and of new projects which are expected to produce an adequate cash-flow within a reasonably short term.

The most important liabilities of commercial banks are demand, savings

FIGURE 9.2
COMMERCIAL BANK ASSETS – AVERAGES FOR 1980-1986

4.8% 2.4%
27.7%
47.5%
17.6%

Cash & Central Bank Deposits
Foreign Assets
Local Lending
Local Investment
Fixed Assets
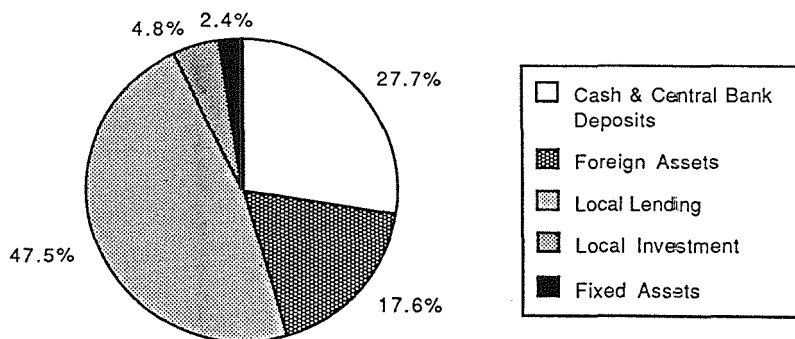
FIGURE 9.3
COMMERCIAL BANK DEPOSITS - AVERAGES FOR 1980-1986
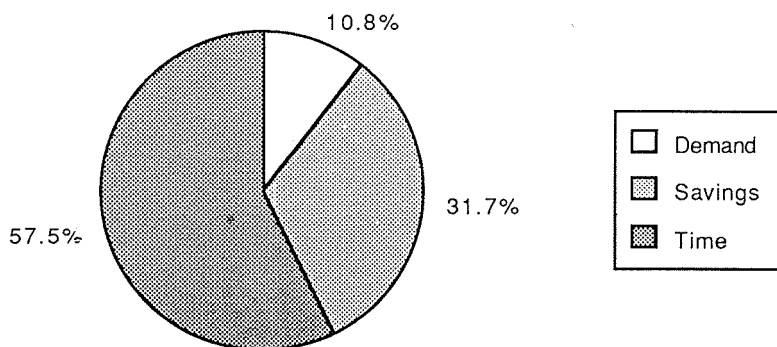
and time deposits. In recent years, about 60% of operating expenses by Maltese commercial banks consisted of interest paid on these deposits. Administrative expenditures, such as wages and salaries, accounted for most of the remaining 40% of expenses.

There are two other institutions which also accept deposits. These are the Apostleship of Prayer Savings Bank Ltd. which accepts savings and time deposits from small savers, and the Melita Bank International Ltd, set up in 1981. The latter is an offshore bank, and is licenced to accept deposits from non-residents of Malta and to lend only to non-residents.

Other Financial Institutions

There are institutions, other than commercial banks, which carry out banking activities. In developed economies one finds specialised institutions, such as the discount houses in Britain, which are involved in carrying out transactions in the short-term money market. In Malta, the money market is not as developed as that of Britain, and these types of institutions do not exist as a separate entity.

Some financial institutions such as building societies operate in the long-term money market. In Malta we have an institution, called Lohombus Corporation, which acts as a building society, in that it specialises in providing long-term funds (up to 25 years) for house building and for certain types of commercial properties.

The method of borrowing money from a building society is normally by mortgage. This means that the borrower obtains funds to buy a house, pays back the loan plus interests over an agreed number of years, and surrenders the ownership of the house as a form of collateral security until the loan plus interest are paid back. Lohombus Corporation is owned by the two

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major Maltese commercial banks.

Another Maltese institution operating in long-term lending is the Investment Finance Bank, which specialises in providing finance to companies, mainly for industrial and touristic capital projects. The Maltese commercial banks have a 50% stake in this institution. The remaining 50% of the shares are owned by a Libyan and a Sicilian bank, the Malta Development Corporation and by private industrialists.

The Investment Finance Bank is licenced to issue bonds in order to raise capital, to buy company shares and to underwrite share capital or debentures issued by industrial or commercial enterprise.

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10

INFLATION

Inflation may be broadly defined as an increase in the general level of prices. Usually the word inflation is applied to an *unhealthy* or *excessive* increase in the price level. There is no general agreement as to what rate of price increases is undesirable, but in recent times, a rate of increase of up to 4% per annum, has been considered as acceptable in some countries.

Apart from the question of definition, there is also the problem of measuring inflation. In official statements by the Maltese government the retail price index is often used as an index of inflation. Another indicator is the consumer price index, which covers a wider selection of goods and services than the retail price index. The retail price index is designed in such a way as to reflect changes in prices of a number of goods and services purchased by the average family. Each good and service is weighted according to its importance in a chosen basket of goods and services.

In the consumer and retail price indices, the weights chosen are kept constant for a number of years because it is a difficult and expensive task

FIGURE 10.1
PRICE INDICES (1973=100)

Legend:
- ·●- Consumer
- ·O- GDP (Implicit)
- ·■- Imports
- ·□- Exports
- ·▲- Retail Price Index
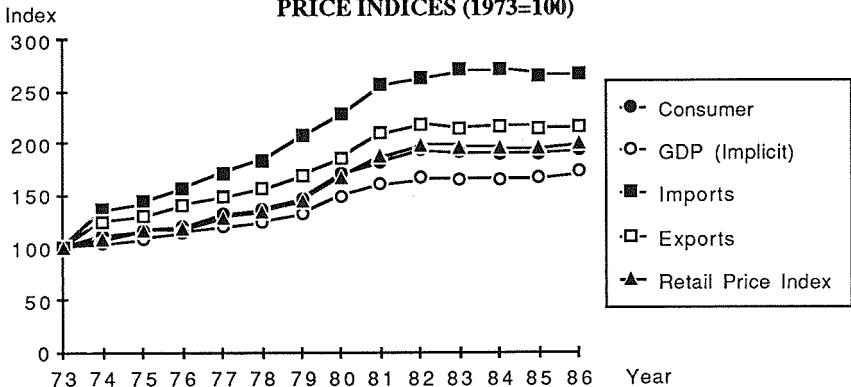
to change the weights every year. However, weights are occasionally changed to take account of updated information. Generally speaking, the weights assigned in the retail price index are derived from a survey of consumer expenditure.

Price indices are computed in relation to a *base year* weighted average cost of all the goods and services included in the chosen basket, and this is then assigned a value of 100. The weighted average current cost of the goods and services for other years is then expressed as a percentage of the base year weighted average cost. For example, the Maltese retail price index with 1983 as base year takes a value of 100 in 1983, a value of 99.6 in 1984, 99.3 in 1985 and 101.3 in 1986. These are yearly price levels with respect to that of 1983.

Very often economists are interested in measuring price changes rather than price levels. The retail price index just referred to indicates that the prices of goods and services in the basket decreased by 0.4% from 1983 to 1984 and by 0.3% from 1984 to 1985, and increased by about 2% between 1985 and 1986. The annual changes in the retail and consumer price indices are given in Table 10.1.

Another useful index of prices is the Gross Domestic Product implicit deflator. This index is called *implicit* because it is not constructed directly but is obtained as a ratio between GDP at current market prices and GDP at constant market prices. The GDP implicit deflator therefore measures the average price of goods and services produced domestically. Changes in the GDP deflator are also given in Table 10.1.

In an open economy such as Malta, import prices are likely to have an important effect on the general price level. The imports price index is therefore useful as an indicator of the extent to which imported inflation affects the final prices of consumption and exports. On the other hand, if one is interested in measuring the extent to which inflation affects Malta's price competitiveness, the export price index would be more relevent. Both the imports and exports price indices are a weighted average of the prices of groups of goods and services imported and exported.

Table 10.1 presents annual rates of change of the retail price index (RPI), the consumer price index (CPI), the GDP implicit deflator (GID), the import of goods and services price index (MPI) and the export of goods and services price index (XPI).

It can be seen that prices have tended to rise at very fast rates during the seventies, especially between 1977 and 1981, and to decrease or increase by very small percentages after 1982. The highest percentage increases occurred between 1979 and 1980 with respect to consumer prices and domestic value added. As regards export and import prices, the fastest increases occurred between 1978 and 1981.

Table 10.1.
Annual Rates of Change (Percent)
in General Price Levels

YEAR	RPI	CPI	GID	MPI	XPI
1973/74	+ 7.2	+11.3	+ 3.4	+ 3.6	+ 2.5
1974/75	+ 8.8	+ 4.7	+ 5.3	+ 6.0	+ 3.8
1975/76	+ 0.6	+ 2.5	+ 5.1	+ 9.0	+ 8.4
1976/77	+10.0	+10.6	+ 4.9	+ 9.2	+ 5.0
1977/78	+ 4.7	+ 3.6	+ 4.2	+ 7.2	+ 5.5
1978/79	+ 7.1	+ 7.3	+ 6.2	+12.4	+ 8.4
1979/80	+15.7	+15.9	+12.3	+ 9.9	+ 9.6
1980/81	+11.5	+ 6.7	+ 7.8	+12.4	+12.6
1981/82	+ 5.8	+ 6.3	+ 3.4	+ 2.6	+ 4.3
1982/83	- 0.9	- 1.0	- 0.3	+ 2.7	- 2.0
1983/84	- 0.4	- 0.4	- 0.2	+ 0.6	+ 1.1
1984/85	- 0.3	+ 0.0	+ 0.0	- 2.2	- 0.6
1985/86	+ 2.0	+ 1.6	+ 3.4	- 0.2	+ 0.3

Note: All indices with the exception of RPI are computed by dividing expenditure values at current prices in Table A, by values at constant (1973) prices in Table B of the National Accounts of the Maltese Islands. The source of the RPI is the Annual Abstract of Statistics.

Figure 10.2 shows in diagramatic form the annual changes in the consumer price index. The rapid increases during the seventies can be contrasted with the low rates of change during the sixties and the eighties.

FIGURE 10.2
PERCENTAGE CHANGES IN THE CONSUMER PRICE INDEX
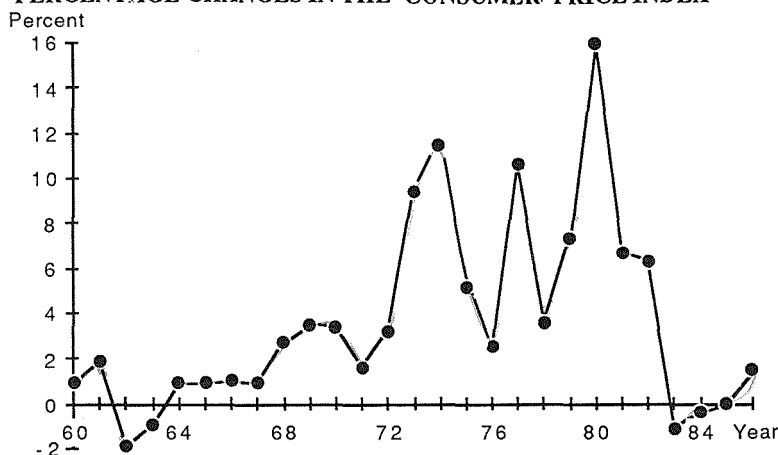
Control of Inflation

Generally speaking governments take action to control persistent and appreciable rises in the general price level. The reason for this is that inflation erodes the purchasing power of personal incomes, especially those of persons with a fixed income, such as pensioners. It gives rise to demands for wage increases to compensate for price increases, and this in turn tends to bring about industrial unrest. Perhaps the most important adverse effect of inflation is that it generates expectations of further inflation in the future, so that wage settlements and price adjustments are made with this assumption in mind. This in turn would give rise to spiralling inflationery pressures.

Another possible disadvantage associated with inflation is the loss of export competitiveness, and in an open economy such as Malta, this would have a marked effect on aggregate output and employment.

Inflation is usually classified under two broad headings, namely *demand-pull* and *cost-push*. Demand-pull inflation occurs as a result of excess demand, which may be brought about, for example, by excessive government spending in an attempt to expand the economy at a faster rate than it can actually grow. Monetarists explain demand-pull inflation in terms of excessive growth in money supply. This relation is often expressed in terms of the Quantity Theory of Money equation explained in Chapter 8.

Cost-push inflation, on the other hand, occurs as a result of increases in the cost of production brought about, for example, by increases in wages, profits or prices of industrial supplies.

Identification of the sources of inflation is important because the control of demand-pull and of cost-push inflation may necessitate different policies. For example, restrictive fiscal policy (aimed at reducing aggregate demand) and restrictive monetary policy (aimed at reducing money supply) are theoretically more suited for demand-pull inflation.

Cost-push inflation is a supply-side phenomenon, and controlling it may require a different set of tools. For example if the cause of inflation is found to be excessive wage demands, than a wage guideline/control policy may be appropriate. If excessive profits are the cause, and these originate from monopolistic arrangements, then the appropriate policy could be that of attempting to break such arrangements. If the increases in the cost of industrial supplies originate mainly from abroad, as is the case in Malta, the appropriate policy could be that aimed at reducing import prices (through for example exchange rate manipulation).

It is sometimes argued that cost-push inflation cannot persist independently of demand-pull inflation, and that therefore, the only successful

policies are those aimed at eliminating excess demand, through for in-
stance, restraint in government spending and in the growth of money
supply. According to this argument, an autonomous increase in wage rates,
for example, would not give rise to persistent inflation, since the initial
increase in the final price of production would theoretically reduce demand,
causing a decrease in output and employment,and, through the workings
of market forces, wage rates and prices would fall back to their equilibrium
levels.

This means that unless sustained by increased autonomous demand (in
other words, unless a shift in demand occurs simultaneously), market
forces would tend to automatically control inflation. According to this line
of reasoning, cost-push inflation would persist if it is complimented by fiscal
and monetary policies aimed at artificially reducing unemployment.

The Phillips Curve

This leads to the well-known phenomenon in modern macroeconomics,
namely the difficulty of reducing unemployment and attaining price
stability at the same time. This dilemma is often explained in terms of what
is known as the *Phillips Curve*, after the economist A.W. Phillips, who in
the 1950's showed that for almost a century fast wage money rate changes
tended to occur with low rates of unemployment. This suggested that there
had been a trade-off between unemployment and inflation, in that if a lower
rate of unemployment were to be attained, higher rates of inflation would
have had to be accepted.

The rate of unemployment can be viewed as an indicator of excess
demand within the economy, where a given positive unemployment rate,
say 5%, is compatible with full employment of resources. With the adoption
of policies to reduce unemployment below this rate, excess demand within
the economy would occur, giving rise to inflation.

A version of the Phillips curve is shown in Figure 10.3, where the
changing slope of the curve indicates that faster money wage rate changes
would occur as the rate of unemployment takes lower values.

It is now generally agreed that the Phillips curve is not stable, in that
it tends to shift over time, so that it is difficult to predict an inflation rate
compatible with a given rate of unemployment. For example, in many
countries, higher unemployment rates were registered with given inflation
rates in the seventies and the eighties, when compared to the fifties and
sixties. This phenomenon can be represented by upward and outward shift
of the curve shown in Figure 10.3.

Most economists agree that there exists unemployment caused by such
factors as structural changes in the economy and labour market frictions,

FIGURE 10.3
HYPOTHETICAL SHIFTS IN THE PHILLIPS CURVE
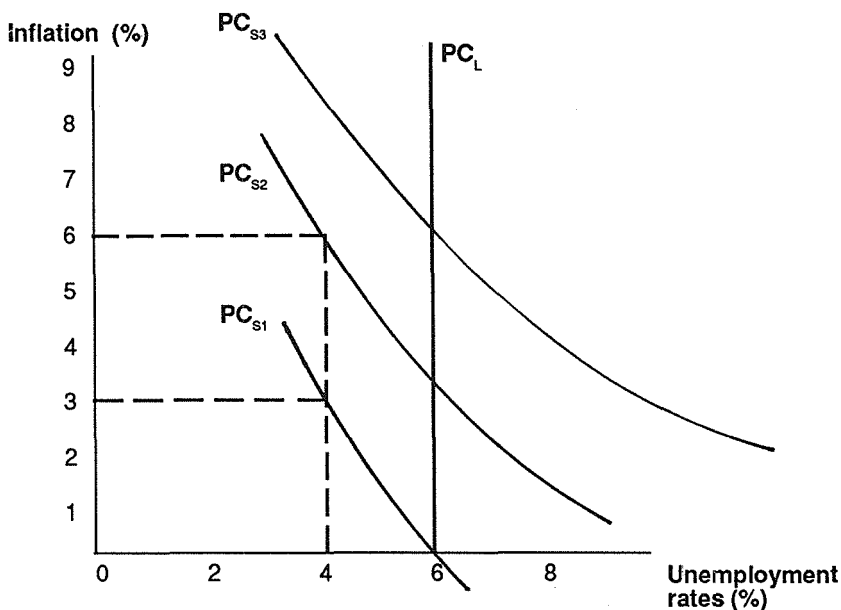
A point of view associated with monetarism is the accelerationist argument. This states that we may achieve lower rates of unemployment, if we accept higher levels of inflation, only in the short run. This is shown by the movement along the short run Phillips Curves, say along the PC_{S1} curve. According to this argument this position cannot persist since the presence of inflation would accelerate as people attempt to defend the purchasing power of their income. The reason for this is that inflation creates expectations of future inflation, and this brings about demands for wage increases as compensation for the rising cost of living. As a result, a given rate of unemployment, say 4%, which previously co-existed with a 3% inflation (as shown in PC_{S1}), becomes compatible with a 6% rate of inflation (as shown in PC_{S2}). These shifts in the Phillips Curve would usher in expectations of higher inflation rates, and further shifts in the Phillips Curve, as shown in the diagram, and the wage-price spiral gathers momentum. According to this line of thinking, in the long run there is a *natural rate of unemployment* towards which the actual rate would tend to gravitate. The points in the shifting short run Phillips Curves at this unemployment rate trace the long run Phillips Curve, shown as PC_L. This line represents the points where people have adjusted to the prevailing rate of inflation. In other words the accelerationist point of view is that there is no long run trade-off between inflation and unemployment.

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which cannot be reduced to zero. This means that no matter how hard they try, governments cannot use expansionery fiscal and monetary policies to eredicate this type of unemployment. Due to this, there exists a rate of unemployment consistent with labour market equilibrium and wage stability. This rate of unemployment is sometimes referred to as *the natural rate of unemployment*, and is associated with Milton Friedman, who in 1968, suggested that in the long run this rate of unemployment is independent of the rate of inflation.

According to monetarists, the application of expansionery policies to reduce unemployment below its natural rate would only succeed in pushing up prices, and in the long run worse and worse trade-offs between unemployment and inflation would be achieved. One reason for this is that when labour demand is excessive, compared to the level that can be supplied by the labour market, producers would start bidding against each other for workers, offering higher wages, and charging higher prices to compensate for higher labour costs. This would result in further rounds of claims for wage-rate increases to defend the purchasing power of employee income, and an inflationary spiral would ensue. The expectations of further inflation in the future would enhance the inflationary pressure already existing.

According to monetarists, therefore, expansionary policies would not bring about a reduction in the rate of unemployment below its natural rate in the long run, but only a higher rate of inflation.

It is not easy to empirically test the *Phillips Curve* hypothesis for Malta, and to measure the magnitude of the natural rate of unemployment. There seems to be some evidence to suggest that in Malta price and wage increases tended to vary inversely with the rate of unemployment. For example, between 1967 and 1970 and between 1976 and 1980, when the rate of unemployment tended to be relatively low, domestic prices tended to rise very rapidly. On the other hand, during the first half of the sixties, of the seventies and of the eighties, when the rates of unemployment were relatively high, prices tended to be relatively stable.

However, the rates of inflation associated with given rates of unemployment were much higher during the seventies than during the sixties , suggesting that the Phillips curve, if it existed, had shifted over time.

This relationship however should be interpreted with great caution in the case of Malta. The *Phillips Curve* argument is based on the interplay of market forces. As stated, unemployment is assumed to be an indicator of excess demand or excess supply which through the market mechanism would increase or decrease wage rates. In Malta, unemployment was at times reduced by means of government employment in labour corps, so that the existing unemployment rates may not have reflected market forces.

Similarly wage rate changes in Malta were generally influenced by government legislation and collective bargaining. Wage changes therefore may not have been the outcome of market forces only.

Some comments regarding the natural rate of unemployment in Malta are in order here. Most economists agree that the existance of market frictions such as (1) skill mismatches (2) lack of mobility and (3) lack of knowledge of job vacanies may give rise to an unfilled job vacancies. Under these circumstances, even if there are enough jobs for all those willing to work, unemployment would still exist. In Malta, when the economy was performing at its best during the late sixties and late seventies, unemployment, at its lowest, amounted to 3 to 4 percent. However, it could be argued that these very low rates of unemployment were lower than the natural rate, and could only have been attained in the short run and at the expense of rapidly accelerating inflation rates.

The 8 to 10 percent rates of unemployment experienced during the first half of the sixties and of the eighties (see Figure 4.7) could be regarded as higher than those compatible with structural changes and market frictions only, and were probably partially caused by deficient demand. In both periods, the economy was performing very badly in terms of aggregate real output.

Looking at the inflation-unemployment trade-off in this context, one can discuss the policies adopted by the Maltese government in the face of the very high unemployment rates between 1982 and 1986. To the extent that some unemployment was caused by deficient demand, attempts to attain economic expansion through for example, export promotion and direct government expenditure, would have reduced unemployment to a more acceptable level, given that excess capacity existed in the Maltese economy.

As is well known, the Maltese government adopted a wage-price control policy with the aim of maintaining export competitiveness and promoting employment. During 1986 and 1987, the government also spent money directly to generate employment in the public sector. Let us, for the sake of the argument, assume that these policies were successful in reducing unemployment below the level compatible with the natural rate. What would have happened then?

According to the arguments just presented, this would have given rise to rounds of inflationary pressures, with higher wage settlements being followed by price increases, followed by still higher wage settlements, and so on and so forth. In the case of Malta, this would have had major adverse affects on export competitveness. As a result, unemployment would have increased again. In technical jargon, this would have shifted the *Phillps Curve* outward and rightward, without permenantly decreasing unemployment beyond its natural rate.

Does it follow therefore that Malta must accept a given natural rate of unemployment, say 5%, without being able to do anything about it? In theory, there is a method of reducing the natural rate of unemployment itself, by reducing market frictions through for example, retraining schemes to decrease skill mismatches and through improved information regarding job vacancies. Such policies are aimed at making the labour market work more efficiently by bringing closer together those seeking employment and those offering jobs. If such policies are successful, then lower structural and frictional unemployment rates would be attained with given inflation rates.

Inflation and Incomes Policy

It is usually agreed that inflation is not desirable, and that something needs to be done not to fuel it.

In Malta, the general price levels of a number of basic items, such as foodstuffs, have been controlled between 1983 and 1987 through direct government intervention. This however was attained at some cost, including the appreciation of the exchange rate of the Maltese lira to contain imported inflation, which adversely affected export competitiveness, and direct wage controls, which were partly responsible for the stagnating domestic demand during this period. In some instances, the price fixing of certain goods and services generated black markets and artificial shortages. Moreover it is claimed that the discretionary government power, associated with direct controls, was at times a threat to democratic government. Did the controls, intended to cure inflation, produce worse results than the diseases they were supposed to cure?

The introduction of direct controls, even of a much milder kind, in other countries, such as the wage-price guideposts in the USA, and the incomes policies adopted by the British Labour government in the seventies, were likewise burdened with severe disadvantages, and it is sometimes argued that they have done more harm than good.

An option for controlling inflation without direct controls is letting market forces do the whole job for us. In some circumstances, this would probably require a massive recession. Experience has shown that even in an economy with zero growth, inflationary pressures would be at work. Many countries have experienced what is known as *stagflation*, where the general price level rose rapidly while real GNP grew at almost zero rate, or even actually decreased. To many, the prospect of a decline in economic activity, and the high rates of unemployment that this creates, would be as bad, if not worse, than inflation itself.

There have been many attempts in other countries to find some sort of

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solution which does not entirely rely on market forces, but at the same time avoids the problems associated with direct controls. One of them is a carrot and stick approach, called taxed-based incomes policy (TIP). One such scheme (associated with H. Wallich and S. Weintraub) is the imposition of a tax on employers paying higher wage rates than certain guideline wage rates, related to labour productivity. This penalty would then serve as a disincentive for firms to freely grant wage increases. An alternative method (associated with A. Okun) is rewarding firms that follow the wage rate guidelines by granting them a tax reduction. This would serve as an incentive for firms to abide by a pre-established standard. Both these types of incomes policies aim at controlling inflation without abolishing the operation of market forces.

Is a tax-based incomes policy suitable to control inflation in Malta? It may help to maintain domestic wage stability, and therefore contain inflation which originates domestically especially if it finds cooperation from the trade unions. However such a policy would not be of any use with respect to imported inflation. It would seem that an open economy like Malta has very little options, other than appreciating its exchange rates, to effectively control this latter type of inflation. As noted, however, exchange rate appreciation has undesirable effects on export competitiveness

All this goes to show that the control of inflation is not an easy task. However, a discussion on inflation, such as the one carried out in this chapter, is important because it enables us to understand that inflation is not just the result of a central bank printing more money, or of a trade union demanding an increase in wage rates. It is a complex process originating from the supply side as well as the demand side of the economy, and its control also requires a multifaceted approach, as is, after all, the case with other macroeconomic objectives.

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PART FOUR

INTERNATIONAL
ECONOMIC
ASPECTS

11

EXPORTS
AND EXPORT COMPETITIVENESS

Malta depends to a very large extent on exports of goods and services for its foreign exchange requirements. Before the fifties, Malta's exports consisted mainly of services connected with the British military and naval base. The share of merchandise exports was relatively very small.

With the growth of the manufacturing sector and the expansion of the tourist industry, the volume of Maltese exports grew at a very fast rate. During the sixties and the seventies, there was a marked change in the composition of exports, since the share of merchandise exports increased, reaching about 60% of total exports during the eighties. Exports of services now consist mostly of tourist and transport related services, rather than activities connected with the British military presence.

Another notable change with respect to exports is that during the fifties and sixties, the United Kingdom was Malta's most important buyer of Maltese merchandise exports, but during the seventies and the eighties, West Germany became Malta's most important client for such goods.

Table 11.1.
Maltese Domestic Merchandise Exports for 1986

Category of exports	Lm Million	%
Food (mostly processed food)	4.5	2.3
Beverages and Tobacco	4.9	2.5
Crude Materials (mostly scrap metal)	1.3	0.7
Chemicals	2.4	1.2
Semi-manufactures (mostly textiles, rubber and leather)	20.2	10.4
Machinery (mostly electrical components)	45.1	23.2
Finished manufactures (mostly clothing)	101.9	52.4
Re-exports	14.3	7.3
Total merchandise exports	**194.6**	**100.0**

Source: Economic Survey 1987, Table VI.4

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FIGURE 11.1
SHARES IN MALTESE MERCHANDISE EXPORTS (1986)

Pie chart segments: 7.3%, 2.3%, 1.9%, 10.4%, 2.5%, 23.2%, 52.4%

Legend:
- Food
- Semi Manufactures
- Beverages & Tobacco
- Finished Manufactures
- Machinery
- Chemicals & Crude Materials
- Re-Exports
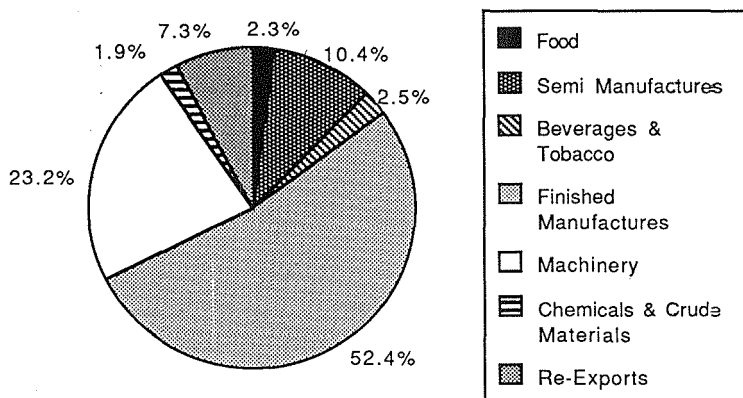
The Composition of Maltese Exports

Maltese exports of merchandise consist mainly of clothing and electrical components. Table 11.1 shows the value and the percentage distribution of the most important categories of merchandise exports in 1986.

Table 11.2.
Maltese Exports and Re-Exports by Destination

Country	Lm Million	%
West Germany	61.9	31.8
United Kingdom	26.5	13.6
Netherlands	8.0	4.1
Belgium	2.5	1.3
Italy	21.0	10.8
Other EEC	9.7	5.0
Total European Community	**129.6**	**66.6**
Other European	18.2	9.4
African Countries (mostly Libya)	11.1	5.7
American Countries (mostly USA)	16.2	8.3
Asian Countries	14.4	7.4
Australia	0.2	0.1
Ships/Aircraft (Stores & Bunkers)	4.9	2.5
Total Exports	**194.6**	**100.0**

Source: Economic Survey 1987, Table VI.5.

FIGURE 11.1
DESTINATION OF MALTESE EXPORTS AND RE-EXPORTS (1986)

EEC

- West Germany
- United Kingdom
- Netherlands
- Belgium
- Italy
- Others

- EEC
- Other Europe
- Africa
- America
- Asia & Australia
- Ships/Aircraft
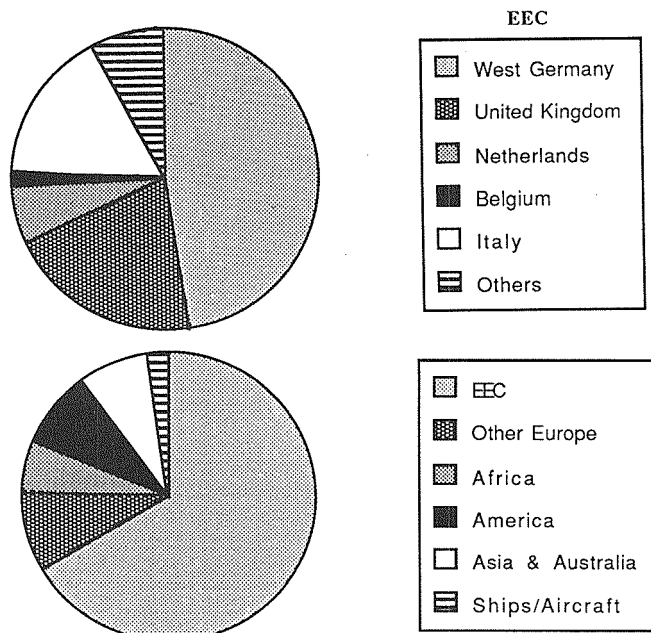
Table 11.3.
Maltese Exports of Services (1986)

Category of Exported Service	Lm Million	%
Tourist related exports:	79.4	49.4
Tourist personal expenditure	45.0	
Hotel expenses	33.3	
Transit/cruise passengers	1.1	
Transport related exports:	49.8	31.0
Freight/Insurance on foreign trade	7.0	
Passenger fares	18.4	
Port services	4.1	
Ships/aircraft repairs, bunkering	5.7	
Charter hire and miscellaneous	14.6	
Other exported services:	31.5	19.6
Government (eg diplomatic missions)	5.2	
Other private services	26.3	
Total Exports of Service	**160.7**	**100**

Source: National Accounts of the Maltese Islands, Tables 31-35

These exports were mostly directed to European countries as shown in Table 11.2. It can be seen that most of Malta's exports go to West Germany, the United Kingdom and Italy.

Malta also exports a variety of services as shown in Table 11.3. It can be seen that the bulk of Malta's exports of services are related to travel (mostly personal and hotel expenses by tourists) and transportation (mostly revenues from AirMalta and port dues).

FIGURE 11.3
SHARES IN MALTESE EXPORTS OF SERVICES (1986)
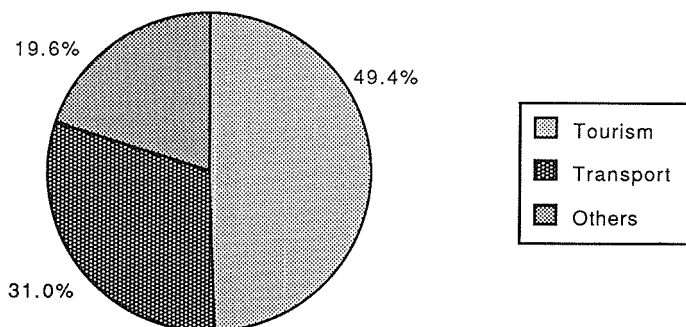
Exports of services account for about 40% of total exports, which goes to show that production of services in Malta is not only a source of employment and income, but also an important source of foreign exchange inflows. As in the case of merchandise exports, the most important buyers of Malta's services were countries of the European Community.

Factors Affecting Malta's Export Competitiveness

The value of exports changes from year to year. One reason for this is that export prices change. For example, between 1973 and 1986, the prices of exports had on average more than doubled, so that even if the volume of exports had remained constant between 1973 and 1986, the value of exports would in 1986 have more been more than double that of 1973.

The cost of exports in Maltese liri is influenced by the price of imports and by the price of domestic factors of production (eg. labour) utilised to produce exported output. When measured in foreign currency, the price of Maltese exports is also influenced by the exchange rate of the Maltese lira. Thus, if the value of the Maltese lira in terms of sterling increases, the price of a given exported good or service would also increase in terms of sterling.

An increase in the external value of the Maltese lira is referred to as

revaluation or appreciation, whereas a decrease is referred to as a devaluation or depreciation. Generally speaking, the terms revaluation and devaluation are used under a system of fixed exchange rates, whereas the terms appreciation and depreciation are used under a system of flexible exchange rates. A revaluation is expected to increase the external price of

FIGURE 11.4
THE EFFECT OF A DEVALUATION OF THE MALTESE LIRA
ON EXPORTS, OUTPUT AND EMPLOYMENT
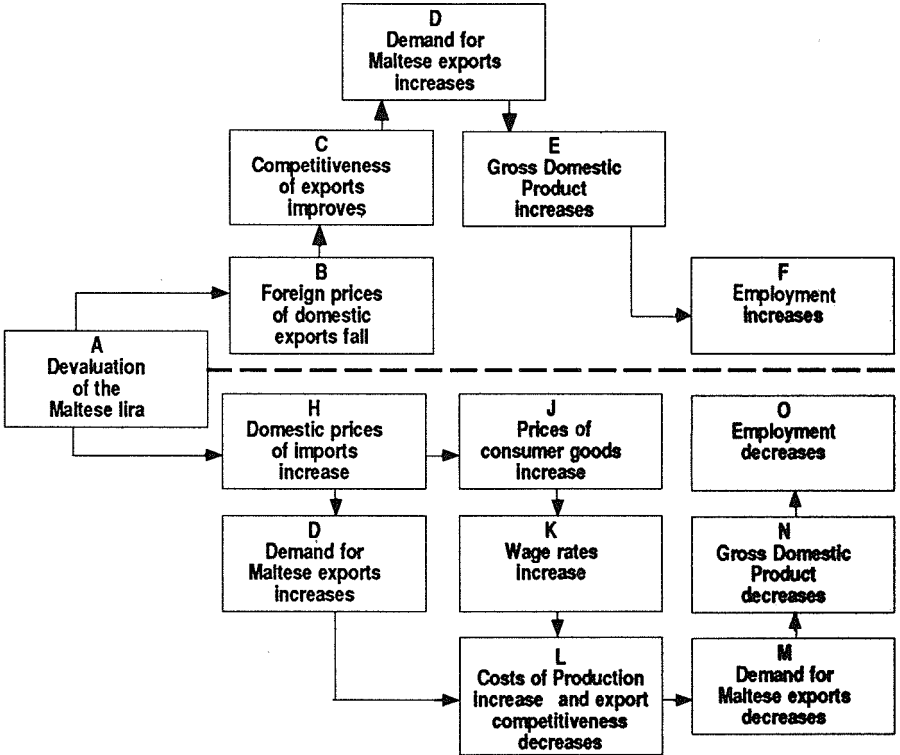
The effects of a devaluation can be divided into two, namely a direct and an indirect effect. The direct effect is shown in the top section of the diagram. Most probably a devaluation would increase exports, output and employment.

The indirect effect is shown in the bottom section of the diagram where it is shown that a devaluation would push up costs of production and therefore adversely effect exports, output and employment.

The final outcome on output and employment depends on the relative strengths of the direct and indirect effects.

exports, rendering them less competitive, whereas a devaluation is expected to decrease the foreign price of exports, rendering them more competitive, everything else remaining constant.

An area of great interest is the extent to which a devaluation of the Maltese lira would improve Malta's export competitiveness and Malta's export performance. Empirical work on demand for Maltese exports [see Scicluna (1984) and Briguglio (1988)] would seem to indicate that Malta's export performance tends to be very sensitive to the foreign currency price of exports, everything else remaining constant.

A devaluation would affect the foreign currency price of exports in a number of ways. The immediate effect would be that foreigners would be able to buy Maltese exports at a cheaper price. However, a devaluation would also push up domestic prices because it affects the prices of imported raw materials. It would also increase the price of consumer goods, which would probably give rise to demands for wage increases. These in turn would tend to increase costs of production. Thus a devaluation has two opposing effects on export prices as shown in Figure 11.4.

Another factor to consider when analysing the effects of a devaluation is the extent to which domestic producers can respond to an increase in export demand. For example, in a situation of full employment, domestic producers may not be able to meet demand. Alternatively they may attempt to attract resources from other industries by bidding up factor rewards. This in turn would adversely affect export competitiveness.

The effect of a devaluation on exports may be enhanced or offset by factors external to the Maltese economy. Thus for example, if "competitor" countries devalue their currencies, or reduce the prices of their exports by some other method, they would improve their export competitiveness with respect to that of Malta. If such a change occurs when the Maltese lira is devalued, the competitive edge gained as a result of a devaluation in Malta could be partially or completely wiped out.

Economic reasearchers investigating the effect of exchange rates on export performance generally allow for the effect of foreign price changes by considering the *real exchange rate*, that is that rate which is measured after taking account of price changes in "competitor" countries. In emprical analysis, allowance is generally made for the fact that the domestic currency does not have one single exchange rate, but a number of exchange rates with a number of foreign currencies. The average (generally weighted) external value of the domestic currency with respect to a number of foreign currencies is called the *effective exchange rate*.

Economic conditions in "client" countries affect Malta's export performance, irrespective of prices of exports. Thus for example, during the first half of the eighties, deteriorating economic conditions in England and

Germany were to a considerable extent, responsible for the dismal performance of Maltese exports.

There are of course other factors which influence export trade. For example, exports may increase due to improvements in political relations between countries (as in the case of Maltese ship exports to China), due to improvements in publicity (as in the case of tourism from the U.K.) or due to reductions in import controls in foreign countries. But in general, the relative prices of exports and the state of the economy in "client" countries are regarded as the most important factors affecting export demand.

The Import Content Of Exports and the Multiplier

As noted earlier, Malta exports a variety of goods and services, and different exported items have different import contents. Thus for example, an export consignment of Lm1000 worth of trousers might have an import content of 60%, in which case the amount of domestic value added (the contribution to Malta's GDP) would only be Lm400. On the other hand, an export of Lm1000 consisting of tourist hotel services might have an import content of only 20%, so that the contribution to Malta's GDP would be Lm800.

In general, Malta's exports of merchandise tend to have a relatively high import propensity, since their final value contains a relatively high proportion of imported material. On the other hand, services are characterised by a relatively large labour content and a small material content, so that exports of services are associated with relatively low import propensities.

As will be explained in Chapter 17, an expenditure with a relatively low marginal propensity to import is likely to have a relatively high multiplier effect on aggregate income, output and expenditure. This suggests that a given expenditure on exports of services is likely to have a larger immediate impact on Malta's economy than an equivalent expenditure on merchandise exports.

Malta's Dependence on Exports

In Malta, about 40% of total final expenditure, equivalent to about 70% of GDP, is exported. A relatively large export sector is a common phenomenon in small economies like Malta.

For this reason, Malta is described as an open economy, and its degree of openness is one of the highest in the world. Other countries with a very large export sector are Hong Kong, Ireland, Belgium, the Netherlands and Cyprus. By contrast, the exports sector of the United States and that of India is under 10% of GDP. The relatively large dependence on exports

FIGURE 11.5
EXPORT AS A PERCENTAGE OF TOTAL FINAL EXPENDITURE
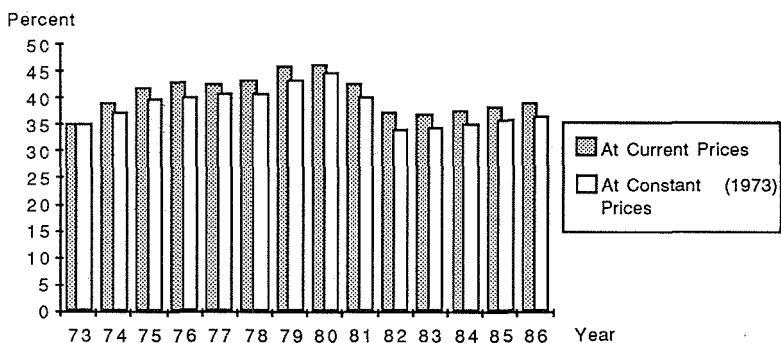
renders the Maltese economy very susceptable to economic conditions abroad.

A feature of Malta s exports of merchandise is that they are mainly manufactured or semi-manufactured products. Malta does not depend on exports of primary commodities, as is the case with many Less Developed Countries. This may be considered as an advantage, since manufactured exports tend to be more stable in terms of supply and final price, and are associated with better terms of trade (relative export/import prices) when compared to primary commodities. These questions are further considered in Chapter 16.

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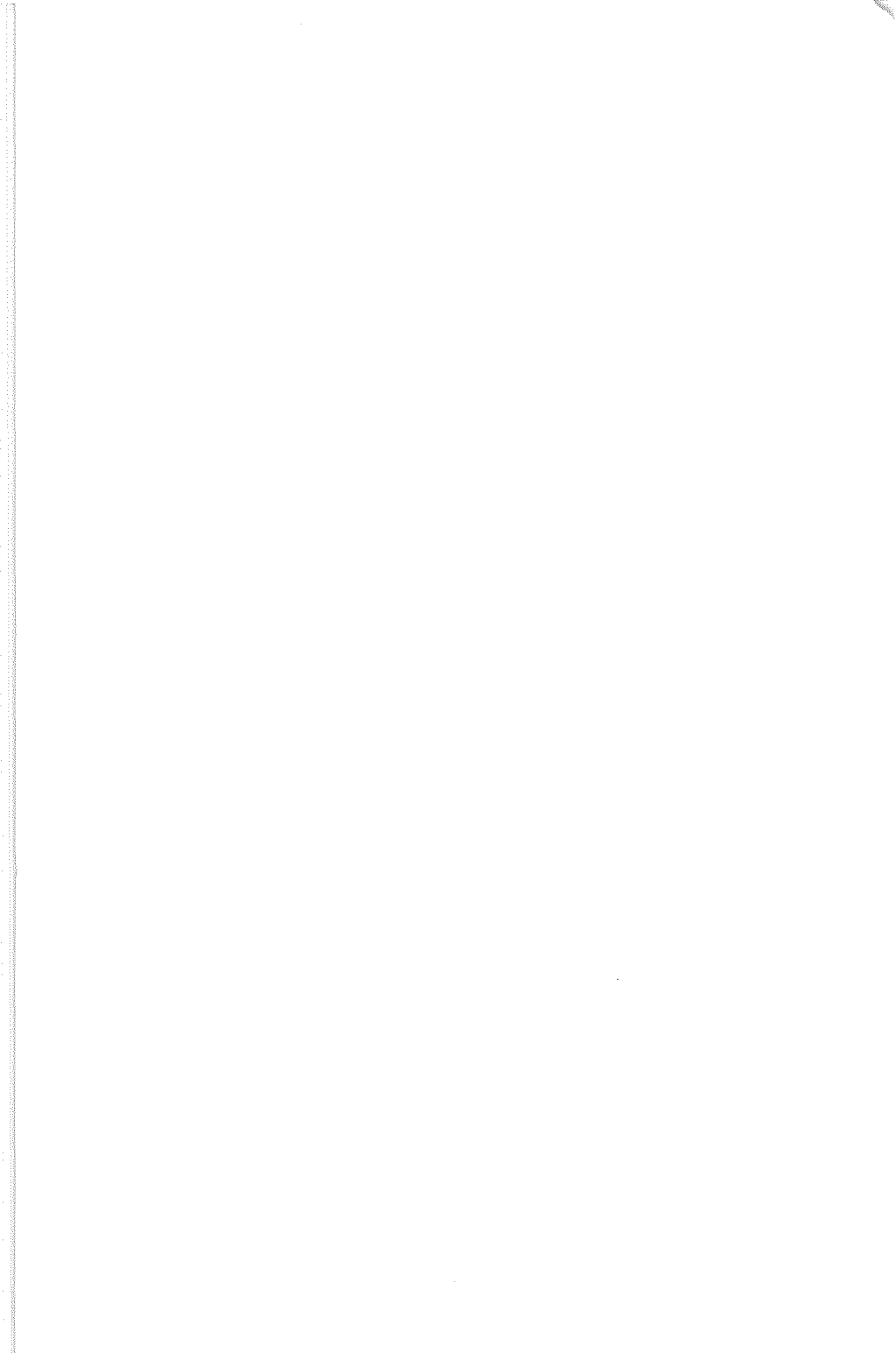
IMPORTS AND
IMPORT CONTROLS

The import bill of Malta is relatively large. In 1986, for example, imports of goods and services were valued at about Lm422 million which was Lm56 million more than the value of exports of goods and services for that year. Imports of merchandise alone amounted to about Lm348 million, which was about Lm153 million higher than exports of merchandise.

Most of Malta's imports are merchandise, and only a small proportion are services. About 55% of merchandise exports are industrial supplies (not including fuels). A more detailed description of merchandise imports is given in the following table.

Table 12.1.
Maltese Merchandise Imports
1986

Imports of Merchandise (1986)	Lm Millions	%
Food and beverages for consumption	31.3	8.9
Durable consumer goods	32.9	9.5
Other consumer goods	14.1	4.1
Primary industrial supplies	14.8	4.3
Semi-finished manufactures for production	165.9	47.7
Finished industrial supplies	11.9	3.4
Capital goods (eg. machinery)	51.3	14.7
Fuel	20.2	5.8
Other	5.6	1.6
Total	**347.8**	**100.0**

Source: Economic Survey 1987, Table VI.2.

FIGURE 12.1
SHARES IN MALTESE MERCHANDISE IMPORTS
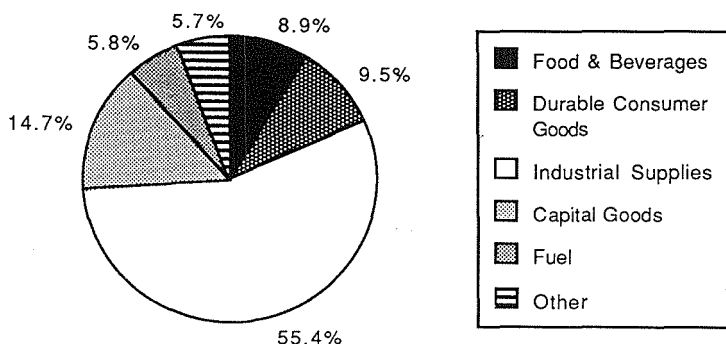
The imports of services are shown in Table 12.2:

Table 12.2.
Maltese Imports of Services (1986)

Type of imported service	Lm Millions	%
Travel related imports:	27.1	24.5
Tourist and business travel abroad	26.6	
Students, government officials, others	0.3	
Other expenduiture overseas	0.2	
Transportation related imports:	55.1	50.0
Freight and insurance on imports	34.8	
Passenger fares	5.5	
Port disbursements	13.2	
Charter hire and miscellaneous	1.6	
Other services:	28.0	25.5
Government transactions	3.0	
Private imported services	25.0	
Total imports of services	**110.2**	**100.0**

Source: National Accounts of the Maltese Islands Table 31-15.
Note: Freight and Insurance enter both tables above, and the total of both tables therefore amounts to more than total imports of goods and services.

It can be seen from Table 12.2 that about 50% of the imports of services consist of transportation related activities. Freight and insurance take a very large proportion of such imports. In fact in the balance of payments freight and insurance are   major foreign exchange outflows.

FIGURE 12.2
SHARES IN MALTESE IMPORTS OF SERVICES (1986)

25.4%   24.6%

Tourism
Transport
Other

50.0%
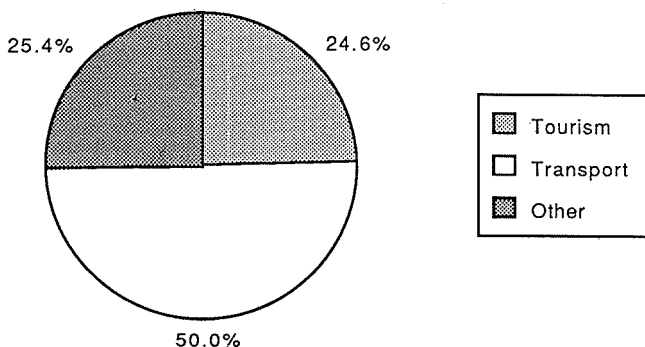
Import Substitution

Imports are required to produce goods and services for consumption, investment and exports. The sum of these expenditures is termed *total final expenditure*. The import-content of the total final expenditure is an important indicator of the extent to which Malta depends on imports. Figure 12.3 shows that between 1973 and 1986 the import content of total final expenditure, measured in real terms, has tended to decrease.

The process of importing a lower proportion of our needs has occurred during the past decades, and has been partly the result of a policy of *import substitution*, and partly the result of the strict import controls that have been imposed by the government. Very often, import substitution and import controls go together, since it often happens that a policy of import substitution cannot succeed without restricting imports.

Import substitution occurs when certain stages of domestic production replace imported production, as was the case for example when a Maltese firm started to produce chocolate bars. Previously chocolate bars were generally imported as finished products.

Governments encourage import substitution because it has various advantages including that the process promotes domestic value added and employment. For example, more workers will be needed if, instead of importing commodities in a finished state, we import them in a partly-finished state and carry out the final stages of production ourselves.

Another advantage is related to the balance of payments, since Malta would economise on foreign exchange when decreasing imports.

Still another advantage is that internal linkages between local firms would increase, and this would reduce the leakage of income from the Maltese income flow to foreign countries. In turn this would increase the

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multiplier effect of a given expenditure. Thus, for example, if local firms producing trousers, bought zips, fabric and thread from other local firms instead of importing them, the multiplier effect of exporting trousers would be greater, since a large proportion of the value of the product would be made in Malta. This would in turn leave a larger proportion of expenditure on exports in the domestic income flow.

Finally, import substitution may help to improve the structure of the economy, since through it certain "desirable" industrial enterprises can be created and protected until they can fend for themselves without protection. This is known as the *infant industry* argument.

However, import substitution may be accompanied by a number of disadvantages. These mostly stem from the fact that the process of import substitution is usually accompanied by import controls and restrictions, which shelter local producers against competition. In turn this may permit inferior quality and inefficient production.

Import substitution therefore is not something undesirable in itself. It is to be discouraged only in so far as its implementation results in the protection of inefficiency.

FIGURE 12.3
IMPORTS AS A PERCENTAGE OF TOTAL FINAL EXPENDITURE
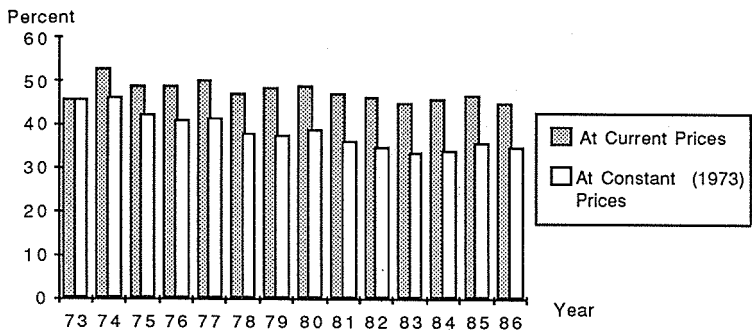
Import Controls

Import restrictions are generally imposed to divert expenditure away from foreign produced goods in favour of locally produced goods, and to protect local industry. There are various types of import controls. These include tariffs, quotas and other non-tariff barriers.

Tariffs are taxes imposed on commodity imports. They may be levied

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to increase government revenue, but may also be used as a tool of policy to discourage imports by making them more expensive. Tariffs have four effects, namely the protection, consumption, trade and revenue effects. The consumption effect is the reduction in domestic demand for the product on which the tariff is imposed. The protection effect is the encouragement to domestic producers that arises when the imported good becomes less competitively priced. The trade effect is the combination of the consumption and protection effects, which result in a lower volume of imports. The revenue effect arises from the fact that the tariff is a tax collected by the government.

In general, tariffs may give rise to misallocation of resources because they permit inefficient domestic production. However they do not completely curtail market forces, since foreign producers could be efficient enough to overcome the price disadvantage associated with a tariff on their products.

Quotas are the most restrictive form of import controls, since they place a quantitative limit on imports. Very often quotas are accompanied by licensing, as is the case in Malta. This method attempts to curtail market forces completely, so that no matter how efficient foreign producers are, their products would not be allowed to enter a given country once the quota of imports is reached.

Quota restrictions may give rise to excess demand for the product in question in the importing country and therefore to an increase in domestic prices. If domestic prices are also controlled, quota restrictions may give rise to black markets.

Sometimes imports are prohibited on grounds of hygene, politics, labelling and other factors. Such non-tariff barriers may be used to discriminate against imported and in favour of locally produced commodities.

In some cases, pressure is exerted on some countries to restrain their exports "voluntarily" so as not to threaten employment and the balance of payments of the importing country. This is another form of import control, and is usually accompanied by some form of threat of punishment by the importing country. For example the importing country may threaten to impose additional import controls, in the absence of "voluntary restraints" on the part of the exporting country.

These trade restrictions may have the advantages described above in connection with import substitution, but as stated, they are also associated with the protection of inefficiency. Besides this, such restrictions give rise to a reduction in consumer choice and promotion of attitudes which are not conducive to innovation. Moreover, evidence suggests that countries adopting inward looking policies, based on import controls, tend to experience relatively slower rates of economic growth, compared to countries that

emphasise export orientation.

Import Controls in Malta

Until recently, practically every commodity entering Malta, was subject to import licencing and quotas. Import duties were also imposed on many commodities.These controls have at times given rise to shortage of supplies of certain commodities, as was the case, for example, with colour televisions, and inferior quality products, as was the case for example, with fruit. With the recent change in government there has been a tendency towards trade liberalisation, but as this book goes to the press, import controls in Malta are still very extensive.

Such controls have however enabled Malta to save on foreign exchange. For example in 1984, had Malta imported the same proportion of total expenditure as it had done in 1975, the import bill would have been Lm25 million higher than it actually was. This could have meant a balance of payments deficit and a net reduction in our official reserves. Moreover certain controls, such as for example those imposed on televisions and confectionery products have generated employment in Malta.

The question as to whether import controls should be dismantled therefore is a matter of debate, especially at present, when Malta is considering joining the European Community. This issue will be discussed in Chapter 15.

The Gains from Trade

Economic theory predicts that free trade permits countries to enjoy gains from trade resulting from international specialisation, and that import restrictions tend to reduce these gains from trade. This is explained in terms of the *law of comparative advantage*, which states that each nation should specialise in the production of those commodities which it can produce relatively cheaper than other commodities. It should then export the amount not required for domestic consumption, and import commodities in which the nation has a comparative disadvantage.

By analogy, in the case of an individual worker, a tailor would specialise in producing items of clothing and use his earnings to buy food from the farmer. Likewise, the farmer would specialise in food production, and buy his clothes from the tailor. In this case, in a given period of time, both workers would gain by specialising in the trade in which their respective opportunity cost in production is less than the opportunity cost in exchange. One implication of this agreement is that countries should not impose trade barriers which work against the law of comparative advantage.

However, in the real world, countries may be faced with no choice but to

impose trade barriers. For example, certain developing countries enjoy a comparative advantage in the production of primary commodities, but they do not wish to remain tied to this form of production because it is associated with major disadvantages, such as price fluctuations and deteriorating terms of trade. So they may find it advantageous to control imports with the aim of developing their own manufacturing sector.

Trade barriers may also be justified on the grounds that they protect domestic producers against dumping. Dumping means selling to a foreign market at a price below that charged domestically. Sometimes a country indulges in dumping to penetrate a foreign market with the aim of driving foreign producers out of business, after which prices are increased. This is known as *predatory dumping*. In some cases, countries indulge in dumping in order to dispose of unplanned surpluses without the need to reduce domestic prices.

There are also non-economic arguments in favour of import controls, such as for example national defence and prestige.

In all cases, one has to compare the gains from trade barriers with the gains from international specialisation in order to judge whether trade barriers are justified.

Trade Barriers and Economic Integration

Economic integration is the formation of a system of economic cooperation between different nations, such as a *free trade area* or a *customs union*. In a free trade area, member countries remove all tariffs on trade between themselves, but each member retains the right to charge any tariff it wishes to on imports from non-member countries. In a customs union, member countries remove all tariffs on each other's imports, but charge a *common external tariff* on imports of non-members. The European Community is a customs union, which is attempting to become a fully fledged *economic union* by harmonizing the monetary and fiscal institutional set-up of the member countries.

In general, the removal of trade barriers, and the maintenance of a common external tariff, give rise to *trade creation* and *trade diversion* effects. Trade creation arises when the removal of internal tariffs brings about the replacement of domestic inefficient production by more efficient production from a member country. This should theoretically increase welfare. Trade diversion arises when the imposition of a common external tariff allows domestic inefficient producers to compete with more efficient producers from a non-member country. This should theoratically decrease welfare.

Economic integration has a number of dynamic effects on the economy

of member countries. These include (a) a competitive environment which tends to give rise to improved efficiency (b) a large market, which brings about benefits associated with economies of scale and (c) an environment conducive to investment from non-member countries, in their attempt to overcome the common external tariff. The most important disadvantages are loss of sovereignity on the part of each member country in domestic matters and inability to protect domestic producers.

The arguments just presented are relevent in the discussion as to whether or not Malta stands to benefit from full EEC membership. This question will be discussed in some detail in Chapter15.

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13

THE BALANCE OF PAYMENTS AND OFFICIAL EXTERNAL RESERVES

The balance of payments is a statement of the economic transactions of a country with the rest of the world during a given period, normally a year. It may also be regarded as a report of the outflows and inflows of foreign exchange from and into a country, during a given period. It is usually presented as three accounts namely the current account, the capital account and the official financing account.

The current account of the balance of payments covers (a) exports and imports of goods and services (b) net investment income from abroad and (c) transfers such as gifts made by foreigners to the Maltese government and to private residents in Malta, net of gifts made by the Maltese government or private residents to foreigners.

The capital account of the balance of payments covers the changes in foreign assets. It shows the inflows and outflows of funds for (a) direct investment, such as building a factory (b) the purchase or sale of securities, such as company shares, (c) net deposits by domestic banks and financial institutions abroad and (d) net government borrowing from abroad.

FIGURE 13.1
CURRENT ACCOUNT INFLOWS OF FOREIGN EXCHANGE
(AVERAGES 1980 - 1986)

7.3%
6.0%
12.6%
11.2%
19.4%
43.5%

☐ Merchandise Exports
▨ Tourism
▨ Transport
▨ Investment Income
■ Other Services
▤ Transfers
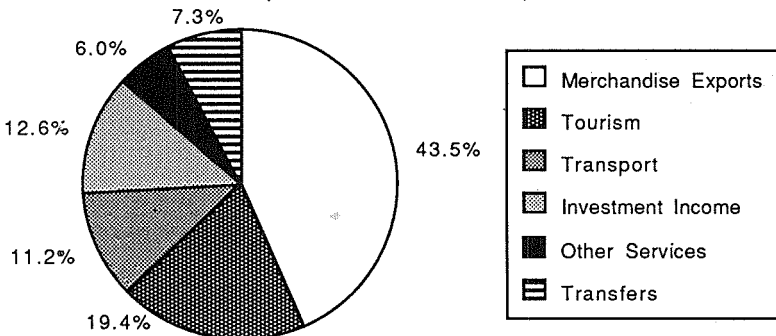
FIGURE 13.2
CURRENT ACCOUNT OUTFLOWS OF FOREIGN EXCHANGE
(AVERAGES 1980 - 1986)

Legend:
- ☐ Merchandise Imports
- ▦ Tourism
- ▦ Transport
- ■ Investment Income
- ▦ Other Services & Transfers

Percentages: 5.9%, 3.4%, 12.8%, 5.4%, 72.5%
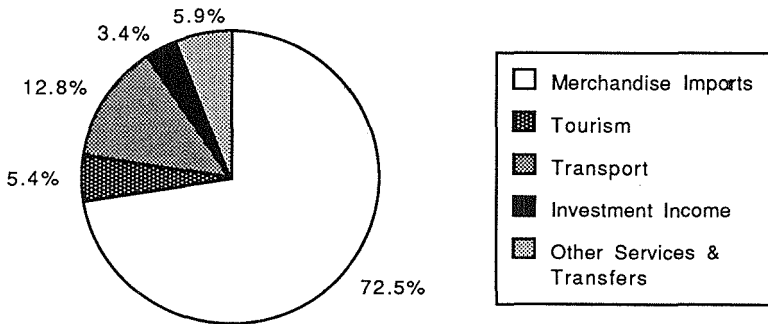
The official financing account measures changes in the foreign exchange reserves of the monetary authorities. These changes are transactions carried out by the monetary authorities to make up for deficits or surpluses in foreign exchange flows in the current and capital accounts considered together. Thus official financing is an accomodating account because it is carried out to balance international transactions. In this sense, the balance of payments always balances, since any deficit or surplus in the current and capital account taken together are settled by changes in the official external reserves.

The Maltese Balance of Payments

Table 13.1 gives the main inflows and outflows of foreign exchange in the Maltese balance of payments for 1986, together with the negative or positive balances associated with these flows.

There are some points of interest to be made from Table 13.1. Firstly, the balance of trade i.e. the difference between imports and exports of merchandise was negative. This has always been the case in Malta since 1954, the first year of publication of the Maltese National Accounts. The balance between imports and exports of all services taken together was positive, the only unfavourable balance being that with respect to freight and insurance. When taking goods and services together, however, the overall balance, called the *resource gap*, was negative due to the large deficit in merchandise trade. Malta has had a deficit in its resource balance since 1954.

Investment income from abroad covers interest, dividends and other earnings which Maltese residents and institutions make on their foreign investments or which arises from the ownership of foreign assets. The

FIGURE 13.3
CURRENT ACCOUNT BALANCES SINCE 1960
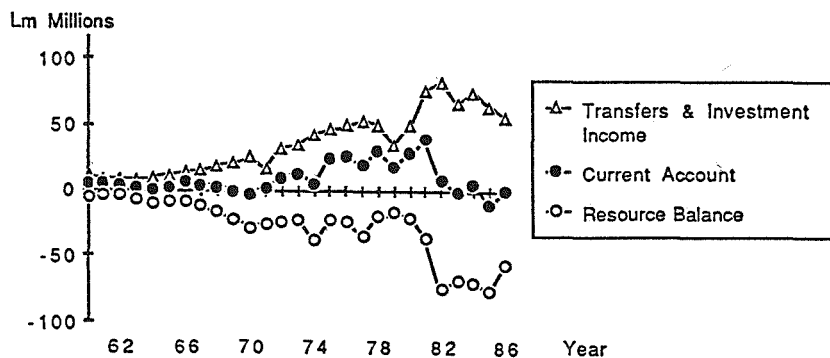
Table 13.1.
The Maltese Balance of Payments for 1986
Lm Millions

Current A/C	(Credit) Inflow	(Debit) Outflow	Balance
Merchandise Exports and Imports	205.0	308.6	-103.6
Gold (Non Monetary)		2.9	- 2.9
Insurance/Freight on Merchandise	7.0	34.8	- 27.8
Transportation	42.8	20.4	+ 22.4
Travel	79.4	27.1	+ 52.3
Investment Income	45.3	17.2	+ 28.1
Other Private Services	26.3	25.0	+ 1.3
Other Government Services	5.2	3.0	+ 2.2
Private Transfers	29.2	2.3	+ 26.9
Government Transfers	1.4	0.2	+ 1.2
Current Account Total	**441.6**	**441.5**	**+ 0.1**
Capital A/C			
Net Direct Investment	8.5		+ 8.5
Private Financial Investment	1.1	5.2	- 4.1
Bank/Financial Institutions Flows	27.8	35.6	- 7.8
Government Loans	2.3	6.0	- 3.7
Capital Account Total	**39.7**	**46.8**	**- 7.1**
Net Errors and Ommissions	5.2		+ 5.2
Decrease in Official Reserves	**1.8**		**+ 1.8**

Source: National Accounts of the Maltese Islands

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outflows of investment income arises from similar earnings made by non-residents on their investment in Malta. Transfers include flows of foreign exchange for which nothing direct is received in return.

Table 13.1 shows that the net inflows from investment income and transfers just cover the deficit on the resource gap, and the balance on current account shows a surplus of Lm0.1 million. Malta has enjoyed a surplus on current account for most years since 1954. The years with a current account deficit were 1964, 1969, 1970, and 1983 and 1985.

In 1986, Malta had additional foreign exchange inflows on capital account from direct investment. Direct investment involves some form of ownership of domestic enterprise by non-residents. Financial outflows, which include bank deposits, were larger than inflows. This was true also with regard to government loans, where the outflows cover repayments. There was an overall deficit on capital account in 1986. This was not, however, always the case with the Maltese balance of payments, since in many years since 1954, the net inflows on capital account were positive.

Net errors and ommissions allow for statistical discrepancies arising from mistakes in recording, or from non-recording of foreign exchange inflows and outflows due to oversights or to secret capital transfers.

In 1986, the deficit on the current and capital accounts taken together was Lm1.8 million and this shows that for that year, the amount of foreign exchange earned or obtained in some other way, was not enough to cover the amount of foreign exchange required. Again this is not typical in the Maltese balance of payments. In most years since 1954, foreign exchange inflows exceeded outflows, and a surplus was recorded.

A shortfall of foreign exchange is financed by the Central Bank of Malta by drawing on its external reserves. Thus in 1986, the reduction in official external reserves corresponded to the deficit of Lm1.8 million. It is shown as a credit entry, because it may be regarded as an official capital inflow. Such an inflow represents the amount by which official foreign investment is reduced by the monetary authorities to finance the stated deficit.

When a surplus was recorded, as was generally the case in the past, official external reserves increased by the amount of the surplus. This increase is recorded as a debit, because it may be regarded as an official capital outflow. The financing of balance of payments deficits and the accumulation of external reserves resulting from balance of payments surpluses is referred to as official financing.

Since the balance of payments is constructed on the basis of accounting procedures, its debit and credit sides (after allowing for official financing) must balance. As already noted, that is why the statement that the balance of payments must always balance is correct. However, individual accounts do not necessarily balance, as shown in Table 13.1.

FIGURE 13.4
MALTA'S OFFICIAL EXTERNAL RESERVES

Lm Millions
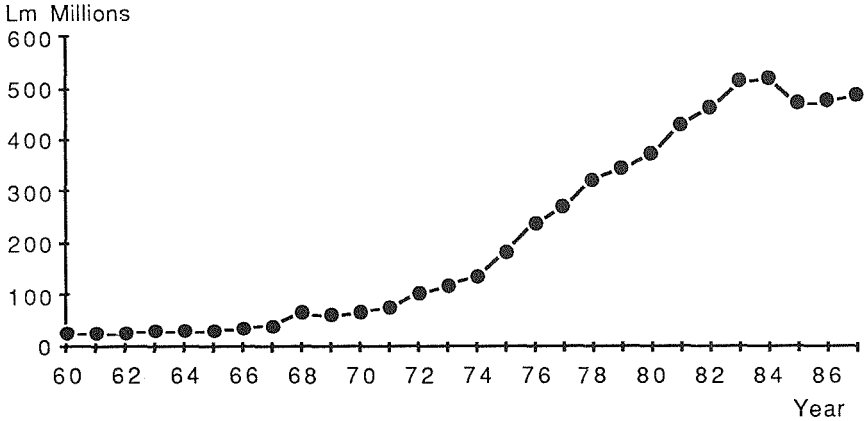
The different entries in the balance of payments convey different information. For example, an economist may be interested in examining whether Malta is able to earn enough foreign exchange from trade to finance its import bill. This information is conveyed by the entries relating to the balance of trade and the resource balance. An examination of the Maltese balance of payments would indicate that although in most years Malta enjoyed an overall surplus of foreign exchange in its current and capital account taken together, yet this surplus was never made from trade alone. In some years, income from foreign investment was enough to compensate for the resource deficit. In other years, grants or loans from foreign governments were required to compensate for such shortfalls.

A considerable proportion of foreign exchange inflows in the Maltese balance of payments are generated by the private sector. For example, merchandise export, which is an important source of foreign exchange earnings, is mostly carried out by private firms selling clothing, textiles, components of electrical machinery and other goods and services. The inflows which originate *directly* from the government include those resulting from political agreements and from loans for development.

Dealings in foreign exchange in Malta are regulated by the Foreign Exchange Control Act of 1972, which stipulates that only authorised dealers can buy or sell foreign exchange. Practically all foreign exchange flows pass through the banking system in Malta, and the commercial banks are obliged to sell their surpluses of foreign exchange to the Central Bank, if these exceed a certain limit set by the Central Bank itself. In other words a very large proportion of foreign exchange inflows are transferred to the

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monetary authorities.

Official External Reserves

In general, a country's official reserves refer to its gold, convertible curren-
cies and other holdings which can be used to finance its obligations to other
countries. At the end of 1986, the Maltese external official reserves
amounted to Lm460.5 million, of which Lm61.5 million were gold and other
precious metals, Lm34.1 million were IMF Gold Tranche Position and
SDR's, and Lm364.9 were convertible currencies such as Deutsche marks,
Japanese yen, US dollars etc.

In any one year, Malta receives amounts of foreign exchange as a result
of international business transactions and political agreements, as shown
in Table 13.1. As already stated, during the past years, the balance of
payments in Malta generally showed surpluses in the current and capital
accounts, and this permitted the monetary authorities to increase their
holdings of foreign reserves. The amount of Lm460.5 million at the end of
1986 represents the accumulated balances of foreign reserves held by the
monetary authorities over time.

Foreign exchange reserves can increase dramatically in any one year if
firms refrain from importing new plant and machinery, if households cease
to buy cookers and fridges, or if travelling abroad is banned. This
consideration is of utmost importance since it exposes the fallacy that the
rate of accumulation of external official reserves is necessarily an indicator
of economic well-being. In fact, by putting the accumulation of reserves as
a top priority a nation may bring about a deterioration of the quality of life,
and may neglect the need to expand and update capital stock.

Viewed in this way, the accumulation of official external reserves would
reflect the claims Malta has on other countries, which could have been, but
which were not, translated into imports of televisions, chocolate, machin-
ery, and other consumer and producer goods and services.

Thus the question arises as to what is the right amount of foreign
exchange reserves to hold. This is a very difficult question to answer. The
Central Bank of Malta Act stipulates that the official external reserves
should amount to at least 60% of the Bank's notes and coins in circulation
and the demand deposits with the Central Bank. In practice the amount
held by the Central Bank is well in excess of this stipulation. Moreover, the
amount of Malta's external reserves, measured in months of imports, is
generally much higher than the amount held by other countries as shown
in Figure 13.5. UNCTAD's handbook of International Trade and Develop-
ment statistics, gives a world comparison of external reserves in monthly
imports and Malta takes one of the top places in this list.

FIGURE 13.5
OFFICIAL EXTERNAL RESERVES MEASURED IN MONTHLY IMPORTS
MALTA AND SELECTED COUNTRIES (1985)

Months

```
16
14 ┤ ██
12 ┤ ██
10 ┤ ██
 8 ┤ ██
 6 ┤ ██                                          ██
 4 ┤ ██                      ██      ██           ██    ██
 2 ┤ ██    ██   ██    ██     ██      ██    ██     ██    ██   ██
 0 └────────────────────────────────────────────────────────────
    Malta  U.K.  U.S.A. Belgium Cyprus France Ireland Italy Spain Denmark
```
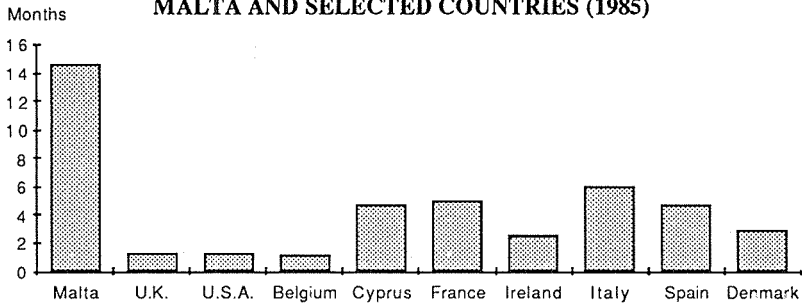
Why Hold Official External Reserves

The holding of external reserves by the monetary authorities can be justified on various grounds. These include that a country needs to back its domestic currency by precious metals and convertible currencies to render it easily acceptable, and that the holdings of reserves allows a country to make up for foreign exchange shortfalls during any one year. Another argument is that the depositing of these reserves earns investment income from abroad, and the country in question therefore improves its balance of payments position by this inflow of foreign exchange.

In Malta, two other reasons for holding excessive external reserves have been proposed, namely that (i) Malta has reached the limit of what it can absorb by way of domestic investment, and that investing funds abroad to earn income is therefore justified, and that (ii) the volume of accumulated external reserves is some form of indicator of the strength of the Maltese economy.

These two arguments have dangerous implications. If it is true that Malta has reached its maximum absorptive capacity then it follows that there is no further scope for growth and development, and that, for instance, attempts to attract direct foreign investment into Malta, would not lead to anything more than a waste of time and money. In reality, Malta has a good growth potential. In 1964, the Stopler committee had suggested that the Maltese economy was not able to grow any further then. Since that time the Maltese Gross Domestic Product has grown by five times as much in real terms.

The argument that the amount of accumulated official foreign exchange reserves is an indicator of well-being is as fallacious as the argument that the amount of savings of a household are a measure of its standard of living.

It should be kept in mind that one reason for the substantial increase in

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Malta's official external reserves since 1972 was the exchange control legislation, which restricted the freedom of private individuals and institutions to hold foreign exchange. The control excercised by the government in this respect was, and still is, to a large extent resulting in a change of ownership from private hands in to those of the monetary authorities who in turn invest these funds abroad.

Conclusion

Many important conclusions may be drawn from this chapter. Firstly, the commonly held opinion that Malta faces chronic foreign exchange deficit is not true. In most years the inflow of foreign exchange on the current and capital accounts have exceeded the outflows, and this permitted the monetary authorities to accumulate a large amount of foreign exchange reserves.

It was argued that there are benefits associated with the holding of official external reserves. What mostly probably prompts the Maltese authorities to hold excessive reserves is the income earned from depositing these reserves in foreign banks.

It was asserted that the principal disadvantage associated with holding excessive foreign exchange reserves is that these could be alternatively used to expand and update Malta's productive capital stock and to improve the quality of life in Malta.

Further Reading:
Briguglio L., (1988), "The Impact of a Devaluation on the Maltese Trade Balance with Special Reference to the Price and Income Reversal Effects", forthcoming in *Applied Economics,,* Chapman and Hall, UK.
Briguglio L., (1988), "The Effects of Changes in the Maltese Lira on Output, Employment and the Balance of Payments", in *Issues II* , New Economics Society, Malta.
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Central Bank of Malta (1975), "Exchange Rate Policy", *Quarterly Review,* Vol. 8, No. 4.
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Main Statistical Sources:
Economic Survey, (Annual), Office of the Prime Minister, Malta.
International Financial Statistics, I.M.F., Washington.
National Accounts of the Maltese Islands, Central Office of Statistics, Malta.
National Accounts of the Maltese Islands, Central Office of Statistics.
Trade Statistics, Central Office of Statistics, Malta.
Relevant Legislation:
The Exchange Control Act, 1972.

14

THE EXCHANGE RATE OF
THE MALTESE LIRA

Since 1972, the external value of the Maltese lira (previously known as the Malta pound) has been established on the basis of a weighted basket-of-currencies formula. Before that year, the Maltese currency was either sterling or a Malta pound with a value at par with sterling. When the Central Bank Act was passed in 1967, the sterling-Malta pound parity was confirmed in one of the articles of this act. This exchange rate, expressed in terms of gold, was accepted by the International Monetary Fund (I.M.F.).

One important function of the I.M.F. was to see that nations behaved according to an agreed-upon code of rules regarding international payments. As a member of the I.M.F., Malta was bound to fix the value of its currency in terms of gold or the US dollar, and to keep its exchange rate within 1% of this value. This par value of the Maltese currency could only be changed when the I.M.F. was satisfied that there was a large and chronic disequilibrium (deficit of surplus) in the balance of payments. Temporary balance of payments deficits were to be financed out of the nation's reserves or by borrowing from the I.M.F. This system was known as *the Bretton Woods System*.

The Bretton Woods System depended heavily on the stability of the value of the US dollar in terms of gold. Following large and persistent balance of payments deficits in the United States, the US monetary authorities were forced to devalue the dollar in 1971. This gave rise to a loss of confidence in the US currency and as a result the Bretton Woods System collapsed.

Consequently, in August 1971, the Maltese government amended the Central Bank Act so as to release the Central Bank from its obligation to maintain the value of the Malta pound according to the declared I.M.F. parity. Soon after, the Maltese currency was assigned a value of 5% over that of sterling. At that time sterling was also released from its I.M.F. parity and was allowed to float against other currencies, so that the Malta pound floated with it.

FIGURE 14.1
THE MALTESE LIRA WEIGHTS AS AT NOVEMBER 26, 1987
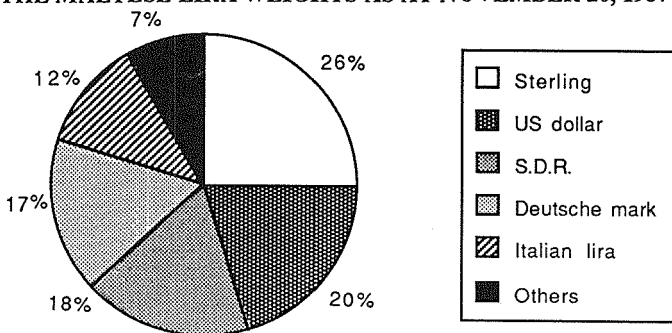
The percentage weights shown in the diagram are based on the portions as described in a press release issued by the Central Bank of Malta in November 1987. The stated objective of the formula revision was to strike a balance between domestic price stability and export competitiveness. For the first time, the Special Drawing Rights (SDRs) were introduced into the formula.

As a result of the continued uncertainty in the foreign exchange markets, the Maltese authorities severed the Maltese currency's ties with sterling at the end of 1971, and the exchange rate of the Maltese lira was quoted in terms of US dollars. In July 1972, a weighted formula for establishing the external value of the Malta pound was adopted. In this way, the exchange rate of the Maltese currency was linked to those of Malta's trading partners, including Germany, Belgium, France, Britain and Italy. Malta was one of the first countries to introduce a "basket of currencies" method to establish the exchange rate of the domestic currency.

The weights assigned to different foreign currencies depend on what are known as portions, and these determine the final exchange rate of the Maltese lira. Thus, to take a hypothetical example, if sterling is assigned a hundred percent weight, then any change in the sterling-dollar exchange rate would be totally reflected in the value of the Maltese lira. If on the other hand on a given date, sterling is assigned 25% weight, the Italian lira is assigned 25% weight and the Deutsche mark is assigned 50% weight, than any changes in the exchange rates of these currencies with respect to the US dollar, would be reflected in the value the Maltese lira in accordance with the mentioned percentage weights.

The portions, and as a result, the weights incorporated in the Maltese lira formula have been changed a number of times since 1972. In many cases, these changes were effected so as not to let the Maltese lira lose its value against the US dollar. In practice this was brought about by

increasing the weights of strong currencies in the formula and decreasing those of weak currencies, so that the end result was a strengthening of the Maltese lira against the US dollar.

Types of Exchange Rates Systems

Various systems are used to establish the exchange rate of a currency. One is *the flexible exchange rate* system which relies on the operation of market forces to bring about a reduction of the external value of the domestic currency (depreciation) when there is a deficit in the nation's balance of payments. Theoretically, this adjustment would come about because a deficit in the balance of payments of country X implies excess supply of the domestic currency in terms of foreign currencies.

This would cause a depreciation of the domestic currency which, theoretically, would improve the competitiveness of country X's products and give rise to an improvement in the balance of payments.

In the case of a balance of payments surplus, the flexible exchange rate system would theoretically give rise to excess demand for the domestic currency and through the workings of market forces this would result in an appreciation of the domestic currency,reducing export competitiveness and therefore correcting the balance of payments surplus.

Since the collapse of the Bretton Woods system, the flexible exchange rate system has been adhered to by a number of advanced industrialised countries. The major advantage of this sytem is that it may act automatically to adjust balance of payments disequilibrium without the need to adjust internal prices. A disadvantage associated with this system is that it tends to bring about large fluctuations in exchange rates.

Another arrangement is *the fixed exchange rate* system, where the domestic currency is assigned a fixed value in terms of gold or some other indicator of value. For example, the *Gold Standard,* adhered to by a number of countries before the first world war, required that the value of the monetary unit be fixed in terms of a specific quantity of gold. Under this system the monetary authorities were obliged to exchange paper notes for gold and vice versa at the official fixed price. Moreover, the authorities had to allow gold to be exported and imported freely. Balance of payments surpluses and deficits were settled in gold.

The Bretton Woods system was also basically a fixed exchange rate arrangement, because the member nations' currencies were pegged to the US dollar and indirectly to gold. For this reason, it was known as the *gold exchange standard.* Exchange rates were to be kept stable within a narrow band (plus or minus 1 percent) around the officially declared par. Countries were however allowed to change the exchange rates of their currencies in

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the event of a fundamental disequilibrium. Because of this, the Bretton Woods System was also known as an *adjustable peg* system.

Under a truly fixed exchange rate regime, as implied by the name, balance of payment adjustments cannot be effected by depreciations or appreciations of the exchange rates but by changes in capital inflows, domestic output or domestic prices.

Thus for example, in the case of a balance of payments deficit, the reduction of gold (in the case of the gold standard) or reserves of convertable currencies (in the case of gold exchange standard) to finance the deficit would theoretically result in a reduction in money supply, which in turn would push interest rates upwards, and attract foreign capital, thereby partially or totally correcting the deficit. Moreover, a fall in money supply would theoretically give rise to a fall of domestic prices or to a slower rise in domestic prices compared to those in surplus nations, thereby improving export competitivness in the deficit countries.

In the case of a surplus, the adjustment mechanism under a fixed exchange rate system could be brought about by an increase in money supply, which would theoretically push up prices and push down interest rates.

The major disadvantage associated with a fixed exchange rate system is that the adjustment mechanism may be too painful, since in the case of a deficit, the deflationery process that is implied may give rise to unemployment, whereas in the case of a surplus, the inflationery processses involved would bring about domestic instability. The major advantage of a fixed exchange rate system is that it fosters stability in the foreign exchange market.

Besides the fixed and flexible exchange rate systems there are a number of systems which combine some characteristics of both. These include:

(i) *the pegged exchange rate system* which can be divided under three broad headings namely (a) *single currency peg* where the value of the domestic currency is pegged to another single foreign currency such as the US dollar or the French franc. (b) *composite currency peg* whereby the value of the domestic currency is pegged to a basket of currencies rather than to a single currency. This system is adopted in Malta and (c) the *crawling peg* system, where the domestic currency is allowed to change with market forces by small amounts and under the supervision of the Central Bank.

A version of pegged exchange rate system just described is the *flexible peg* system by which the domestic currency is linked to another currency (say the US dollar) but is allowed to appreciate or depreciate from the chosen rate by pre-established percentage margins.

(ii) *non-pegged exchange rate systems* which may be classified under two headings namely (a)*independent float,* where the exchange rate is essentially market determined and (b) *managed float* also known as *dirty float* where the domestic currency is allowed to float with market forces, but the Central Bank intervenes from time to time to prevent what the monetary authorities consider to be excessive depreciations or appreciations.

Real and Nominal Exchange Rates *

The exchange rate of the Maltese lira, may be measured in *nominal terms* and in *real terms*. When measured in nominal terms, the rate shows the amount of units of a foreign currency that can be bought by a unit of the domestic currency, or vice versa. When measured in real terms, the exchange rate not only takes into account the value of the domestic currency in terms of a foreign currency, but also the ratio of domestic prices to foreign prices.

When considering exchange rates, it should be remembered that the domestic currency does not have one single external value, but different ones with respect to different foreign currencies. It is possible, for example, that the Maltese lira appreciates against the currency of country X, and depreciates against the currency of country Y simultaneously.

FIGURE 14.2
NOMINAL EXCHANGE RATES OF THE MALTESE LIRA
AGAINST SELECTED CURRENCIES (1972 = 100)
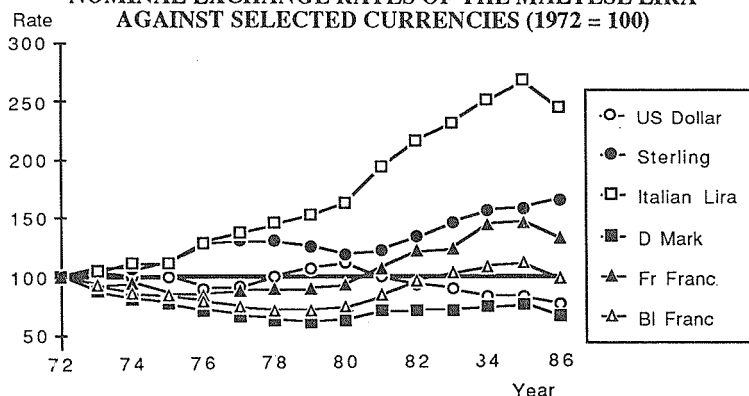
The nominal exchange rates were measured as the average annual value of the Maltese lira in terms of foreign currencies. The diagram therefore conceals the monthly fluctuations that have occurred in the external value of the Maltese lira. In general the Maltese lira has tended to loose its value against the Deutshe mark and the US dollar and to increase its value with respect to the Italian lira and the pound sterling.

* This and the next section follow closely the original work conducted by E.Scicluna (1984) (1985).

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To take account of this, the exchange rate of the Maltese lira may be measured as a weighted average of the nominal or real exchange rates against a number of foreign currencies. This weighted index is referred to as the *Effective Exchange Rate* (EER). The choice of currencies represented in the weighted average depends on the purpose for which the effective exchange rate is to be utilised. For example, if it is needed to measure export competitiveness, than the weighted average should include currencies of countries that compete with Malta in the export market.

Changes in the External Value of the Maltese Lira

Figure 14.2. shows the nominal exchange rate of the Maltese lira against five selected currencies. What emerges from this diagram is that between 1972 and 1986 the Maltese lira has tended to appreciate against sterling and the Italian lira and has tended to depreciate against the Deutche mark and the US dollar.

Figure 14.3 shows two indices of Malta's export competitiveness. The first is the normal Effective Exchange Rate (EER), which is a weighted average of the exchange rates of the Maltese lira against the currencies of a number of "client" countries, namely the United Kingdom, W. Germany Italy, Belgium, the Netherlands, France, Belgium, Libya and the United States. The weights were assigned in accordance with the average volume of exports towards these countries during the 1972-1986 period. The second index is the Real Effective Exchange Rate (REER), which is the Effective Exchange Rate of the Maltese lira adjusted for the difference between Malta's and the "client" countries' inflation rates, with weights assigned as before. The relative inflation rate index, also shown in figure 14.3, is the Effective Inflation Rate (EIR), which is the ratio of the Maltese retail price index to the weighted average of retail prices in the "client" countries, with the same base year.

It can be seen from Figure 14.3 that the nominal effective external value of the Maltese lira has tended to increase between 1974 and 1986. However, inflation rates in Malta's "client" countries have tended to be higher than that of Malta, and this has resulted in a decrease in Malta's effective inflation rate up to 1979. After that year, Malta's relative inflation rate increased, reaching a peak in 1981. It decreased again between 1982 and 1985. The real effective external value of the Maltese lira, which is computed by multiplying the nominal exchange rate by the relative inflation index, has tended to decrease up to 1979 and to rise after that year until 1982, after which year it tended to decrease again.

As stated, the real effective exchange rate may be considered as an index of Malta's export competitiveness. It should be noted, however, that as

FIGURE 14.3
EFFECTIVE EXCHANGE RATES, EFFECTIVE INFLATION RATES
AND REAL EFFECTIVE EXCHANGE RATES AGAINST
"CLIENT" COUNTRIES (1972 = 100)
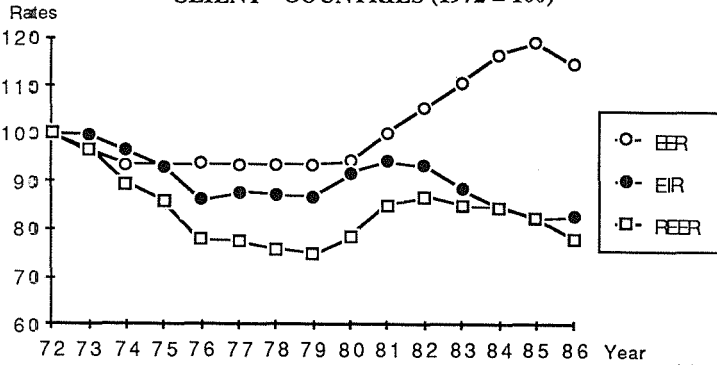
Source: IMF Financial Statistics

measured in Figure 14.3, this index considers export competitiveness against Malta's "client" countries. An index of export competitiveness against "competitor" countries could be constructed by taking the weighted average of the real exchange rates of the Maltese lira against countries that compete with Malta in their trade with the EEC. Figure 14.4 shows the nominal and real effective exchange rates of the Maltese lira and an index of relative prices against two of Malta's most important "competitor" countries, namely Greece and Spain.

FIGURE 14.4
EFFECTIVE EXCHANGE RATES, EFFECTIVE INFLATION RATES
AND REAL EFFECTIVE EXCHANGE RATES AGAINST
"COMPETITIOR" COUNTRIES (1972 = 100)

Source: IMF Financial Statistics

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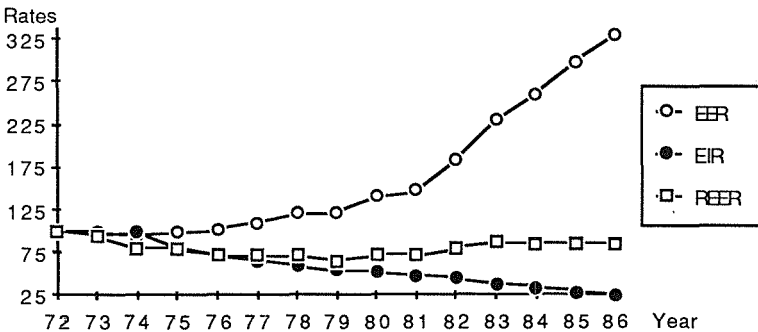
The pattern of change described in Figure 14.3 broadly applies to tha shown in Figure 14.4 referring to Malta's "competitor" countries. The mos important difference is that Malta's loss in export competitiveness between 1979 and 1983 seems to have been more pronounced with respect to "competitor" countries, than with respect to "client" countries.

One conclusion that emerges from Figure 14.3 and 14.4 is that the competitiveness of Maltese exports as measured by the real effective exchange rate, improved up to 1979, despite the fact that the external value of the Malta pound tended to appreciate. The reason for this is that domestic inflation rates tended to be lower than those of other countries. Between 1979 and 1983 Malta's competitive edge was lost mostly due to the fact that the appreciation of the Maltese currency was not offset by lower inflation rates in Malta. After 1983, the relatively low inflation rates in Malta have to an extent offset the adverse effects of an appreciating Maltese lira.

Exchange Rates and the Balance of Trade

The anaylsis of exchange rate movements is very important especially for a country with a relatively large foreign sector, like Malta. Changes in foreign exchange rates are likely to influence exports and imports, and this not only affects the balance of payments but also domestic output and employment. Thus for example, if as a result of devaluation of the Maltese lira, export competitiveness improves, the end result could be an increase

FIGURE 14.5
THE EFFECT OF A DEVALUATION OF THE MALTESE LIRA
ON THE BALANCE OF TRADE ON GOODS AND SERVICES
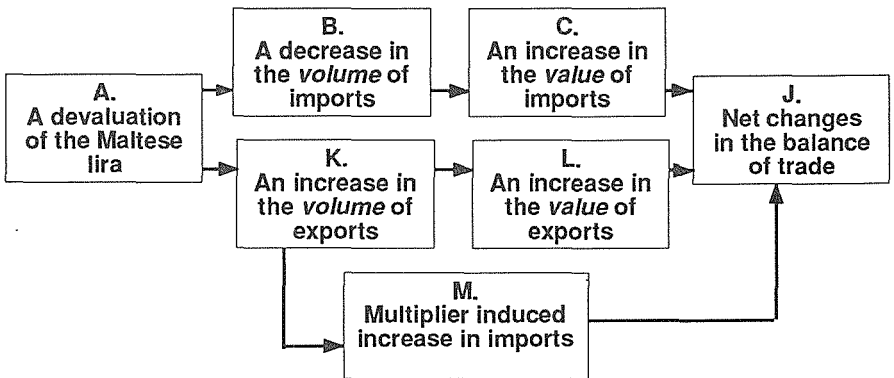
in employment to meet the increase in demand for Malta's goods and services. Moreover, a devaluation would render imports more expensive and this could bring about a reduction in imports and possibly a tendency towards import substitution. On the negative side, a devaluation would push up the prices of imported goods, thereby adversely affecting competitiveness

A diagram explaining the effect of a change in the exchange rate of the Maltese lira on exports has already been presented in Chapter 11. Figure 14.5 explains the effect of a change in the value of the exchange rate on the Maltese balance of trade.

The effects of a devaluation on the volume of trade may be divided into three, namely (i) an increase in the volume of exports arising from a decrease in export prices in foreign currency, shown in the movement from A to K in Figure 14.5, (ii) a decrease in the volume of imports arising from an increase in import prices in domestic currency, shown in the movement from A to B and (iii) an increase in imports induced by the increase in exports, shown in the movement from K to M.

These changes in volume have to be translated into money in order to assess the impact on the balance of trade, since this balance is normally measured in value terms. The final effect normally depends on the magnitude of import and export price elasticities, and on the marginal propensity to import. In the case of Malta, a devaluation is likely to increase the volume and value of exports as shown in the movement from K to L since the export price elasticity is probably higher than unity. It is likely to increase the volume but decrease the value of imports, shown in the movement from B to C, since the import price elasticity is probably lower than unity. The value of imports would also increase via the multiplier process as shown by the movement from K to M. These likely causes and effects are based on empirical investigation by the present author. The final outcome of all these changes in the case of Malta, shown in rectangle J, would probably be a marginal improvement in the balance of trade.

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MALTA AND THE EUROPEAN COMMUNITY

The European Community (EC) was established in 1957 with the aim of setting up a *Common Market* so as to progressively promote the harmonisation of economic policies and economic expansion of member states. To achieve this aim, customs duties and quantitative restrictions within the community have been gradually reduced, and a *common external tariff* (CET) on imports from non-member countries was adopted by member states. A *common agricultural policy* (CAP) was also established and many institutions were developed with the aim of eventually creating a single European market.

The Community is composed of twelve members. Italy, Germany, France, Belgium, the Netherlands and Luxemburg were the original six members following the Treaty of Rome, which formally established the European Economic Community. The U.K., Ireland and Denmark joined the EC in 1973. In recent years, the Community was enlarged by the membership of Greece, Spain and Portugal. The EC has become the largest trading block in the world.

The Community has not yet attained full integration, in that for example, tax structures and monetary institutions are not yet harmonised, and non-tariff trade barriers still remain. Yet the foundations of a truly common market have been laid and it is planned that by 1992 a large border-free space would be created, permitting unrestricted movement of people, goods, services and capital.

Malta's Past Relations with the European Community

During the sixties and the seventies the European Community signed a number of preferential trade agreements with most non-member Mediterranean countries. After 1972, there was an attempt to harmonise these arrangements into what is known as the *Global Mediterranean Policy* which included the granting of free access to EC markets of manufactured products from Mediterranean non-member countries.

FIGURE 15.1
PERCENTAGE SHARES OF WORLD EXPORTS
AND WORLD POPULATION (1986)

EXPORTS

22.3%
37.1%
9.1%
11.2%
6.4%
14.0%

POPULATION
0.7%
6.6%
5.4%
2.9%
8.1%
76.3%

□ EEC
■ Other Europe
▨ USA & Canada
▨ Japan, Australia, & New Zealand
▨ Eastern Europe
▨ Developing Countries
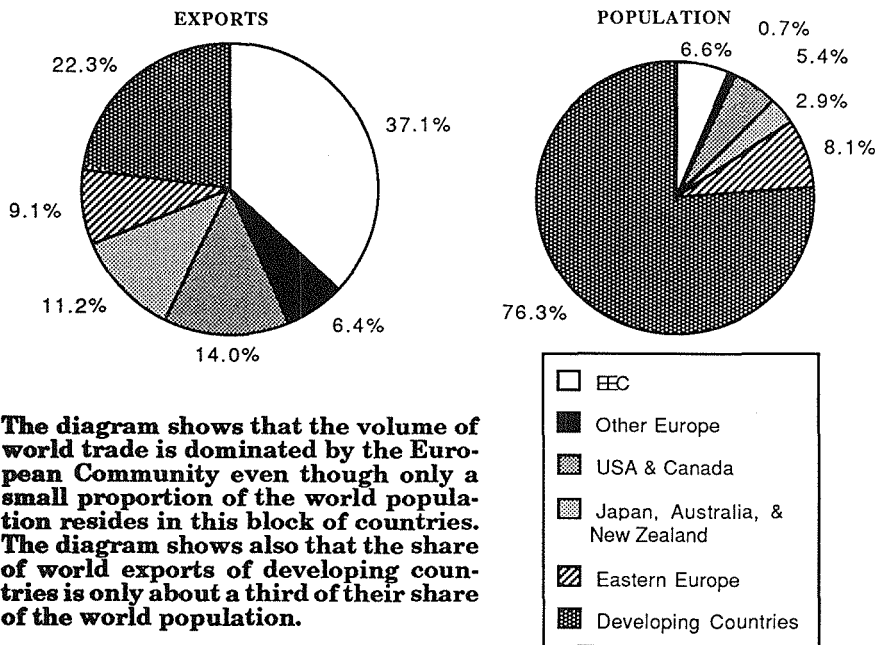
The diagram shows that the volume of world trade is dominated by the European Community even though only a small proportion of the world population resides in this block of countries. The diagram shows also that the share of world exports of developing countries is only about a third of their share of the world population.

Source: International Trade and Development
Statistics, UNCTAD 1987.

Malta's first attempt to associate itself with the EC occurred in 1967, and exploratory talks followed in 1968. An agreement setting up a formal association between Malta and the EC came into being in 1971. It was agreed that as a first stage, which was to last five years, the EC was to reduce by 70% its common external tariff for most of Malta's manufactured exports, subject to the *rules of origin*. In return, Malta was to accord, amongst other things, a phased tariff reduction reaching 35% by the fifth year of the agreement. At the end of the first stage, there was to be another five year stage, leading to the formation of a customs union between Malta and the EC.

Subsequently the tariff rates on Malta's industrial exports were reduced to zero, and some modifications were made regarding the rules of origin. The agreement was also broadened to include financial cooperation.

The second stage of the agreement never came into being, so that by 1987, the 1971 agreement still represented the major arrangement

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through which Malta derived the tariff-free access of its manufactured products into EC markets.

In 1988, the newly elected Nationalist government sought and obtained an extension of the EC association agreement till 1990, stating that it was seeking eventual full EC membership under the right conditions.

Disadvantages of Joining the European Community

Those who do not favour Malta's joining the EC cite as a major disadvantage the fact that import controls against EC members would have to be dismantled with full membership and this would give rise to a loss of output and employment in firms enjoying protection. In Malta, a large number of firms produce for the domestic market, and depend on import controls to remain in existence. On the positive side, the reduction of import controls is likely to promote efficiency. This issue will be further discussed below.

Another disadvantage associated with full EC membership is that food prices are likely to increase because of the EC *Common Agriculture Policy* (CAP). The CAP works through a system of minimum prices in EC member states, maintained by intervention buying within the EC itself, and by import levies on products entering the member states from outside the EC. On the other hand, the CAP may be beneficial to Maltese agriculture through grants for farm modernisation and better prices for products originating in Malta.

Another drawback is that the Maltese government would lose revenue from import duties, and would therefore have to find alternative sources of revenue, such as the *value-added tax* (VAT). The introduction of VAT could, in turn, push up prices. A recent FOI report has however indicated that price increases resulting from VAT could be offset by the abolition of duties on imports from Europe and that the end result could even be a reduction in certain prices.

Still another disadvantage is related to the loss of sovereignty. As a full EC member, Malta would cease to be able to act independently in a number of economic and political areas. This will be especially so after 1992, with the envisaged completion of the EC internal market. On joining the EC, Malta being the smallest state cannot expect to influence the policies of the EC in the same manner that West Germany, France, Britain and Italy can.

Advantages of Joining the European Community

Malta's economy is very closely linked to the European Economic Community. A very large percentage of its exports are directed towards Germany, England, Italy, Belgium and France, and a large percentage of Malta's imports come from these same countries. Foreign owned firms in Malta are

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FIGURE 15.2
MALTESE EXPORTS TO THE EUROPEAN COMMUNITY
AS A PERCENTAGE OF TOTAL EXPORTS
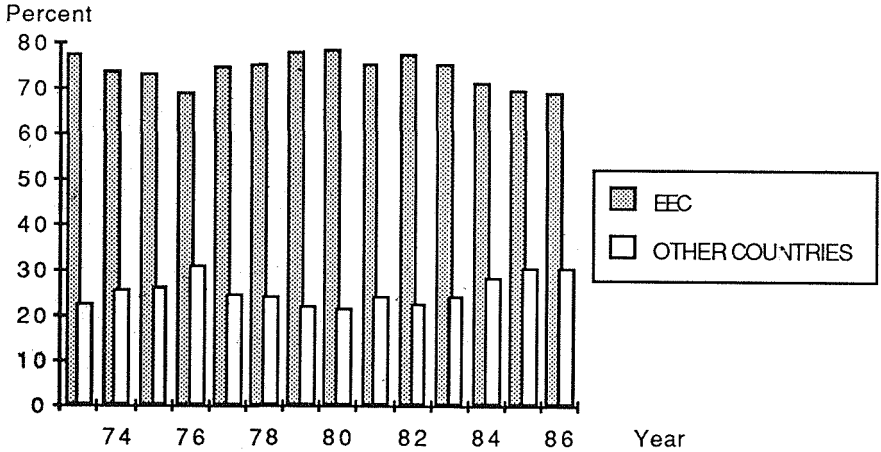
to a large extent European. In a way we are already tied to Europe, but not being full members, we cannot reap the benefits that full members enjoy.

Remaining a non-member would be increasingly disadvantageous in future due to three important reasons namely that (a) the planned increase in trade harmonisation within the community would effectively mean that non-members would find it that much more difficult to penetrate the community markets (b) full EC membership by Greece, Spain and Portugal (known as *the southern expansion*) will give these countries an increasingly competitive edge with respect to products exported by Malta and (c) the so called Global Mediterranean Policy of the EC is likely to be less advantageous to non-member countries in the future than it is now. The next section elaborates on these three reasons.

EC Membership and Exports

The completion of the EC internal market, scheduled by 1992, is likely to make it difficult for a non-member country to maintain, let alone improve, its ability to penetrate EC markets, even if it is assumed that the existing concessions and preferences remain in force.

As a non-member, Malta faces a number of non-tariff barriers on its exports to the EC. The most important barriers affecting Maltese exports to the EC are not tariffs, as is commonly thought. Maltese manufactured exports have non-tariff access to the EC markets, as part of the EC Global Mediterranean Policy. Maltese agricultural exports are subject to customs

duty, but these constitute only a very small proportion of Malta's exports.

The major actual and/or potential barriers would seem to be the imposition of quotas, the rules of origin which specify the Maltese domestic value added content of a good to qualify for tariff free entry into the EC, and other non-tariff barriers, possibly including "voluntary" restraint on Maltese exports.

At present non-tariff barriers also exist within the community, and these mostly arise due to the fact that taxes are not harmonised and that different countries require different standards. These barriers will be substantially, if not completely, reduced after 1992. On the other hand, those affecting non-member countries are likely to remain.

This suggests, therefore, that the completion of the EC internal market would improve the ease of flow of intra-EC trade, but hamper exports from non-member countries, since EC importers would find it easier to transact with EC-member than with non-member countries. Effectively this would mean a loss of competitiveness of exports originating from non-member countries.

As regards the southern expansion, the fact that three of Malta's major competitor countries, namely Greece, Portugal and Spain, have become full members implies a loss of effective competitiveness for Maltese exports. The new entrants are already enjoying a reduction in non-tariff barriers as full members, and this advantage vis-a-vis non-members will progressively increase. Moreover it is to be expected that if there is a clash of interest between the three new members and a non-member like Malta, the interests of Greece, Spain and Portugal would be placed first by the European Community.

During the past years, the EC has behaved in such a way as to leave it to no doubt that the Global Mediterranean Policy is not so global after all. In some instances, Mediterranean countries that were non-EC members, were forced to accept export restraints to the EC. These so called "voluntary" restraints, possibly made under the threat that non-observance would mean the loss of preferential treatment, were requested by the EC when it considered that imports from certain Mediterranean countries were harming the economy of EC member countries. This suggests that remaining a non-member carries with it the danger that even the existing preferences could be revoked at some future date.

EC Membership and Foreign Investment

An important contributory factor accounting for Malta's fast growth rates in exports during the seventies, was a system often referred to as *outward processing traffic* (OPT) where the EC countries, notably Germany, left the labour intensive stages of production for low wage countries. In the

clothing sector, the southern expansion of the EC will pose problems for Malta if it remains a non-member. The competitive wage rates in Greece, Portugal and Spain, will attract a considerable amount of OPT towards these countries, since these would have a favourable edge on Malta due to their full membership. In other words, by becoming full member, Malta would be in a better position to attract European investment.

As a full member, Malta could also attract more investment from non-members wanting to use Malta as a platform from which to penetrate the European market. Ireland has benefitted to a large extent from foreign investment of this type, and there is no reason why Malta should not also benefit in this regard, given of course that financial and physical infrastructural contraints are reduced as much as possible.

Malta is also strategically placed to attract investment from European countries in their bid to expand their North African and Middle Eastern markets. With the increased harmonisation of commercial legislation and political attitudes, which full membership would entail, Malta may be able to attract a considerable amount of this type of investment.

Access to Development and Social Funds

It is often argued that Malta would stand to lose by joining the EC as full member because the existing Association Agreement is more to Malta's advantage, carrying with it an EC committment regarding substantial capital flows towards Malta. This is not necessarily the case because on joining as full member, Malta would benefit, possibly to a larger extent than at present, through transfers from the EC *Regional Development Fund* and the *Social Fund*, which are mainly intended to decrease disparities between countries and regions in the EC.

Being on the lower end of the per-capita income scale, compared to the twelve existing members, Malta would undoubtedly have access to these funds, as of right, and would have the possibility, albeit small, of influencing decisions as to the allocation of EC funds.

Better Allocation of Resources

Perhaps the most important benefit that Malta would draw from full-membership, is that it would be forced to change its present import control policy, which, to an extent, actually promotes inefficiency. This policy, which developed at a fast pace during the seventies, and which has not been dismantled yet, has given rise to an elaborate, beauracratic machinery intended to encourage import substitution.

In practice this policy did have some beneficial effects, in that it gave rise to a marked reduction in the import content of domestically oriented

products, which in turn gave rise to an increase in domestic value added and employment and savings of foreign exchange. However, there was a cost to be paid, since import controls adversely affected the quality of life of the Maltese people, gave rise to a reallocation of resources towards inefficient production, and generated an inward looking mentality, whereby the existance of certain forms of production totally depended on complete bans of competing imported products.

Had economic resources been channelled into more productive areas, namely those where Maltese firms could compete without the need for a protective barrier, output per unit of money invested could have been much larger. The question arises here as to whether or not domestic production can ever compete with imported production.

There is enough evidence to suggest that we can compete with foreigners in certain areas of production. For example, the principal reason for Malta's successful performance in exports of clothing and electrical components is not the enjoyment of some special concession, but the fact that foreign buyers find our products attractive pricewise.

If Malta joins the EC as full member, Maltese firms would be forced to utilise economic resources in the most efficient manner so as to stand on their own two feet in the face of competition. There is overwhelming evidence to suggest that countries using their resources in this way tend to enjoy a much higher standard of living than others seeking mainly to protect their domestic market. As a matter of fact, the slowest growing economies tend to be those where import control policies have excessively sheltered domestic producers from competition.

Conclusion

Given that the right conditions for entry are secured, and that Malta is accepted as full EC member, what are the likely effects on domestic production and employment? That section of Maltese industry which is substantially protected will most probably face major problems, and this points to a need to start the adjustment process as soon as possible. The existing elaborate protective wall could be dismantled in progressive stages, before Malta actually becomes a full member, so as to ensure a smoother transition on entry.

No doubt, there will be some casualties, but these could be minimised through the provision of incentives, financial or otherwise, to encourage producers to utilise production methods which would enable them to face a higher degree of competition.

A substantial number of Maltese firms are already in a position to meet the competition that full membership would entail, since they have suc-

ceeded in exporting their products without the need for trade barriers. These firms will probably benefit if Malta joins the EC, since they will enjoy easier access to European markets.

The loss of jobs from domestically oriented firms resulting from the removal of trade barriers could therefore be partially or totally offset by absorption of labour by the export-oriented firms.

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16

MALTA IN AN INTERNATIONAL CONTEXT

This chapter compares the Maltese economy with those of other nations. The first part of the chapter deals with Malta's stage of economic development in relation to that of other countries. The second part discusses some characteristics of small economies like Malta.

Indicators of Development

Countries may be grouped into two broad categories namely (1) developed countries, also known as industrial market economies. These include most Western European countries, Canada, USA, Australia, New Zealand and Japan and (2) developing countries, of which there are over a 100, mostly in South America, Africa and Asia. These are sometimes also referred to as less developed countries or third world countries. Somewhere in between these two categories lie the socialist countries of Eastern Europe, and the high-income oil exporting countries.

Malta is usually classified as a developing country. This category includes low income countries, with GNP per capita (in 1984) of less than US$400, lower middle-income countries with a GNP per capita (in 1984) higher than US$400 but lower than US$1700, and upper middle-income countries, with a GNP per capita (in 1984) of over US$1700. This classification, which follows that used by the *World Development Report (1986)*, published by the World Bank, is somewhat arbitrary but it is convenient for grouping countries in terms of economic development.

Average GNP per capita for different country groupings are given in Table 16.1. The table shows that in 1984 Malta's GNP per capita was approximately US$3360. This means that Malta belonged to the upper middle-income countries. In fact, among the countries classified as developing, Malta is one of the richest in terms on GNP per capita (see Figure 16.1). For this reason classifying Malta with the under-developed world may be misleading since Malta's income per capita is much higher than that of many countries in Asia and Africa.

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Country Grouping	GNP (dollars) per capita	Manufacturing as % of GDP	Agriculture as % of GDP
Low income economies	260	15	36
Lower middle-income economies	740	17	22
Upper middle-income economies (*)	1950	25	10
Developed market economies(*)	11430	25	3
Malta	3360	30	6

(*) excluding high income oil-exporting countries and Eastern European Socialist Countries.
Source: World Development Report (1986, World Bank)

It should be noted here that the weighted averages shown in Table 16.1 conceal a great deal of variation within each grouping. For example, within the developed market economy grouping, one finds Spain with a 1984 GNP per capita of US$4400 and Switzerland with a 1984 GNP per capita of US$161330.

GNP per Capita

GNP represents the total factor income of residents from domestic output and from investment abroad. It is measured *per capita* by dividing it by the size of the population so as to take accout of the varying sizes of different countries. Thus, for example, the GNP of India is much larger than that of Malta in absolute terms, but it is much smaller per capita.

FIGURE 16.1
GNP PER CAPITA (1984)

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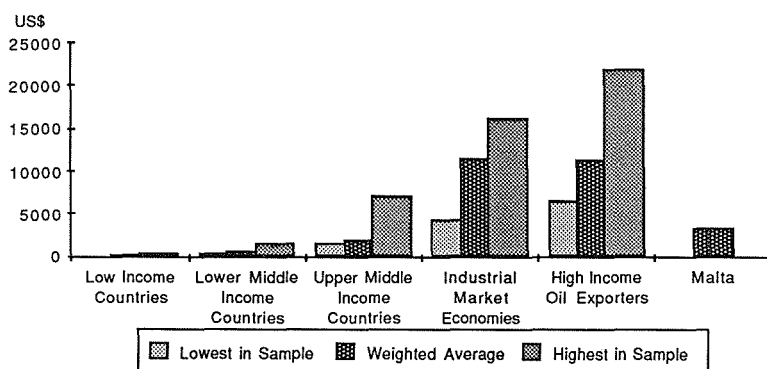
GNP per capita has a number of shortcomings as an indicator of development . It may not be perfectly comparable across countries, since there are differences in national accounting procedures. Moreover, certain biases arise from the fact that only goods and services provided through the market are counted in GNP. For example, in an advanced country, households buy semi-prepared foods and often eat at restaurants, buy ready-made clothing, have their hair cut at the barber's, and pay the doctor for periodic health check-ups. These services are included in the GNP of these countries. In many poor countries a larger proportion of such services are produced within the households and are therefore excluded from GNP. Such a discrepancy may give rise to overstatements regarding the difference in income per capita between rich and poor nations.

Another consideration to make in this respect is that comparisons of GNP per capita of different countries necessitates the conversion into a common currency such as the US dollar, and therefore the gross national product of a given country may increase or decrease, in dollars, with an appreciation or a depreciation of the domestic currency.

Another shortcoming associated with comparisons based on GNP per capita is that this indicator may not give a true picture of a country's purchasing power. Given that prices of goods and services differ across countries an X amount of dollars in say, India, may buy more goods and services than the same amount of dollars in the USA.

In spite of these and other shortcomings, data on GNP per capita is very often the best available indicator of development for purposes of international comparisons. However, other indicators are sometimes also utilised.

Other Development Indicators

An indicator which is often used to gauge the stage of development is the extent of the contribution made by the manufacturing sector to the gross domestic product. A related indicator is the extent to which a country depends on agricultural production for domestic income, employment and foreign exchange earnings.

It can be seen from Table 16.1 that the dependence on manufactured products tends to be higher and the dependence on agricultural production tends to be lower in developed countries when compared to developing countries.

Heavy dependence on agriculture and related primary production implies that a large proportion of resources are tied to a type of economic activity which tends to be less productive than manufacturing. Manufacturing is often associated with development because in general there is a much larger scope for technological progress, development of skills, and en-

FIGURE 16.2
PERCENTAGE SHARE OF MANUFACTURING IN GDP (1984)

FIGURE 16.2
PERCENTAGE SHARE OF MANUFACTURING IN GDP (1984)
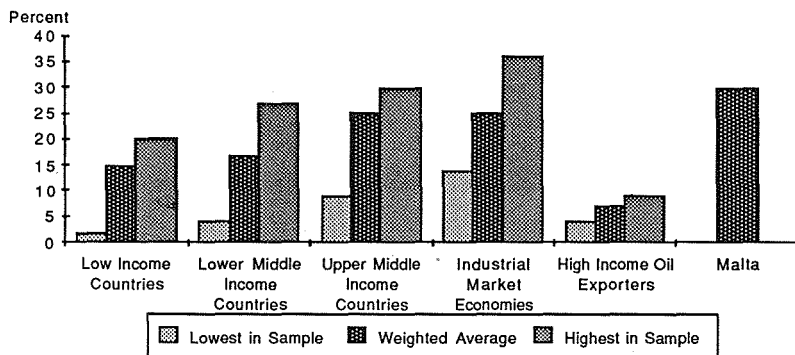
trepreneurshi p in manufacturing than in agricultural production.

Dependence on the primary sector not only means inefficient use of resources, but also uncertainty as to foreign exchange inflows. Many developing countries often experience wide fluctuations in their balance of trade because the prices of primary products tend to vary with conditions of supply, such as the weather, or crop disease . Another disadvantage usually associated with dependence on primary products is that in the long run, prices of these products tend to rise at a slower rate than prices of manufactured products. Countries depending on primary products therefore tend to pay more and more for their imports of manufactured products in relation to what they receive for their exports of primary products. In

FIGURE 16.3
PERCENTAGE SHARE OF AGRICULTURE IN GDP (1984)
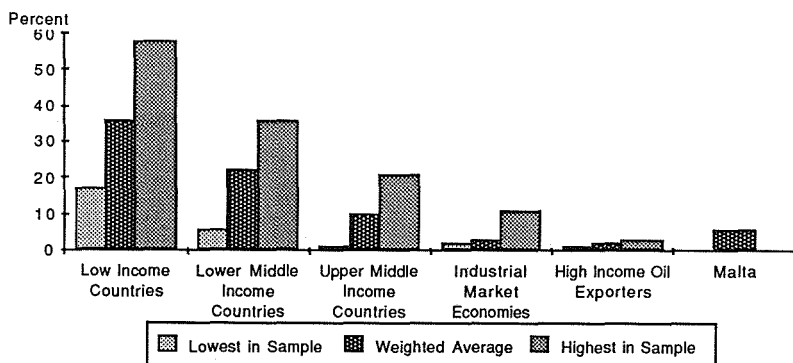
FIGURE 16.4
POPULATION PERCENTAGE GROWTH RATE   (1973-1984)
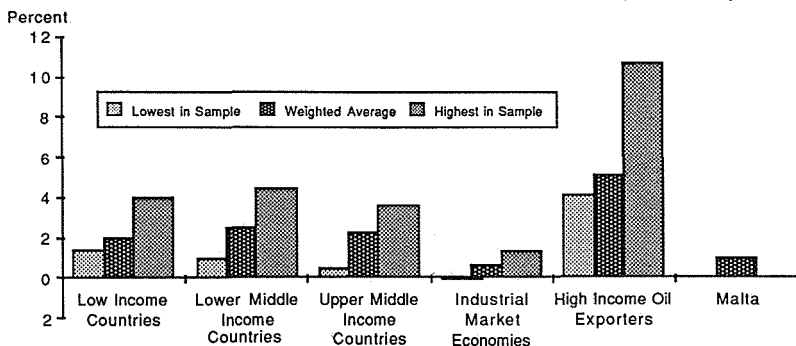
FIGURE 16.5
LIFE EXPECTANCY (1984)
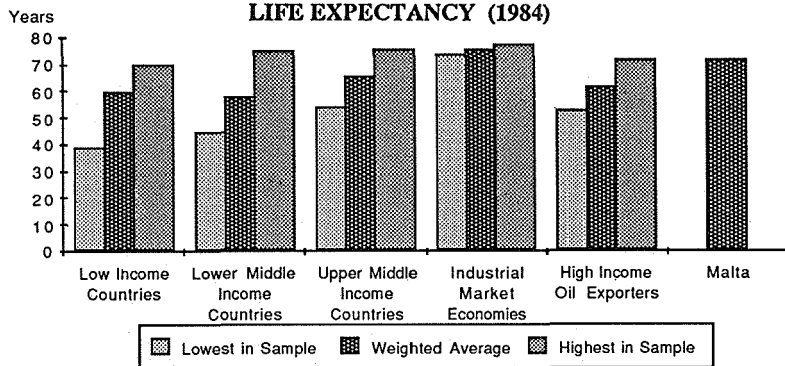
FIGURE 16.6
POULATION PER DOCTOR OF MEDICINE (1984)

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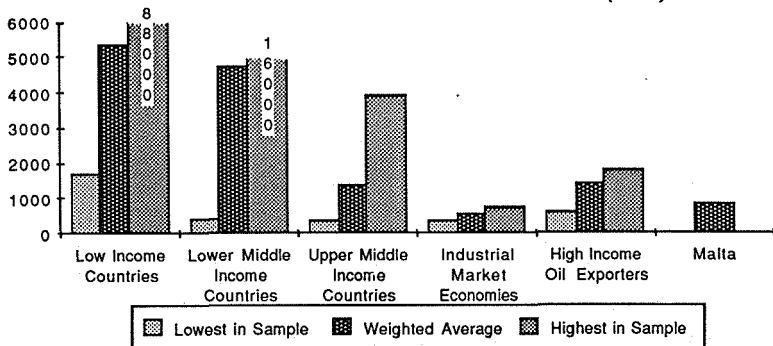
FIGURE 16.7
SECONDARY SCHOOL ENROLMENT
AS A PERCENTAGE OF SECONDARY SCHOOL AGE (1983)
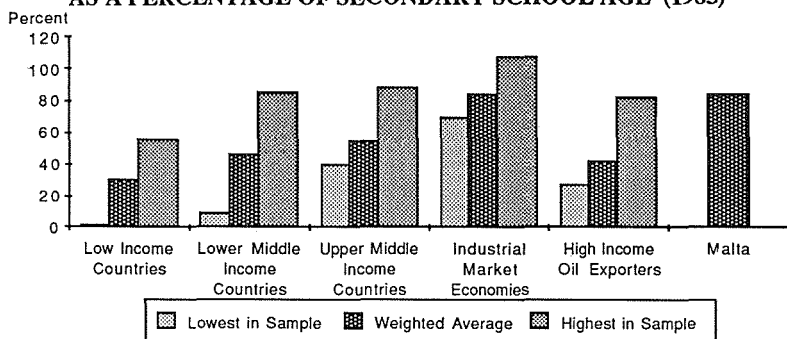
other words, their *terms of trade* tend to deteriorate.

In Malta, the agricultural sector is very small, whereas the manufacturing sector contributes around 30% to the gross domestic product. In this respect, Malta's structure of production is more akin to that of developed countries than to that of developing countries. Among the upper middle-income countries Malta has one of the largest manufacturing sector in relation to the gross domestic product (See Figures 16.2 and 16.3).

Other indicators of development relate to socio-economic factors, such as rates of population growth, and education/health facilities. Tables 16.2 and Figures 16.4 to 16.7 show that lower income countries tend to have higher population growth rates, lower life expectancy, more persons per doctor of medicine and lower school enrolment ratios than higher income countries. The table also shows that Malta is very similar to developed countries with respect to these variables.

Table 16.2.
Some Socio-Economic Indicators of Development (1984)
Weighted averages for Country Groupings and for Malta

Country Grouping	Population Growth (a) (1973-84)	Life expectancy (1984)	Population per doctor (1981)	School enrolment (b) (1983)
Low income	2.0	60	5375	31
Lower middle-income	2.5	61	4764	47
Upper middle-income	2.3	64	1374	55
Developed market economies	0.7	76	554	85
Malta	1.0	72	872	85

(a) population growth is the average percentage annual rate of change for 1973-1984.
(b) the number of children enrol ed in secondary school as a percentage of the population 12-17 years old.
Source: World Development Report (1986, World Bank)

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There are other characteristics of developing countries which are **not** typical of the Maltese economy. Common characteristics of developing countries include a very uneven distribution of income (relatively few very rich people co-existing with masses of very poor people),duality in economic organisation (strong differences between the traditional and the modern sector), heavy dependence on foreign aid for capital formation, a relatively large burden associated with debt servicing and social attitudes which tend not to be conducive towards modernisation. Such features do not characterise the Maltese economy.

Although not as rich as the developed countries of North America and North Western Europe, it would be somewhat misleading to classify Malta with the poor countries of Asia, Africa and Latin America. A better description of the Maltese economy would seem to be an *intermediately developed* economy. There are a number of countries, normally classified as *developing*, such as Argentina, Singapore, Hong Kong, Cyprus and Israel, that like Malta, are in an intermediate stage of development. Some countries generally grouped with the *developed* countries of Western Europe including Spain, Greece, Portugal and Ireland would also fit in this category.

Malta as a Small Nation

A distinguishing feature of the Maltese economy is its size. In terms of population and land area, Malta is one of the smallest nations of the world. Smallness does not necessarily render a country underdeveloped, since there are small countries, such as Luxemburg, the Bahamas, Iceland, Bahrain and Cyprus that have done rather well in terms of economic development. However there are a number of drawbacks associated with small size, as shall be explained below.

The size of the population is very often used as an index of country size. However what renders an economy small is subject to some debate. Traditionally smallness has been associated with economies described as price-takers with no influence on their terms of trade. This index of size is not however of practical use in classifying economies since most developing countries, including some of the bigger ones, would fall into this category.

The use of a population index for purposes of classification by size has a number of advantages. It is related to the size of the labour force and of the number of consumers. Thus, from an economic point of view, this index reflects the constraints imposed by human resources. Also from a statistical point of view, population size is generally more readily available and is less ambiguous than variables associated with land area and GNP. It is probably for these reasons, among others, that measuring country size in

terms of population has found broad acceptance in research work in this area of study.

There remains the question, however, as to what population size constitutes a small economy. Some authors prefer to work with a cut-off point of 5 million while others favour a cut-off point of around 1 million population. Malta would be classified as a small economy by whichever index is used. It has one of the smallest populations and land areas in the world, as shown in Table 16.3.

Table 16.3.
Selected 1985 Data for a Sample of Countries
Classified by Population Size in Descending Order

Country	Population (Million persons)	Area (Thousand Sq. Km.)	GDP (Million US$)	Exports as percentage of GDP
China	1042.59	9561	265.5	10
India	758.93	3288	196.9	6
USA	238.02	9363	3959.6	8
Brazil	135.56	8512	226.8	12
Japan	120.74	372	1325.2	15
Mexico	79.00	1973	177.5	18
Canada	25.43	9976	348.3	29
Switzerland	6.37	41	92.8	39
Denmark	5.12	43	58.1	37
Norway	4.14	324	58.4	47
Cyprus	0.67	9	2.3	52
Luxemburg	0.36	3	3.6	78
Malta	0.34	0.3	1.0	72
Barbados	0.25	0.4	1.2	65
Belize	0.16	0.2	0.2	56

Source: Handbook of International Trade Statistics (UNCTAD, 1987)

Characteristics of Small Economies

A characteristic of small economies is that they tend to depend on international trade more than large economies do. This dependence is usually measured in terms of the ratio of exports or imports to GDP. Empirical studies on this subject have produced statistically significant negative relationships between the dependence on international trade and population size. This tendency is also apparent in Table 16.3, which presents data on the export/GDP ratios for a sample of countries with different population

sizes. This data can be compared with that of Malta, also shown in the table.

One reason for the relatively high dependence on foreign trade is that in small countries the size of the domestic market is small. Because of this, these countries find it impossible to support efficient production in domestically oriented industries, and are therefore forced to expand their production via exports of goods and services.

Another reason is that small countries tend to lack natural resources, and hence their import bill tends to be relatively large. The need for foreign exchange to finance this import bill forces small countries to export a large proportion of their output.

It has been observed also that the industrial set-up and the export market in small countries tend to be concentrated on a few commodities. A number of authors argue that this is the result of the constraint on size. A small economy finds it difficult to support a wide range of industries requiring vast amounts of natural raw materials. Some small countries depend on one major industry such as sugar, tourism or petroleum.

These characteristics are present in the Maltese economy. Malta is heavily dependent on exports for domestic income and employment and for foreign exchange receipts. Moreover exports are concentrated on a few categories of goods and services. A large proportion of Malta's exports of merchandise is produced by the clothing industry and a large proportion of exported services are related to the tourist industry.

FIGURE 16.8
POPULATION AND EXPORTS
AS A PERCENTAGE OF GDP (1985)

Country & Population(*)

Malta (0.4)
Guyana (1)
Norway (4)
Switzerland (6)
Austria (7)
Kenya (21)
Spain (39)
Japan (121)
U.S.A (238)
China (1042)

0   10   20   30   40   50   60   70   80

* Population in millions in brackets after country name

Percent
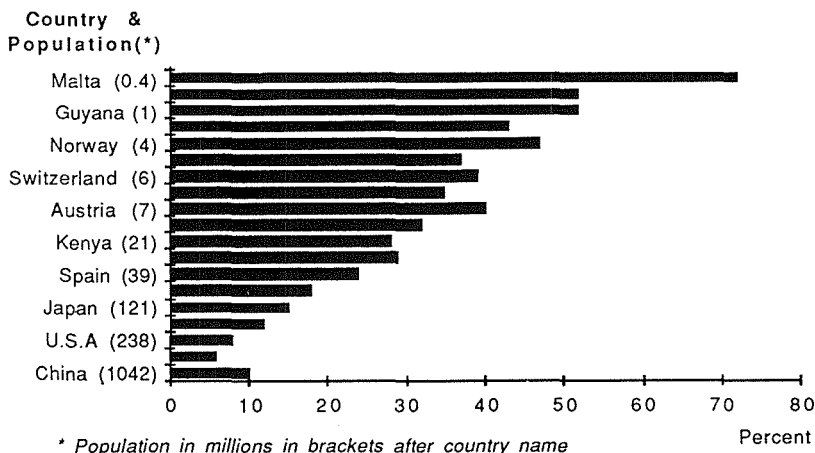
The consequences of this high degree of dependence on a few product-groups imposes serious disadvantages on a small country. Most of all, it may lead to excessive fluctuations in exports receipts. If demand for a particular product-group changes, the country exporting that particular product would be faced by a large decline in its foreign exchange earnings.

On the positive size, it can be argued that small size may render a country more competitive through specialisation on a few products. Moreover, small size may enable the country to adjust quicker to sudden changes than is the case with large countries.

Another variable associated with size is the extent to which a country is a price taker and therefore unable to influence its terms of trade. Maltese exports and imports, for example, are negligible when compared to world trade, and therefore there is no way in which Malta can influence world prices.

Finally, size is associated with the extent to which a country can control its destiny as an independent nation. From a purely economic point of view, the level of economic activity and domestic employment of small countries are highly influenced by world events, as was the case with Malta during the global recession of the eighties. This follows from the high degree of *openness* of small economies. Moreover, because of their limited financial and human resources, small nations generally have to rely on the strength of larger countries for national defence and security, and again, this limits their ability to act as independent nations.

International Comparisons

The comparisons made in this chapter should be interpreted with caution because to some extent they rely on statistics which may not be strictly comparable across nations.

Moreover, certain indicators of development, such as the degree of well-being of the people, are somewhat difficult to quantify and generally speaking, discussion on these issues remains subjective and based on specific country circumstances.

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PART FIVE

ECONOMIC CHANGES OVER TIME

17

MULTIPIERS IN THE MALTESE ECONOMY

In macroeconomics, the income multiplier process describes how a change in any expenditure gives rise to a change in aggregate income which may be greater than that expenditure which brought it about. It occurs through a series of spending and respending on purchases of domestically produced goods and services.

Incomes and Expenditures

Expenditures by buyers are at the same time incomes to the sellers. Thus an initial increase in aggregate expenditure in Malta gives rise to a simultaneous increase in aggregate income. A fraction of this income is respent on domestically produced goods and services, and therefore passed on within the flow of income in Malta. The remaining fraction may be saved, taxed away by the government or used to import goods and services from abroad. Savings, taxes and imports are called *withdrawals* since they are not passed on within the income flow of a given economy.

That fraction of aggregate income which is respent gives rise to further increases in aggregate income, a fraction of which is again respent, and so on and so forth. One expects that the value of a multiplier increases as the proportion of income spent and respent on domestic output increases. On the other hand, the value of a multiplier is expected to decrease as the proportion of income saved, taxed or used to buy imports increases, since in this case a larger fraction of income is withdrawn from the domestic income flow and therefore not passed on within the system.

The magnitude of the income multiplier is measured by the ratio of the final change in aggregate income to the change in the initial expenditure which brought it about. Thus, for example, if in a given period, aggregate income increases from Lm400 to Lm415 million as a result of an increase in government expenditure from Lm80 to Lm90 million, then the income multiplier with respect to government expenditure would be equal to 1.5 (Lm15 million divided by Lm10 million). In this case, aggregate income

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increased by one and a half times as much as the increase in expenditure which brought it about.

The exercise of computing the value of a macroeconomic multiplier involves measuring the proportion of income that is spent and respent on domestically produced goods and services, and the proportion that is withdrawn, after taking into account all the *rounds* of spending and respending.

In practice this may not be an easy task because the economy is made up of a large number of simultaneously induced expenditures and withdrawals the estimation of which may require a large volume of data and the application of sophisticated econometric methods. Generally speaking, the exercise is carried out through the construction of a model with a number of equations intended to replicate the most important inter-relationships within an economy.

Estimates of Induced Propensities

In a study carried out by the present author [See Briguglio (1987)] the magnitudes of different multipliers for Malta were estimated by means of a number of equations which measured the extent to which aggregate savings, taxes and imports changed with changes in incomes and expenditures in the Maltese economy during the period 1973–1984.

The following are some of the results obtained:

(a) Personal consumption expenditure has tended to increase by Lm84 for every Lm100 increase in disposable personal income. This implies that personal savings have tended to increase by Lm16 for every Lm100 increase in disposable personal income.

(b) Expenditure taxes have tended to increase by about Lm17 for every additional Lm100 in consumption expenditure which is equivalent to about Lm8 for every Lm100 increase in GNP at market prices.

(c) Company savings (i.e. undistributed profits) plus company taxes have tended to increase at a rate of Lm16 of every additional Lm100 in GNP at market prices.

(d) A Lm100 increase in GNP at market prices has tended to push up personal income by Lm76. This follows from (a) and (c) since not all the increase in GNP constituted factor income earned by households. As indicated, 8% of an increase in GNP was taxed on expenditure, and 16% of the same increase was retained by companies.

(e) Personal income tax (including national insurance contributions) has tended to increase at a rate of Lm23 for every additional Lm100 in personal income. This implies that disposable personal income (which is personal income less personal income tax) increased by Lm77 with a Lm100 in personal income.

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FIGURE 17.1
THE CIRCULAR FLOW OF INCOME
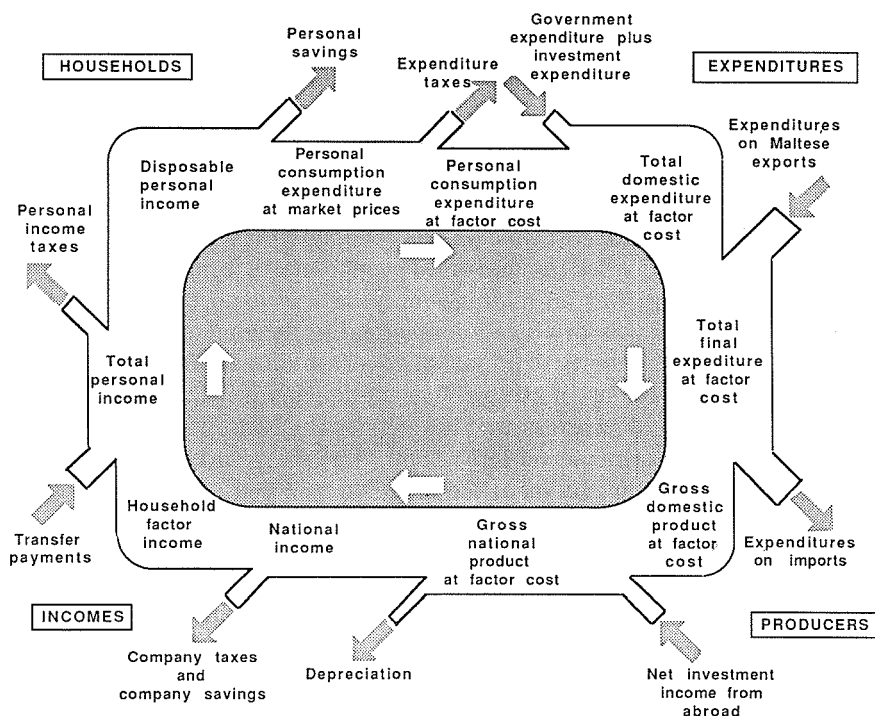
The diagram summarises the multiplier flows within an economy. Start-ing from the left hand, households receive incomes in the form of wages, dividends, welfare receipts and so on. A proportion of personal income "leaks" away in the form of personal taxes and personal savings, and what remains is spent on consumption of goods and services at market prices. Subtracting net expenditure taxes we get personal consumption expendi-ture at factor cost. Apart from expenditures by households, we have other expenditures by the government and by investors (on capital goods such as machinery and construction), and by non-residents on Maltese exports. All these expenditures constitute the *total final expenditure.* These expenditures are at the same time, income, to those producing goods and services. Not all receipts return back into the domestic income flow since a proportion of them "leak" away on imports of goods and services from abroad. What remains is the Gross Domestic Product. This represents what is actually produced by the domestic economy and what is earned by all those participating in domestic production. Part of this is retained by business to pay taxes and to finance new investment. The remainder is dis-tributed to households in the form of wages, dividends and so on. Personal income is arrived at by adding transfer payments. The flow then repeats itself and grows or diminishes according to the size of the leakages or injections within the economy.

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Given that, from (d) a Lm100 increase in GNP induced an increase of Lm76 in personal income, it follows, from (e), that this in turn induced LM58.5 increase in disposable personal income, which in turn, from (a), induced Lm49 in consumption expenditure.

(f) Imports of goods and services have tended to increase by Lm32 for every additional Lm100 in consumption, investment and export expenditure added together. Given that a Lm100 increase in GNP gave rise to a Lm49 increase in consumption, it follows that a Lm100 increase in GNP induced a Lm15.7 increase in imports.

(g) A Lm100 increase in exports has tended to increase GNP by Lm68. This follows from (f) since the marginal propensity to import out of exports was 32%, implying that on average only 68% of export expenditure on goods and services was produced domestically. It was assumed that the direct marginal propensity to import of government expenditure was zero.

The data used for estimating these tendencies were annual observations, measured at 1973 prices, and taken from the National Accounts of the Maltese Islands for the period 1973-1984. The marginal propensities just described can therefore be regarded as a thirteen year average.

The multipliers for the Maltese economy can be estimated by combining the marginal propensities just described. Thus for example, one can start by assuming a change in government expenditure of Lm100. This would increase GNP by the same amount since GNP is composed of all expenditures on domestic goods and services. The increase in GNP would then induce changes in personal income, which would in turn give rise to an increase in disposable personal income. Disposable personal income would then induce an increase in consumption and consumption expenditure would give rise to an increase in imports. The domestically produced (i.e. net of imports) increase in consumption would then give rise to an equivalent increase in the GNP. This will induce another round of changes in personal income, consumption, and so on and so forth. This process will continue through a series of rounds, giving rise to smaller and smaller induced changes with every round.

For ease of reference, the estimates of the induced propensities just described are reproduced here:

INDUCED PROPENSITIES	ESTIMATED MAGNITUDE
Marginal Propensity to Consume	84% of Disposable Personal Income
Marginal Propensity to Save	16% of Disposable Personal Income
Marginal Personal Tax Rate	23% of Personal Income
Marginal Expenditure Tax Rate	17% of Consumption or 8% of GNP
Marginal Company Tax + Savings Rate	16% of GNP
Marginal Propensity to Import	32% of Consumption + Exports + Investment

The following two tables give two numerical examples of the multiplier process using the estimates of these marginal propensities. The first table shows the effect of an initial Lm100 increase in government expenditure, whereas the second table shows the effect of an initial increase in export expenditure.

Table 17.1.
Changes in Lm in the Induced Macroeconomic Variable arising from a Lm100 change in GOVERNMENT EXPENDITURE

Round	GNP	CLK	TXE	PRS	TXP	DSP	CSM	SVG	MPT	Next Round GNP
1	100.0	16.0	8.0	76.0	17.7	58.3	49.0	9.3	15.7	33.3
2	33.3	5.3	2.7	25.3	5.9	19.4	16.3	3.1	5.2	11.1
3	11.1	1.8	0.9	8.4	2.0	6.4	5.4	1.0	1.7	3.7
4	3.7	0.6	0.2	2.8	0.6	2.2	1.8	0.3	0.6	1.2
5	1.2	0.2	0.1	1.0	0.2	0.8	0.6	0.2	0.2	0.4
6	0.4	0.1	0.1	0.3	0.1	0.2	0.2	0.0	0.1	0.1
7	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.1
8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Final Change:	150	24.0	12.0	114.0	26.5	87.4	73.4	14.0	23.5	
Multiplier	1.50	0.240	0.120	1.140	0.265	0.874	0.734	0.140	0.235	

The multiplier process shown in Table 17.1 works as follows. In round 1, a Lm100 increase in government expenditure would increase GNP by Lm100, which would increase company leakages (CLK) by Lm16 and expenditure taxes (TXE) by Lm8, leaving Lm76 as personal income (PRS). This would increase personal tax (TXP) by Lm17.7, leaving Lm58.3 as disposable income (DSP). This change in disposable personal income would increase consumption (CSM) by Lm49, and personal savings (SVG) by Lm9.3. The increase in consumption would increase imports (MPT) by Lm15.7 so that expenditure on domestic value added would amount to Lm33.3. GNP would therefore change by the increase in consumption net of imports, that is by Lm33.3.

In the second round, the process is repeated again, but this time the increase in GNP is Lm33.3, which comes from the first round. This would induce changes in all the other variables. The process is repeated in subsequent rounds, but with every round, the induced changes become smaller and smaller and by the 8th round they become negligible. If the GNP changes in all the rounds are summed, the final change brought about by an initial change in government expenditure of Lm100 would be an increase of Lm150. This implies a GNP multiplier of 1.5 with respect to government expenditure. The last line of Table 17.1 shows the multipliers of all the induced variables with respect to government expenditure.

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Table 17.2 shows the multiplier effects arising from a Lm100 increase in exports. The difference between government expenditure and export expenditure is that the former is assumed to have an induced marginal propensity to import of zero, whereas the marginal propensity to import of exports is estimated to be 32%.

Table 17.2.
Changes in Lm in the Induced Macroeconomic Variables arising from a Lm100 change in EXPORT EXPENDITURE

Round	GNP	CLK	TXE	PRS	TXP	DSP	CSM	SVG	MPT	Next Round GNP
1	68.0	10.9	5.4	51.7	12.0	39.6	33.3	6.3	42.7	22.6
2	22.6	3.6	1.9	17.2	4.1	13.2	11.1	2.1	3.5	7.6
3	7.6	1.2	0.6	5.7	1.3	4.4	3.7	0.7	1.2	2.5
4	2.5	0.4	0.2	1.9	0.4	1.5	1.2	0.3	0.4	0.8
5	0.8	0.1	0.1	0.7	0.2	0.5	0.4	0.1	0.1	0.3
6	0.3	0.1	0.0	0.2	0.0	0.1	0.1	0.0	0.1	0.1
7	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.0
Final Change:	101	16.3	8.2	77.5	18.0	59.4	49.9	9.5	48.0	
Multiplier	1.019	0.163	0.082	0.775	0.180	0.594	0.499	0.095	0.480	

Thus, an initial effect of a Lm100 increase in exports would immediately increase GNP by Lm68, and imports by Lm32. This is shown in the first round value of imports of Lm42.7, of which Lm32 are induced by exports and Lm10.76 by consumption expenditure.

Table 17.2 shows that the GNP multiplier with respect to exports is lower than that for government expenditure, the former taking a value of 1.5 whereas the latter taking a value of 1.019. The reason for this is, as already noted, that exports have a 32% immediate import content.

As in the case of government expenditure, a change in exports would give rise to multiplier effects on all the induced variables. For example, the import-export multiplier is 0.48, indicating that after all multiplier rounds are considered, a Lm100 in exports would increase imports by Lm48. The multiplier process just described is presented in diagramatic form in the appendix to this chapter.

Some Implications

Tables 17.1 and 17.2 have a number of interesting implications. First of all, the tables show that there are different multipliers associated with different induced variables, as shown in the bottom lines of Tables 17.1. and 17.2.

Also, there are different multipliers pertaining to any one chosen induced variable with respect to different exogenous (independently deter-

mined) expenditures. Thus the GNP multiplier is 1.5 with respect to government expenditure (from Table 17.1), and 1.019 with respect to exports (from Table 17.2). One can also compute multipliers with respect to other independently determined variables, such as exogenous investment.

Of interest is that although government expenditure is assumed not to have an immediate import content, it tends to induce changes in consumption which contain an import content. For example, with respect to Table 17.1, a Lm100 increase in government expenditure induced Lm23 in imports, after all multiplier rounds are considered. As regards a Lm100 increase in exports, the effect on imports was an increase of about Lm48, as shown in Table 17.2

Of interest also is that an increase in government expenditure gave rise to an increase in personal, corporate and expenditure taxes. Table 17.1 shows that an increase of Lm100 in government expenditure increased personal income tax by Lm27 and expenditure tax by Lm12. It is estimated also that a Lm100 increase in government expenditure gave rise to an increase of Lm4 in company tax, (marginal company tax is not shown separately in the table for simplicity, and is incorporated in the company leakages). This means that an increase of Lm100 in government expenditure tended to increase total tax revenue by Lm43, so that the net government expenditure was about Lm57.

It should be noted that the estimates shown in Tables 17.1 and 17.2 pertain to aggregate macroeconomic variables. For example the marginal propensity to import of 32% applies to the marginal propensities to import out of consumption, investment and exports considered together. Every category of expenditure can be further disaggregated. For example exports of merchandise most probably have a higher import content than exports of services. This suggests that the multiplier effects with respect to exports would be higher for a Lm100 injection in exports of services, say tourism, than for a Lm100 injection in exports of goods, say clothing. The multiplier estimates shown in table 17.2 therefore can be regarded as some form of weighted average of the multiplier effects with regard to exports of goods and services taken together.

Although investment is not considered separately in table 17.1 and 17.2, it also has a multiplier effect. As in the case of exports, investment can be disaggregated into construction and machinery. It is probable that a Lm100 increase in construction expenditure would give rise to higher multiplier effects than machinery expenditure, since the former type of investment tends to have a lower import content that the latter.

One implication of this is that the fast growth rates in the Maltese economy during the second half of the sixties and during the second half of

the seventies may be related to multiplier effects, associated with construction expenditure in the sixties and tourist expenditure in the seventies, which grew at relatively fast rates during these two periods. These two types of expenditures tend to have relatively low import contents, and by implication, high domestic value added content.

The multipliers shown in Tables 17.1 and 17.2 are called *impact multipliers* because they show the effect of an exogenous expenditure on the induced variables during any one given year. In reality, a change in one year may have an effect on subsequent years. For example, it is possible that machinery investment in 1980 occurred as a reaction to increases in GDP during the previous years. This is called the acceleration principle, and is explained in Chapter 6. The introduction of lagged relationships between induced variables in a model simulating the multiplier process renders the model dynamic (as opposed to static).

Dynamic considerations are not shown in Tables 17.1 and 17.2 since they would unduly complicate the exposition. But there is evidence that because of the lagged response of induced investment, economic activity in any one year in Malta, to an extent depends on economic activity in previous years.

Keynesians, Monetarists and Supply Siders

The multiplier process is associated with Keynes. The basic idea behind Keynesian economics is that increases in exogenous expenditures induce increases in economic activity. One Keyesian prescription is an increase in government expenditure in times of recession so as to generate a multiplier chain reaction which would reduce unemployment.

Such a policy, however, may not have the desired results. To go back to the examples shown in Tables 17.1 and 17.2, there is no absolute guarantee that a sudden increase in government expenditure would in the future expand GNP by 1.5 times as much as the expenditure. It is possible, for example, that the aggregate income generated by such an increase in government expenditure induces additional purchases of fridges, washing machines, videos and other goods with a high import content. In this case, the marginal propensity to import of 32% might understate the real induced leakage and the multiplier effects would be much lower than those shown in the tables. In other words, the growth in expenditure may have an important effect on imports, but a negligible effect on GNP and employment.

Moreover, one has to consider the effects that an increase in government expenditure might have on the general price level. If, for example, the increase in domestic demand is not matched by an increase in domestic

supply, the end result could well be an inflationary spiral, which would in turn give rise to a loss in export competitiveness. In this case, there is a possibility, remote as it may be, that government expenditure gives rise to a loss of jobs rather than to an increase in employment.

As was explained in Chapters 9 and 10, monetarists take a long-run view of the economy and disagree with the short-run remedies proposed by Keyesians. They believe that market forces, by themselves, would act as corrective influences on the economy and would eliminate inflation and unemployment if allowed to work. The most important prescription advocated by monetarists is that money supply should be allowed to expand at a controlled rate, but otherwise, government should intervene as little as possible.

The debate is further enhanced by the contribution of those known as *supply-side* economists. Proponents of the Keynesian view, holding that increases in output and employment are induced by expenditures, are called *demand-side* economists. Supply siders believe that tax reductions are the best way of promoting long-run economic growth, since this method would stimulate more work-effort and more savings for capital formation.

This controversy has some relevance to the Maltese economy in that it sheds light as to whether economic solutions should be sought from the demand-side or the supply-side of the economy, and as to whether short-run solutions conflict with long-run ones.

In the case of short-run stabilisation policy, the Maltese governments have in general adopted Keyesian type of measures, accompanied by direct controls. Thus for example, in 1987 the government embarked on a programme of public works to create direct employment and increase aggregate income.

In general, monetary policy was not resorted to for stabilising the Maltese economy. The reason for this would seem to be that this type of policy is ineffective in Malta, as was explained in Chapter 8. Thus for example, when the control of inflation was assigned a primary role as was the case between 1982 and 1987, the measures utilised consisted mostly of direct controls rather than monetary restraint.

As for long-term growth, the Maltese policy makers would seem to have accepted the argument that demand-side strategies, such as increasing expenditures, are not the only solution. The incentive package schemes to attract foreign investment, and the encouragement of domestic investment, form part of this strategy. It would be interesting to consider, in this regard, whether the existing tax structures and the existing tax-rates are conducive to long-run growth.

APPENDIX TO CHAPTER 17
A Graphical Representation of a Simplified Multiplier Process with Marginal Propensities Derived from Maltese Data.

FIGURE 17.2A
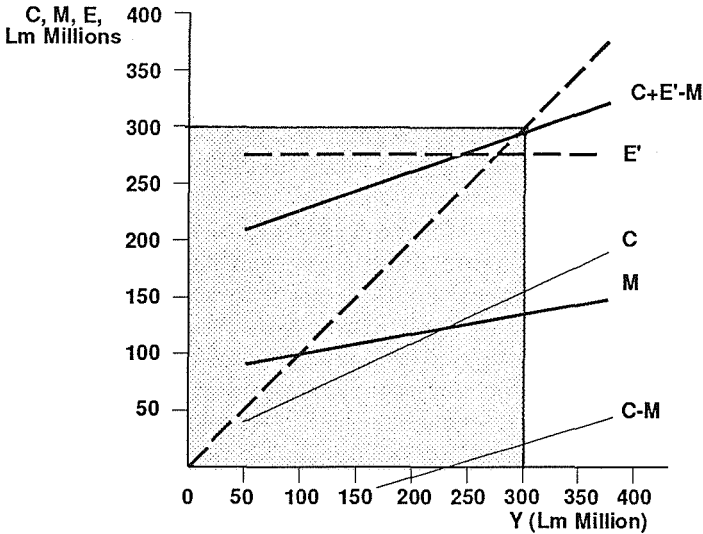
In the diagram, C = Consumption, M = Imports, E = Exogenous Expenditures (Government expenditure + investment expenditure + exports + net investment income from abroad) and Y = GNP.

The lines labelled C and M show how consumption and imports change as Y changes. The line labelled C-M is the difference between consumption and imports and measures the extent to which a change in Y induces changes in consumption less imports. The line labelled C+E'-M shows total expenditures on domestic value added (i.e. on total expenditure less imports).

It is assumed that the marginal tax rates are incorporated in the marginal propensity to consume out of GNP.

The 45° line represents points where values on the vertical axis are equal to values on the horizontal axis. This line cuts the C+E'-M line where Y=Lm300.4 million. At this point, domestic income (GNP = Y) and expenditure on domestic value added (C+E'-M) are equal. This equilibrium solution occurs when M = Lm145.5 million and C = Lm166.9 million.

For the mathematically minded, Figure 17.2A was drawn on the basis of the following equations:

Consumption:	C	=	20	+ 0.489 Y
Imports:	M	=	98	+ 0.157 Y
Consumption less imports:	C-M	=	-78	+ 0.331 Y
Exogenous Expenditures:	E'	=	279	
Expenditures on domestic value added:	C+E'-M	=	201	+ 0.331 Y

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The marginal propensities to consume (0.489) and to import (0.157) out of GNP are based on estimates computed by the present author. [See Briguglio, (1987)]

We now allow for a change in government expenditure (G) which forms part of E so that E' shifts to E" as shown in Figure 17.2B. The assumed change is Lm25 million so that E"=Lm304 million. The new line of expenditures on domestic value added intersects the 45° line where Y=Lm337.8 million

FIGURE 17.2B
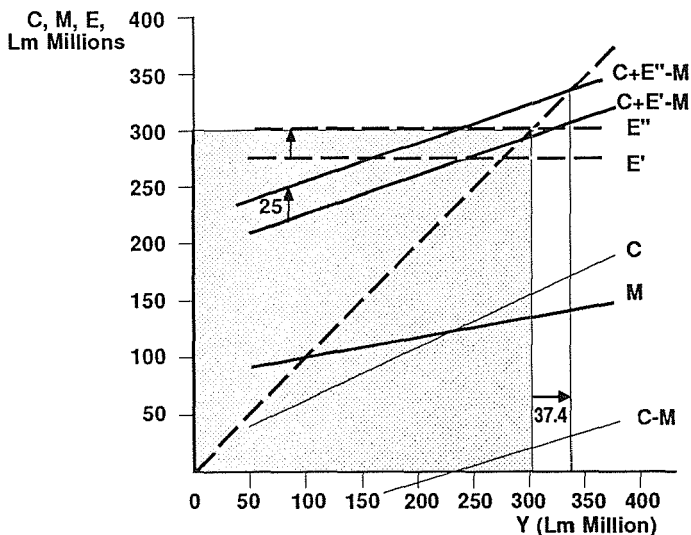
The GNP multiplier with respect to government expenditure is measured by the change in Y divided by the change in G (37.4/25) and is equal to 1.495. At this new equilibrium point, C=Lm185.2 million which means that a Lm25 million increase in G has given rise to an increase of Lm18.3 million in consumption. The consumption multiplier with respect to G is therefore 0.731. Similarly at the new level of Y, M=Lm151.4 million, which means that the change in imports is Lm5.9 million and the import multiplier with respect to G is 0.236.

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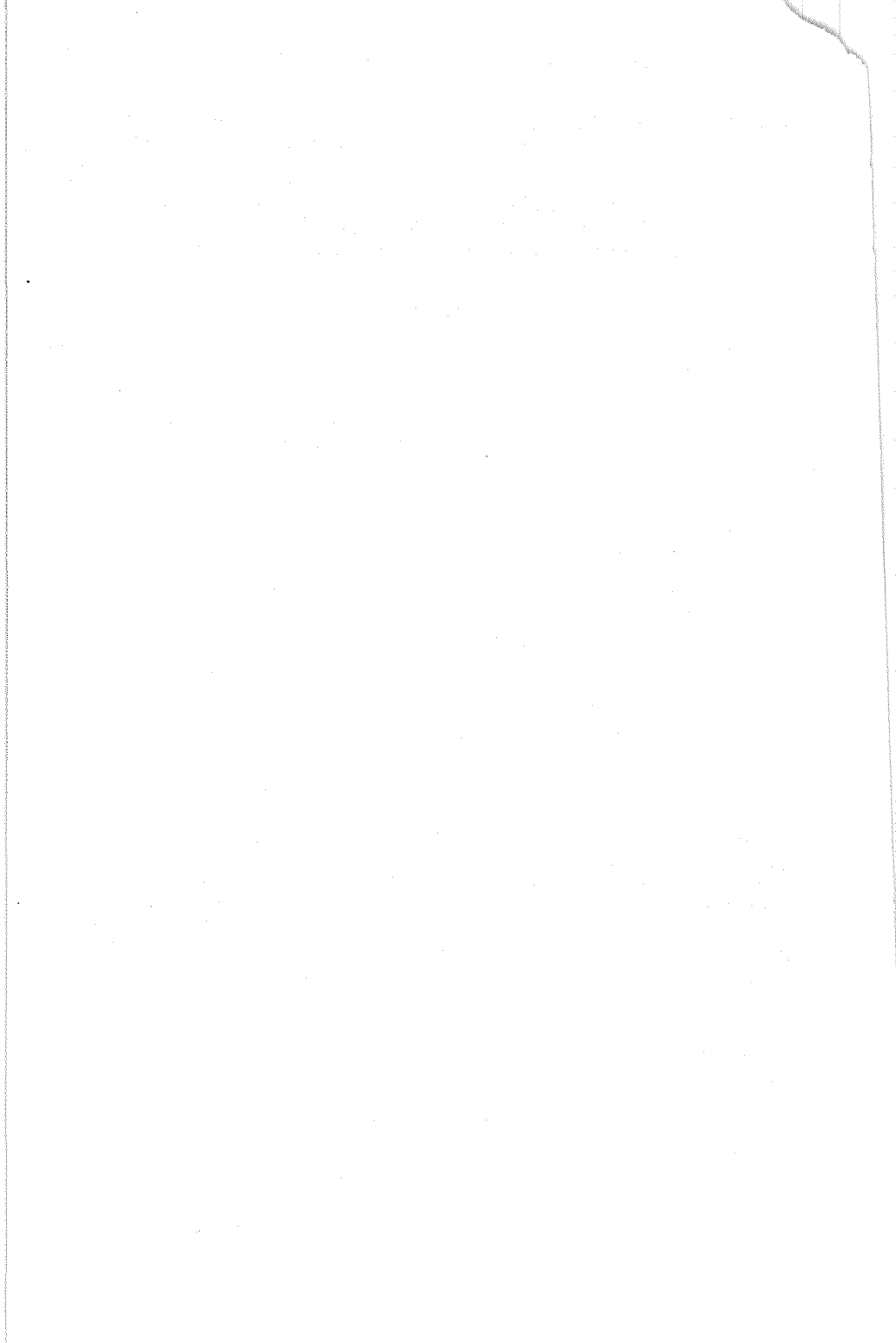
ECONOMIC CHANGES
SINCE 1960

This chapter gives a brief account of the most important changes that have occurred in the Maltese economy between 1960 and 1986. It will be shown that this period was characterised by the expansion of the manufacturing sector and the phasing out of the British forces bases in Malta. It will be shown also that during the same period, the Maltese Gross Domestic Product and other important macroeconomic variables have followed a cyclical pattern of change.

Development Planning in Malta – A Brief Outline

Until the fifties, the livelihood of the Maltese people depended to a very large extent on revenues derived from the servicing of the British military, naval and airforce establishments. Because of this, the Maltese economic structure was grossly unbalanced, with excessive reliance on sources of income and employment tied to the defence needs of a foreign country. The growing awareness that Malta's strategic importance in the British defence requirements was due to decline sooner or later, led to attempts by successive Maltese governments to create new forms of economic activity.

During the second half of the fifties, it was obvious that changes in the British defence policies were going to result in massive rundowns of the British presence in Malta, and the need was felt to implement a co-ordinated development plan to diversify Malta's economy. Since that time, and until 1986, six development plans were launched. Although during this time Malta had governments of different ideologies, the basic objective of successive plans was essentially the same, namely that of making Malta a viable economic unit, which by its own efforts would provide jobs for those who sought them.

To achieve this aim measures were taken to diversify the economy away from defence occupations to manufacturing, tourism and agriculture. Since Malta's internal market is very small, industrial expansion had to be

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sustained through increased reliance on the export market, and therefore the importance of competitiveness for attaining the plan objectives, was always stressed. All plans insisted on the need for adapting attitudes and methods production to the changing structure of the Maltese economy.

The major differences between the planning approaches under different governments were related to the role of the state in directly productive activities. The Nationalist government believed that state organs should only take a backing role in such activities, whereas the Labour governments held that the state should participate directly, especially where the private sector failed to take the initiative.

The planning process in Malta has been beset by a series of difficulties, which were not of Malta's own making. These included the successive and sometimes unexpected decreases in the British defence expenditures during the sixties, the international energy crisis and unprecedented inflationary pressure during the seventies, and the international recession during the early eighties. A satisfactory measure of success has however been achieved, and this is evidenced by the growth in the number of the gainfully occupied, the expansion of the manufacturing sector, the rise in real national income and the decrease of dependence on British military expenditure.

Structural Changes in the Maltese Economy

Table 18.1 gives the actual magnitudes of the Maltese Gross Domestic Product, of employment and of unemployment for selected years between 1960 and 1986

Table 18.1.
GDP at Factor Cost, Employment and Unemployment

	1960	1964	1969	1974	1979	1984	1986
GDP (Lm million)	43.5	43.5	70.8	118.6	293.7	421.4	430.6
Employment (thousands)	88.7	86.5	100.5	102.3	118.8	109.2	115.1
Unemployment (thousands)	3.8	7.6	3.8	6.3	3.3	10.5	8.5
Labour Force (thousands)	92.5	94.2	104.3	108.6	122.1	119.6	123.6
Unemployment Rate (%)	4.1	8.1	3.7	5.8	2.7	8.6	6.9

Source: National Accounts and Annual Abstract of Statistics

The figures in Table 18.1 do not adequately describe the changes that have occurred during the past twenty five years, and they are presented mainly as points of reference for the percentage distributions and the growth patterns to be presented below. However the employment statistics given in this table already indicate that the second half of the sixties and of the seventies were characterised by fast growth rates.

FIGURE 18.1
GDP AT FACTOR COST AT (1973) PRICES

Lm Millions
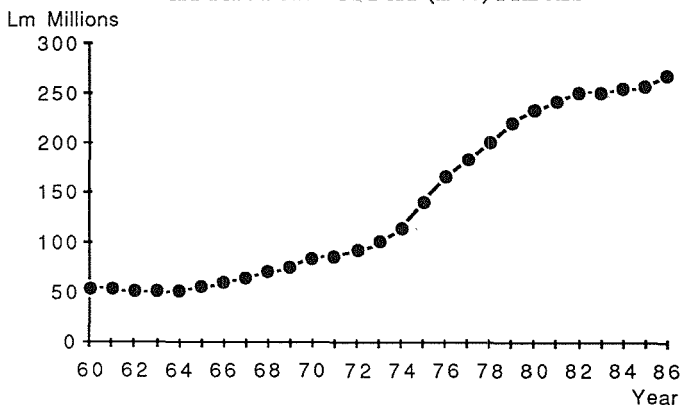
Figure 18.1 shows the pattern of change of GDP between 1960 and 1986. GDP is measured at factor cost, so as to exclude expenditure taxes, and at constant prices, so as to exclude price inflation. It can be seen that the only period of contraction as far as GDP is concerned was during the 1960-1964 sub-period. This period was characterised by a severe rundown of the British Military expenditure. The decline of GDP during this sub-period would have been much greater had it not been for the rapid increase in investment between 1960 and 1964 as part of the strategy contained in the 1959-1964 development plan for the Maltese islands.

FIGURE 18.2
GAINFUL EMPLOYMENT

Thousand
Persons
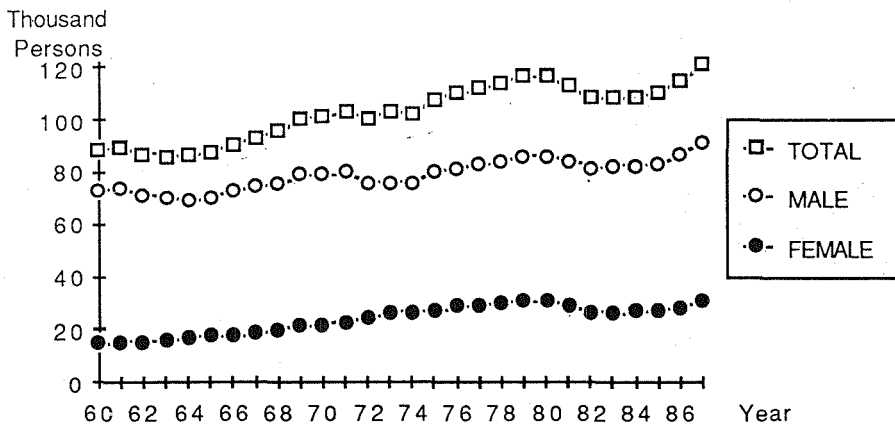
It can be seen from Figures 18.2 and 18.3 that during the 1960-1964 sub-period, employment decreased and emigration and unemployment reached very high rates. Figure 18.3 suggests that the rates of unemployment would have been much higher had emigration not be resorted to.

FIGURE 18.3
UNEMPLOYMENT AND EMIGRATION AS A
PERCENTAGE OF THE LABOUR FORCE

-●- UNEMPLOYMENT RATE   -O- EMIGRATION RATE

Another period during which the Maltese economy did not perform very well was the 1970-1974 sub-period. This sub-period cannot, strictly speaking, be described as a period of contraction, since GDP continued to grow, although at a slower rate than the 1965-1969 and 1975-1979 sub-periods.

Of interest is that although between 1970 and 1974, GDP tended to grow, the number of persons employed did not grow significantly, and had employment not been artificially created in government labour corps, the number of persons employed would have actually decreased.

Employment, as just described, is measured in persons. This variable may also be measured in man-hours , which in turn may be measured by multiplying the number of persons employed by the number of average yearly hours worked. During the 25 year period under consideration, average hours of work tended to decrease from about 47 hours per week in 1960 to 40 hours per week in 1977. Between 1970 and 1974 employment in manhours decreased, and this suggests that had working hours not been reduced during this sub-period, employment of persons could have actually decreased.

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During the same sub-period the rate of unemployment (and of emigration) tended to increase, again reflecting the relatively bad performance of the economy during this sub-period.

The 1980–1984 sub-period is perhaps the worst one as far as economic performance is concerned. The rate of growth if GDP was a very low one. Employment decreased at a very rapid rate – the fastest decline when all sub-periods are considered. Unemployment, on the other hand, increased reached very high rates. Had the labour force (i.e. the number of people willing to work) not decreased, the official unemployment figures would have been much higher during this period.

The other sub-periods, namely 1965–69 and 1975–79 were characterised by fast growth rates of GDP and employment, and by fast decreases in the rate of unemployment. The most rapid increase in GDP occurred between 1975 and 1979 and the fastest increase in employment occurred between 1965 and 1969. Probably the most important factors which accounted for the satisfactory performance of the Maltese economy during these sub-periods were the so-called construction boom during the second half of the sixties, and the rapid increase in tourism during the seventies. These two types of expenditures have relatively low import contents and therefore tend to give rise to relatively high multiplier effects.

The patterns of change shown in Figures 18.1, 18.2 and 18.3 therefore suggest that the Maltese economy experienced a cyclical pattern of growth, with relatively low rates of growth of GDP during the first half of the sixties, of the seventies and of the eighties, and relatively fast rates of growth of GDP in the second half of the sixties and of the seventies.

The Composition of Gross Domestic Product

The patterns of change just described have been accompanied by changes in the composition of GDP. Table 18.2 presents data on the contribution of major sectors during the sub-period under consideration.

It can be seen from Table 18.2 that the fastest growing sector was manufacturing, which accounted for just 17% in the early sixties and increased to about 33% during the late seventies. There was a small decline in the percentage share of this sector during the first half of the eighties. A further breakdown of this sector would indicate that the manufacturing sector itself experienced structural changes during the past twenty-five years, with the textile, clothing and machinery industries expanding their relative shares.

The British military establishments on the other hand, reduced their share of GDP from an average of 15% in the early sixties to zero during the eighties. As already explained, this was in line with the development strategy adopted in the Maltese development plans.

Table 18.2
Net Output of Broad Economic Sectors as a Percentage of GDP at Factor Cost.
Averages for 1960-1986 and for five-yearly sub-periods.

	1960-64	1965-69	1970-74	1975-79	1980-84	1960-86
Manufacturing	16.6	20.8	24.3	32.7	30.5	25.3
Construction/Quarrying	4.4	4.4	4.2	2.9	5.0	4.2
Market Services	33.7	33.3	30.4	30.9	34.3	32.7
Agr. & Fishing	7.3	7.2	7.2	5.3	4.1	6.1
Public Admin. & Entr.	17.9	19.8	21.8	19.8	18.7	19.5
British Forces	15.1	9.5	6.3	2.3	-	6.2
Property Income	5.0	5.0	5.8	6.1	7.4	6.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: National Accounts

FIGURE 18.4
SECTORAL VALUE ADDED AS A PERCENTAGE OF GDP

(1960-64)
5.0% 16.6%
15.1%
4.42%
17.9%
33.7%
7.3%

Manufacturing
Construction/ Quarrying
Market Services
Agriculture
Government
British Forces
Property Income

(1980-84)
7.4%
30.5%
18.7%
4.1%
5.0%
34.3%

The bottom pie chart, applicable to 1980-1984, shows that the manufacturing sector almost doubled its share of GDP when compared to the 1960-1964 sub period. The British Military services were completely phased out after 1979.

The changes in the shares of other economic sectors were not as dramatic as those pertaining to manufacturing and the British bases. Construction and quarrying contributed an average 4.2%, market services an average of 32.5% and the government sector an average of 19.6% of GDP. The share of agriculture and fishing averaged around 6.2% but tended to decrease during the 25 year period.

It should be recalled here that these are average changes, and do not adequately describe year to year fluctuations of these shares.

Table 18.3 shows the changing pattern of the distribution of employment in different sectors.

Table 18.3
Employment by Broad Economic Sectors and by Sex as a Percentage of Total Gainful Employment. Averages for 1960 - 1986 and for five-yearly sub-periods.

	1960-64	1965-69	1970-74	1975-79	1980-84	1960-86
Manufacturing	18.2	21.3	27.0	31.3	31.8	26.3
Construction/Quarrying	8.6	10.7	8.0	4.2	5.8	7.5
Market Services	28.4	29.8	30.4	30.8	32.7	30.6
Agr.& Fishing	8.9	7.3	6.3	6.4	6.4	6.7
Public Adm in. & Entr.	19.6	20.6	22.9	25.2	24.6	22.7
British Forces	16.2	10.3	5.3	2.1	-	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Male	81.8	79.6	76.0	74.0	75.0	77.3
Female	18.2	20.4	24.0	26.0	25.0	22.7

Source: Annual Abstract of Statistics

In general, with the notable exception of the public sector, the changes in employment shares reflected the changes in the shares of GDP. For example, the increasing share of the manufacturing output has increased employment in manufacturing from just over 18% of the gainfully occupied in the first half of the sixties to about 32% in the eighties.

Another finding presented in Table 18.3 is that female employment as a percentage of total gainful employment increased from just over 18% in the first half of the sixties to about 26% in the second half of the seventies. The percentage has decreased slightly during the eighties, reflecting the fact the most of the jobs lost since 1981 related to female employment.

As regards female employment, this tended to increase at a faster rate than male employment between 1960 and 1980. The bulk of the increases in female employment occurred in the manufacturing sector, mostly in the clothing, textile, and electrical machinery industries.

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FIGURE 18.5

SECTORAL EMPLOYMENT AS A PERCENTAGE OF TOTAL EMPLOYMENT

(1960-64)

16.2%   18.2%
8.6%
19.6%
8.9%   28.4%

Legend:
■ Manufacturing
▨ Construction/Quarrying
▨ Market Services
▨ Agriculture
☐ Government
▤ British Forces

(1980-84)

24.6%   31.8%
6.4%
5.8%
32.7%
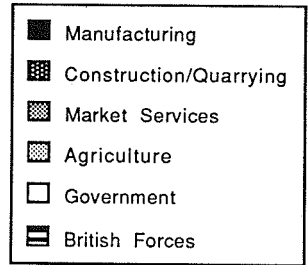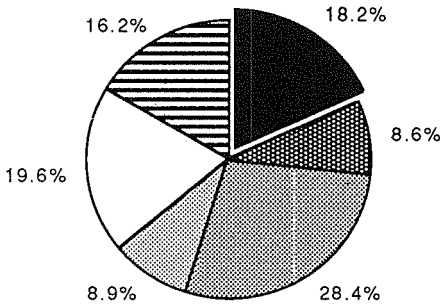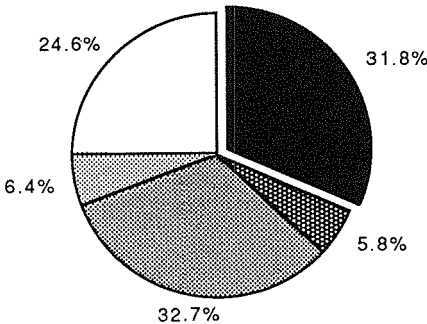
The two pie charts show that the sectoral distribution of employment by and large followed the sectoral distribution of value added as shown in figure 18.4. Again, the most striking difference between the 1960-64 and 1980-84 sub-periods is the expansion of manufacturing employment and the phasing out of the British military services.

Changes in Total Final Expenditure

Total final expenditure is composed of consumption, investment, exports and government current expenditure. These represent all the possible expenditures on goods and services produced by domestic firms and by the government. It can be divided in two, namely imports, and a domestic value-added content. The latter is also called the *Gross Domestic Product*.

Figure 18.6 gives the rate of change of total final expenditure and its components between 1960 and 1986. It can be seen that the expenditures shown in the figure tended to follow a cyclical pattern of change. In general, these tended to increase rapidly during the second half of the sixties and of the seventies, and to increase slowly or even decline during the other sub-period.

Figure 18.6 shows that in some instances, certain expenditures actually decreased. For example, exports tended to decline in real terms between

FIGURE 18.6
AGGREGATE EXPENDITURES AT CONSTANT (1973) PRICES
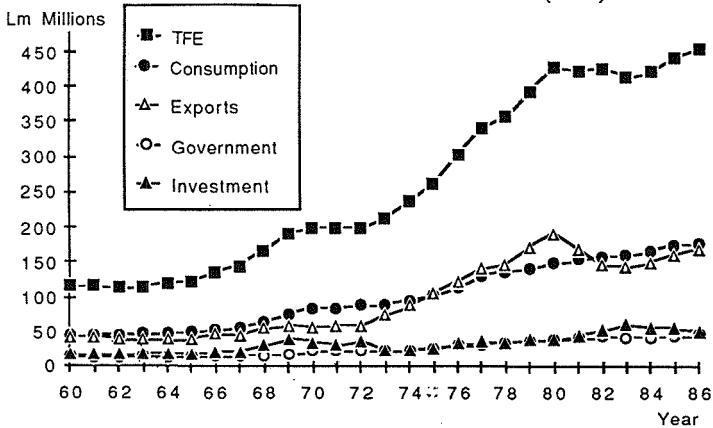
1960 and 1964 and between 1980 and 1984, whereas investment tended to decrease between 1970 and 1974. Total final expenditure as a whole has tended to decrease during the last sub-period only.

The pattern of change shown in Figure 18.6 therefore confirms that shown in the earlier figures, namely that the Maltese economy tended to perform better during the second half of the sixties and the seventies.

FIGURE 18.7
TOTAL FINAL EXPENDITURE, IMPORTS AND GDP
AT CONSTANT (1973) PRICES
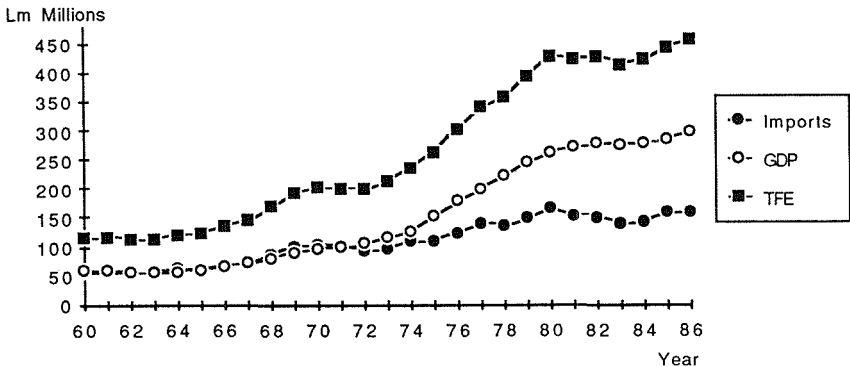
Between 1960 and 1986 the real average annual growth rate of GDP was faster than that of imports. This resulted in a decreasing share of imports and an increasing share of GDP in total final expenditure.

Figure 18.7 shows that the rates of change of imports measured in real terms, tended to grow at a faster rate than the total final expenditure during the sixties, and at a slower rate during the seventies and the eighties. This means that the import content of total final expenditure tended to decrease and the domestic value added content tneded to increase during the seventies and the eighties. This tendency has been brought about by the policy of import substitution and import controls which have been resorted to with increased intensity since the seventies. (See Chapter 2).

The Maltese Balance of Payments

The balance of payments gives a picture of a country's transactions with the rest of the world. It is usually divided into three parts, namely the current account, the capital account and official financing account.

The current account shows the balance between exports and imports of mechandise (called the trade gap), the balance between exports and imports of services, the inflows and outflows of foreign exchange resulting from foreign investments, and the inflows and outflows of foreign exchange resulting from private and government transfers.

The capital account of the balance of payments consists of inflows and outflows of foreign exchange arising from borrowing or lending, and from direct and portofolio investment from and to the rest of the world. These flows may be of a short or long-term nature. Changes in foreign exchange holdings by the monetary authorities are not included in the capital account.

FIGURE 18.8
BALANCE OF PAYMENTS
TRADE ON GOODS AND SERVICES
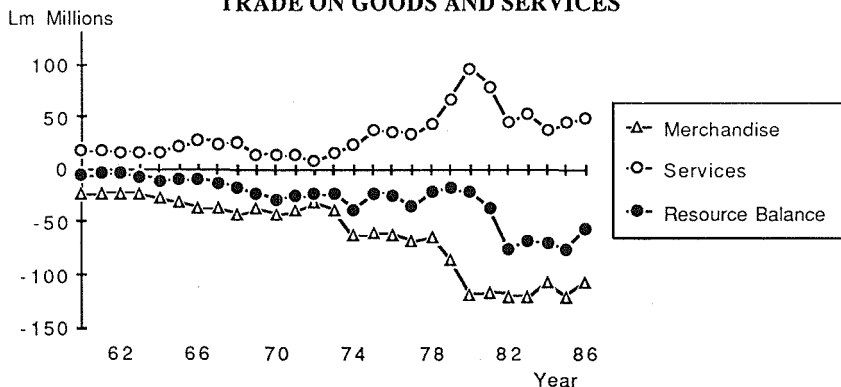
The official financing account shows how a deficit in the capital account and the current account, taken together, is financed by the monetary authorities by a reduction in official foreign exchange reserves. In the case of a surplus in the current and capital accounts, considered together, the official financing account would show that this amounts to an increase in official external reserves.

Table 18.4 gives a summary of the main entries in the balance of payments during the 1860 – 1986 period. The data is presented as five-yearly averages, with the exception of 1985-1986.

Briefly, Malta has always experienced a relatively large deficit in its merchandise trade, as shown by the trade gap in the table, and a positive but smaller surplus in its services trade. Thus the balance between exports and imports of goods and services taken together (the resource balance) was negative during all sub-periods.

Table 18.4
Some Statistics Pertaining to the Maltese Balance of Payments (Averages for Six Sub-Periods)

	1960-64	1965-69	1970-74	1975-79	1980-84	1985-1986
Merchandise Trade	-22.9	-27.1	-42.9	-61.4	-116.5	-113.3
Services Trade	16.6	13.3	15.9	37.8	62.2	47.6
Merchandise + Services	-6.3	-13.8	-27.0	-23.6	-54.3	65.7
Net Investment Income	3.7	5.2	8.6	17.1	41.4	33.4
Transfers	4.2	11.2	24.6	30.6	28.8	26.5
Balance on Current A/C	2.8	2.6	6.1	24.1	16.1	-5.4
Balance on Capital A/C	-1.9	3.7	8.8	18.0	18.6	-11.3

Source: National Accounts of the Maltese Islands

As explained in Chapter11,the bulk of merchandise exports consisted of clothing and textiles, and in recent years electrical machinery has had a major share also. As regards services, the most important sources were expenditures connected with the British forces bases during the sixties. However during the seventies and the eighties, with the development of the tourist industry, foreign travel and transportation have accounted for a large proportion of foreign exchange inflows from exported services.

The deficits which Malta experienced on trade in goods and services tended to be partially offset by investment income from abroad, the net inflows from which are shown in Table 18.4.

Another source of foreign exchange on current account are transfers which consist of remittances and pensions to households and foreign exchange grants to the Maltese government. Considering all these inflows and outflows of foreign exchange, the overall balance on curr nt account was generally a surplus, as shown in Table 18.4.

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FIGURE 18.9
BALANCE OF PAYMENTS ON CURRENT ACCOUNT

Lm Millions

Legend:
- -△- Transfers & Investment Income
- -●- Current Account
- -O- Resource Balance
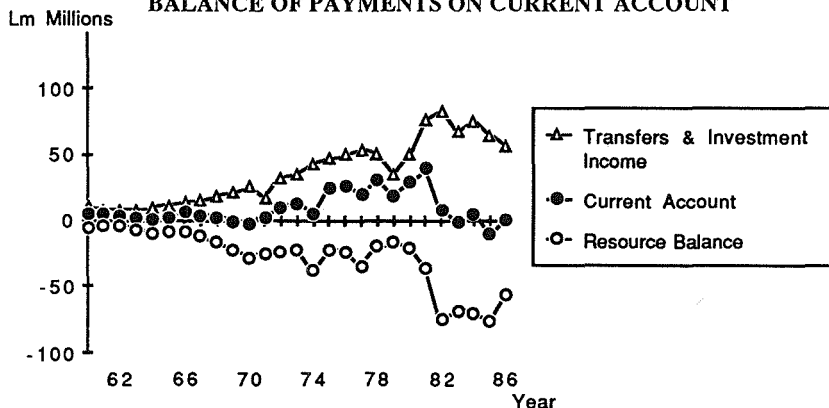
Figures 18.8 and 18.9 summarise the foreign exchange flows on current account of the balance of payments between 1960 and 1986. The consistent deficits on merchandise trade were only partially offset by the consistent surpluses on services trade, giving rise to a net deficit in the resource balance. Net inflows from transfers and investment income, however, brought about net positive balances on current account for most years.

With the exception of the first sub-period, the capital account has tended to be in surplus, indicating that, on average, capital inflows from abroad offset capital outflows to foreign countries. As noted, the outflows of foreign exchange do not include those of the official monetary authorities.

If we add the net surpluses (or deficits) of foreign exchange from the current account to the net surplus (or deficits) in the capital account we obtain the total net surplus (or deficits) in the balance of payments. This surplus represents a residual which is computed after all foreign exchange transactions, with the exception of official financing, are considered.

During any one year, this residual constitutes the net additions (or reductions) of foreign exchange holdings of the monetary authorities. As stated, in the case of a deficit, the amount of foreign currency reserves of the monetary authorities decrease in order to finance this deficit. In the case of a surplus, the foreign currency reserves of the monetary authorities increase by the amount of the surplus. As explained in Chapter 13, official external reserves of the monetary authorities have tended to grow rapidly during the seventies.

It can be concluded from Table 18.4 that Malta has in general enjoyed an overall surplus of foreign exchange inflows. A closer look at the balance of payments statistics would indicate that, in many years, this surplus would not have been possible without official transfers (grants) and

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borrowing from abroad by the government. This notwithstanding, Malta's external debt is not excessive by international standards. On the other hand, Malta's official external reserves as a ratio of Malta's import needs are rather high when compared with that of other countries.

Major Problems of the Maltese Economy

One disturbing feature of the Maltese economy is its size. It is very small, and has to rely on exports to produce on a sufficiently large scale, and on imports to make up for its lack of natural resources. The smallness of Malta's economy, therefore, renders it completely exposed to what happens abroad. This is why the international recession during the early eighties has had a very large impact on the Maltese economy.

Another weakness of the Maltese economy is that the import requirements tend to be too high particularly in the export oriented industries and in machinery investment. The import content of consumer expenditure is also rather high in Malta.

Malta's dependence on imports prompted the government to impose import controls in order to encourage import substitution. This policy brought about a marked reduction in the import content of total final expenditure, but the strict import controls in many instances encouraged inefficient production. Many manufacturing firms were only able to survive behind a wall of protection, and this has given rise to inferior quality products, and to an inefficient use of human, physical and financial resources.

An area of concern is that a very high percentage of exported goods consist of textiles and clothing. In this regard, the advantages of specialisation arising from concentration of a few products has to be weighed against the disadvantages of having too many eggs in one basket.

A related problem is that a very large percentage of exported services are connected with tourism. Tourism has had an important beneficial effect on the Maltese economy, in terms of foreign exchange earnings and employment. However, past experience has shown that excessive reliance on this type of service presents a danger in that the tourist industry tends to be quite volatile, depending as it does on the whims and fancies (including political attitudes) of foreign travellers.

As regards exports in general, the major recurrent problem is the need to maintain competitivity vis-a-vis foreign countries. This touches upon the question of exchange rate policy. As is well known, Malta has in the past adopted a policy of tying the Maltese lira to relatively strong foreign currencies. This policy has had beneficial as well as adverse effects on Malta's economy. It has helped to contain the disadvantages associated

with imported inflation. But at the same time, it has adversely affected export competitiveness.

However, everything considered, the Maltese economy did not fare very badly during the twenty seven years covered in this chapter. Am important conclusion that emerges from the trends presented above is that attempts by successive Maltese governments to expand local production, generate more employment opportunities, and to phase out the traditional dependence on British military expenditure were by and large successful.

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THE
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A Macroeconomic Analysis