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TRENDS IN THE ECONOMIC
GEOGRAPHY OF MALTA
SINCE 1800

BY

C. A. CHARLTON, B.A. (DUNELM)

A Thesis presented for the Degree of
Doctor of Philosophy, in the University
of Durham.

SEPTEMBER 1960

The Department of Geography,
The Durham Colleges in the University of Durham.
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The writer approached the subject of this Thesis with no previous knowledge of the topic, nor of how much material there existed about it. The plan was to examine as many aspects of the Maltese economy as possible throughout the period.

The initial task was therefore to find out how much information already existed on economic matters concerning Malta. This presented several problems. Written works about Malta are not readily available, and it is usually necessary to visit the collection in order to carry out research. The writer therefore spent a considerable amount of time in the Library of the Royal Commonwealth Society (which has the best Malta collection in Britain) and in the Public Libraries of Malta in Valletta and Victoria (Gozo). The collections in these libraries consist of published official works (e.g. the Blue Books, Statistical Abstracts, Census Reports and Departmental Reports etc.) and other published material such as academic studies of various aspects of Malta, and travellers tales, guide-books, etc.
A valuable source was found to be the Colonial Office Despatches relating to Malta, which are made available at the Public Records Office in London. These are kept in chronological order, and in order to search for information concerning particular periods of interest, it was necessary to sort through and read every despatch.

In Malta, a further potential source of useful material were the collections of records kept by individual Government Departments. In most cases no serious attempt had been made to preserve the records in any orderly state, but they were made available for study, which was a question of sorting through piles of what could occasionally be described as assorted jumble.

The greatest disadvantage of this state of affairs, especially during the initial stages of the research, was the amount of time spent just searching - methodically searching rooms and cupboards and shelves for what might be there.

A further problem was the collation and evaluation of such material as existed. A large amount of material does exist, but there is a lack of what may be termed reliable statistical data. In many cases there were no statistics at all, and many published statistics were unreliable estimates.

A case in point is those tables which appeared
annually in the Blue Book giving the area of each village devoted to different crops. The writer was told that these figures were estimates sent in by the village policemen, who merely walked around and compared the areas with what they remembered of the previous year.

The state of present-day statistics is not always much better. There is an imposing Annual Statistical Abstract containing many tables, which dates back to 1942. Departmental Reports and special Reports are extant for earlier years. Unfortunately, however, the statistical presentation is an attempt to copy the British system, but without the necessary civil machinery to make them accurate. Figures are still often, at best, estimates, and they are often incomplete. There is still a tremendous distrust of officialdom in Malta and a resultant unwillingness to divulge information, especially on economic matters. The writer himself had experience of information which was deliberately misleading, whilst carrying out an investigation for the Maltese Government, and he has heard civil servants confess that often statistical enumerators are unsuccessful in their attempts to collect data.

In general, therefore, written information in the form of statistics has been treated with caution. Much has been deliberately ignored, or merely used as a pointer to truth.
The statistics which have been accepted as being most reliable are population figures published in the Census Reports. Because of the nature of his subject, the writer was also interested in the occupational statistics published in the Census Reports. More is said about the unreliability of these figures at the beginning of Section D Chapter 3. The greatest value of these occupational statistics is obtained by making relative rather than absolute use of them, i.e., comparisons between census years, when differences have been taken as an indication of changes.

After making as complete a study as possible of the available written material, both as accounts and statistics, the writer emerged with certain ideas concerning important economic trends in Malta which he then attempted to corroborate. This was done wherever possible by making personal observations in the field, and where this was not possible by making the fullest use of talks and discussions with many people.

In this respect, the period of fourteen months (two winters and a summer) which the writer spent in Malta between 1955 and 1957 was invaluable. By seeking out and talking to the oldest people on the Island, new opinions were formed of significant events and changes as early as 1870. This "oral evidence" was no less important in forming a background for the interpretation and understanding
of the present-day situation. This background of understanding was built up in a variety of ways. There were interviews with the heads of Government Departments, and, through an interpreter, with peasant farmers; there were innumerable conversations with Maltese friends from all walks of life - ranging from serious discussions or friendly gossip.

All this gradually built up in the writer an attitude of mind towards Malta and the Maltese which could be brought to bear on present-day social, economic and political problems, and on problems of historical interpretation.

Because statistics are so unreliable, it is important to have this background experience in order to make judgements about Malta. The writer firmly believes that such experience can only come through living there, and respectfully suggests that it is a far better way of understanding Malta than the traditional methods which have been used in attempts to solve the problems of the Island, and which have often entailed no more than flying visits.

In assessing the important factors relating to his subject, the writer was fortunate in being one member of a research team. Each member followed his own line of investigation, but there was a pooling of resources so that relevant information was passed along. There was
also the constant opportunity to consult informed opinion.

The reason for the choice of period.

The reason why 1800 was selected as the commencement of the period to be studied is the result of historical events.

In 1800, with the surrender of the French garrison in Malta (see Section B), there began the era of British rule and influence in Malta which has lasted to the present time. The year 1800 may be said, therefore, to have ushered in the most significant period in the history of Malta.

A note on Maltese words.

Only recently has there been an accepted transcription of the Maltese language, and it is still common to find different spellings of the same word.

In the spelling of place names, the writer has endeavoured always to use the new correct version, although this may differ occasionally from the versions which appear on the map in the back folder, and in other references.

N.B. Valletta, the capital, is rarely referred to in Malta by that name, except in Gozo. In Malta it is referred to as "il-Belt" (the city), but in Gozo, "il-Belt" would refer to the Gozitan capital, Rabat.
Chapter 2. The physical characteristics of the Maltese Islands

The Maltese Islands form a small archipelago in the Central Mediterranean, lying between Sicily and North Africa, about 60 miles from Sicily, and 180 miles from the African mainland. There are two main islands, Malta and Gozo, and a number of minor islets, only one of which, Comino, is inhabited. The total area of the islands amounts to 122 square miles (Malta 95, Gozo 26, and Comino 1).

The Islands lie along a N.W.-S.E. axis, Gozo lying to the N.W. of Malta, about 5 miles away, with Comino approximately mid-way between.

The Islands form one major geological and structural unit. They are composed of Eocene series-limestones, with intervening greensands and clays, and they have all been subjected to considerable faulting. Despite this faulting, the rocks remain horizontally bedded over much of the area. Five main series are distinguished, namely (in ascending order):

* See figure 1, and also the map in the folder at the back of the book.
Differential erosion of these horizontal beds has tended to the formation of flat-topped relief features, the uplands capped with Upper Coralline Limestone. These hills are bounded generally by steep slopes, formed by the quicker erosion of the underlying sands and clays. These fall to lower plateaux formed on the Globigerina Limestone.

In Malta, the Upper Coralline, Greensand and Blue Clay have been completely removed from the eastern half of the island, which is a low, undulating Globigerina Limestone plateau, dissected by gorges. The upper series remain in the west, where the Upper Coralline Plateau forms the highest part of the islands, rising over 800 ft. above sea level. In Gozo, the remnants of the extremely dissected Upper Coralline form the caps of a series of buttes and mesas, which, with their flat tops and steep clay slopes, give to the relief a variety which is not found in Malta, except in some of the valleys of the west coast. Since the greensand and clay generally outcrop only in narrow bands around the Upper Coralline, most of the land surface is composed of limestone.
The relief pattern formed by the erosion of horizontally bedded rocks has been affected by faulting, especially in the N.W. of Malta. Faulting has taken place along two main axes, N.W.-S.E., and N.E.-S.W. It is responsible for tilting the islands towards the S.E., and it has brought about the series of parallel N.E.-S.W. ridges and valleys which make up N.W. Malta. The S.W. edge of this region is marked by a fault scarp known as the Victoria Lines, the most prominent feature in the islands. This follows the so-called "Great Fault", which runs right across Malta from Madalena Bay in the east to Form ir-Rih in the west. There is a similar, though not so prominent "Great Fault" in Gozo, running from Mgarr ir-Xini to id-Dwejra. Between these two major fault zones is a disturbed region of horst and graben, forming the ridges of Comino, Marfa, Mellieha, Bajda and Wardija, and the sea-inlets of the N. and S. Comino Channels, Mellieha Bay, St. Paul’s Bay and Salina Bay. It is in this area that the greatest thickness of Upper Coralline Limestone is to be found, preserved by down faulting. In the eastern part of the island, Grand Harbour, Marsamxett and Marsaskala Bay are due to similar faulting and rias-drowning, and some of the interior valleys follow similar lines of structural weaknesses.

The predominant surface features are those associated
with limestone weathering. Where soil development has been inhibited, the limestone exhibits many "karst" features, and on the Upper Coralline, there are large areas of limestone paving and lapies. Similar features are also present on the steep sides of limestone gorges. These valleys are dry except during winter, when they occasionally carry flood water, and except for a few spring-fed depressions on the west coast. They are the relics of a wetter climatic period.

The Islands have in the main a typical "Mediterranean" climate. The mean annual temperature is $66^\circ F.$, and mean monthly temperatures range from $53^\circ F.$ in January to $80^\circ F.$ in July. Frosts are rare, and diurnal temperature ranges are small. Rainfall is variable (recorded variation 3" to 39"), the average being about 20" in Malta, although Gozo usually has an inch or so more. This rainfall is confined to the winter months of September to April, and usually falls in heavy showers. Water availability is of prime economic importance to agriculture, and in this respect, the inter-relationship between climate and geology is very significant. Much storm rain is lost immediately as surface run-off, and because of the porous nature of the rocks, much sinks underground. Any rain which remains in the thin covering of soil is liable to be lost by evaporation. The geological structure of the islands
has brought about the formation of two major water bodies (or water-tables as they are termed in Malta), one at sea-level (which tends to be saline), and another in the Upper Coralline Limestone. The existence of the Upper Coralline water-table is due to the presence beneath it of the impervious Blue Clay horizon. Except where the Upper Coralline is down-faulted to sea-level, as in N.W. Malta, the water in the upper table is fresh.

Owing to a combination of climatic and geological factors, soil formation in Malta is slow. Furthermore, it is liable to interruption by erosion, and therefore soil conservation by means of terracing has to be practised. Because of the predominance of limestones at the surface, most of the soils are limestone-derived, varying from red soils of "terra rossa" type to almost white limestone marls - dry rendzinas. Clay soils occur around the Blue Clay outcrops, and around these marginal zones there are admixtures of greensand and limestone. Soils are nearly everywhere thin (a few inches only) although deeper soils are to be found in a few alluvial areas - around the Marsa, Mistra, Mied tal-Pvales, and Burmarrad. The close relationship between soil and parent rock is not always apparent, because many fields have soils artificially mixed by man. So important is soil to the Maltese farmer that the buying of soil has been common practice, as has
the "making" of fields from loads of soil collected from various small pockets.

From this brief sketch of the physical environment, the major elements which affect Maltese life appear. First, the absence of surface water - indeed, the general shortage of water, imposes especial limitations on economic activity. Secondly, the regions which are topographically most attractive are clearly defined, in Malta as being the centre and east, and in Gozo, the centre. Settlement away from these areas has resulted partly from the seeking of refuge, and partly from recent extension following the establishment of security. Thirdly, in Malta, good natural harbours backed by the most easily worked (but not necessarily the richest) farmland, have made possible the seizing of the opportunities for maritime activity which have been presented by the general position of the Islands.

Chapter 3. The main themes of the Thesis.

In this Thesis, two major economic trends are examined. These two trends are considered as fundamental to any understanding of the Maltese economy. They are:

(i) the development of the Maltese economy from one of considerable dependence on outside sources of wealth at the end of the eighteenth century, to one of almost complete dependence at the present time;

(ii) the progressive concentration of economic activity
in the harbour area around Valletta, with the rest of the island becoming subsidiary to this nucleus. This second trend is partly, but not completely, related to the first trend.

The most important trend, the one with the most far-reaching consequences, has been the degeneration of the Islands' economy into a state of almost complete dependence on external sources of wealth. In 1956, a deficit in visible trade of 95% of the value of retained imports was balanced by a surplus in invisible trade, of which 84% was made up of expenditure by the British Armed Services(1). The economic situation at the end of the eighteenth century was much better than this. Few figures are available, but with a much smaller population, and relatively greater local production, the economy seems to have been less un-balanced than it is now. The independence of the economy has declined progressively during the period of British sovereignty, although the decline has been masked occasionally by boom periods of varying duration.

The second trend deals with the internal changes which took place during the same period, partly as a result of the afore mentioned changed. In this section too are examined the regional effects which economic changes have brought about. Economic development has been irregular,
and usually limited to the harbour area, so that there are, and have always been, considerable regional differences.

There is a great physical similarity between Malta and Gozo. This has been partly shown in Chapter 2. They are both small islands, poor in physical resources.

Despite the close proximity of the sea, and the fact that there are no land communications with other societies, the main attitude of the Maltese and Gozitans towards the sea has been to turn their backs on it. The tradition in the Maltese Islands is that of farmer-folk rather than that of fishermen. Each island has its traditional fishing settlements, but the main object of the whole community was to win a living from the land. Rather than being a source of food and income, the sea was more often the bringer of fear and depredation in the form of raiders from the fiercer, more maritime-minded communities of the North African coast. The economy in which the pattern and function of settlement grew was agricultural. In both Malta and Gozo the ancient capitals were well fortified towns on strategic heights in the geometric centre of the islands, as far away from the sea as possible, the main idea being to defend and maintain the agricultural community.

In each island too, apart from the small fishing
settlements scattered around the shores in favourable sheltered spots, one harbour developed as a main port of contact. In Gozo, Mgarr developed immediately opposite the straits from Malta. Mgarr remains as Gozo's only port of contact (despite the fact that there are better natural sites for harbours at Xlendi and Marsalforn) because Gozo has always done things and received things through Malta. Mgarr has developed only by the increase in the frequency of communication between the islands.

Malta's port of contact developed around the magnificent natural harbours flanking the promontary of ix-Xiberras (the site of Valletta), especially around the creeks of Grand Harbour.

In these basic respects, the islands were then similar. In each, there developed an agricultural community, together with small fishing hamlets, and a port of contact. But, whereas in Gozo, this pattern has remained largely unchanged (merely added to and filled in by a growing population), in Malta it has given way to a new pattern developed around the port of contact. This pattern was superimposed on the old one by a "foreign" community. In Gozo, Rabat (Victoria) remains the most important settlement, with Mgarr still a small harbour, but in Malta, the old capital of Mdina has lost nearly all its political and economic functions, and most of its social function, to Valletta.
The dissimilarity of development began as soon as Malta's potential strategic value was recognised. It began with the arrival of the Knights of St. John in 1530. The reason they chose Malta as their centre rather than Gozo was partly that Malta was the larger island, but mainly that Malta possessed such a magnificent harbour. The presence of Grand Harbour in Malta was to be the main factor influencing Maltese history for four hundred years from that time, and because interest in the Islands was so narrowly concentrated, Gozo became a back-water.

The contacts of the Knights with Europe brought more activity to the harbours, and a galley port was developed in what is now Dockyard Creek. After the siege of 1565 Valletta was built, and after 1569 became the capital. This was the first major change, and it was a change effected by outsiders. Around this new capital developed a community serving the Knights and their retinue, divorced to a large extent from the other, older, community which still looked towards Mdina.

Malta has continued along the lines of this pattern. Even now there is a basic dichotomy which is socially very real. After the period of the Knights, British use of Malta's strategic position encouraged the further development of the harbour area. Improvement in social conditions and increased wealth brought an unprecedented growth in population, which has become more and more
concentrated in the harbour area, although the villages have also grown considerably.

The population nucleus in and around the harbour area has tended to become more pronounced, and the increase in the economic functions of the area has resulted in more and more of the rural hinterland becoming subsidiary.

Malta and Gozo became dissimilar as soon as the especial advantages of Malta caused the quicker development of the larger island. Gozo's position as a backwater meant that changes generally came later, and in a slightly modified form. In many respects, the differences have been mainly in degree, but the process has been continuing for so long now that many of the aspects of Gozitan life are completely different in kind from the Maltese counterpart(2). For that reason, this Thesis applies exclusively to the island of Malta, except where otherwise stated in the text.
SECTION B

Maltese Economy and Society at the beginning of the nineteenth century.

The beginning of the 19th century was a time of transition of considerable importance for Malta. It was a period of important political developments which were to have far-reaching social and economic consequences, for Malta passed from the control of the Knights of the Order of St. John who had ruled the island since 1530, first into French and finally into British hands.

The Order had degenerated considerably by the end of the 18th century. During the 16th and 17th centuries the Order had been a power of great strength in the Mediterranean. In its function as "a miniature League of Christian Nations banded against Islam"(1), it had received support from all the European powers, who recognised the importance of Malta as a bulwark against Turkish expansion in the Mediterranean, but with the disappearance of its "raison d'être", the Order became an anachronism. By the end of the 18th century it was existing on "the tolerance and the affection extended to it by more powerful States, and not by virtue of its own strength"(2). With the decline in its naval activities, the Order became more extravagant in its private spending - its navy became more magnificent as it became less effective, and in the latter
part of the 18th century a traveller described it as "one of those ancient institutions which had once served to render the brotherhood illustrious but which now only attested its selfishness and decay"(3). By the time they left Malta in 1798, the lavish spending of the Knights and their mismanagement had almost ruined the finances of the island. At the end, they were not at all popular with the Maltese.

The final downfall of the Order in Malta was caused by a new awareness amongst the European powers of Malta's strategic potential as a naval base in the Mediterranean.

French affairs first menaced Malta in 1789 when the new revolutionary government nationalised all Church lands in France, and considered dealing similarly with the Order's French properties. In fact, this did not happen at once, because the French were anxious to remain friendly with Malta at the time. The French element had become dominant in the Order, and French trade with the Levant was almost all passing through Malta.

Most of the French Knights were naturally against the Revolution, and indeed, many of them had fought against it. This imposed a severe strain on Franco-Maltese relations, but commercial interests prevented a break until 1792, when all the Order's estates and revenues in France were confiscated.
At this stage, Russia saw an opportunity of gaining a foothold in the Mediterranean. The Tsar realised that without the French contribution to its income, the Order would soon be in financial difficulties. He offered to found a "langue" for Russian nobles, and in return, he wished to become the Protector of the Order. This move on the part of the Russians elevated the whole business into the sphere of European politics. Britain, who wished to supplant France and anticipate Russian interest in the Mediterranean, also offered her protection to the Order, and the Grand Master thus found himself in a very strong position.

A new Grand Master, de Hompesch, elected in 1797, decided to accept the Russian offer, with the result that France, having already conquered Italy, and expanding eastwards towards Egypt, took possession of Malta on the 10th May, 1798. The Knights put up no resistance and the French were welcomed by the Maltese.

The French popularity was very short-lived, for the garrison's behaviour antagonised the Maltese, who revolted after only three months. An appeal to the King of Naples for help brought a quick response, and the British fleet under Nelson, who had just defeated Napoleon at Abukir, provided further assistance. The French garrison surrendered in 1800.
The Treaty of Amiens of 1802 brought a truce in the war between England and France, during which the future of Malta was considered. Initial plans involved the return of the Order, but the Maltese realised that since the Order was so powerless, this would inevitably mean the return of the French, and they became increasingly eager to place themselves permanently in British power. Both Britain and France were by now well aware of Malta's strategic importance, and war was resumed largely on account of the Malta question. The Congress of Vienna in 1815, which ratified the Treaty of Paris recognised that Malta was a British possession.

The Maltese themselves had accepted the British long before the final peace settlement. During the fourteen years between 1800 and 1814, the Islands had been administered by Captain Alexander Ball, nominally on behalf of the King of Naples, but effectively for Britain. Moreover, during the war, the Maltese had enjoyed a period of great prosperity in trade, for Malta became the centre of commerce between Britain and a blockaded Europe. To the Maltese, this augured well for the future, and there was no opposition from them when Malta was declared British territory.

The changes of government meant that considerable social and economic re-adjustments had to be made by the
Maltese. Basically this meant a change "from the narrow system and restricted interests of the Knights of St. John to the novel methods and wider horizons of their French and British overlords" (1).

So long as the Knights remained politically important in the Mediterranean, they received the support of interested powers in Europe, but they retained their independence of action. Under the Knights, Malta was a political, economic and cultural unit, if only a small one. Entry into the British Empire meant a certain loss of political and cultural status. As a colony of a power which was expanding politically and economically in the Middle East, Malta became more deeply involved in world affairs. Henceforth, Malta was to be at war whenever Britain was at war, and her economic wealth came to depend more and more on the decisions of the colonial administrators of a "foreign" power.

Furthermore, because Malta had been the headquarters of the Order, the Knights had extended their influence through all aspects of Maltese life, - they organised the water supply, initiated public works, and financed hospitals, charities and education. After nearly three hundred years, the Maltese had become accustomed to this "paternal system" of government, and they were to take hardly, at first, to the British system which tended to "laissez faire". Even as late as 1851, Governor O'Ferrall
commented unfavourably on the lack of initiative amongst the Maltese, which he claimed to be a result of the absolute rule of the Order(5).

The fundamental changes which came about in the nature of the Maltese economy at this period were only partly the result of political changes. During the 18th century, Malta possessed two major sources of external wealth. The first of these was the income from the estates of the Order in Europe, notably in France. Much of this income was spent to the local Maltese benefit as public works, charities, pensions, etc., and on the maintenance of the Order itself. At the end of the Knights administration, it has been estimated(6) that the sum spent locally amounted to about £180,000 per annum (or about 30/- to 40/- per head of population).

The second major source of income was cotton. In 1801, Ball estimated that the annual value of the export trade in cotton twist and cotton goods was about £500,000. This was particularly important because the income from these exports filtered right down through the population. Much of the wealth derived from the Knights benefited only a small proportion of the population, mainly in and around Valletta, where most of their activity took place,
but the cotton industry was one which had its branches in all
classes of the population throughout most of the island.
Not only was cotton the most valuable export, but it was
also the most important cash crop of the Maltese farmer, and
spinning and weaving were the stock household trades of the
poorer classes in both town and country.

Within the space of a few years, both these sources of
income were lost. In 1792, the Order's valuable estates
in France were confiscated by the revolutionary government,
and in 1798, the Knights themselves were expelled from
Malta. In 1800, the Spanish government prohibited all
imports of cotton, and as Spain had been Malta's major
market, the cotton industry was dealt a fatal blow. A few
attempts were made to seek markets elsewhere, but with
little permanent success, and the decline was never arrested.

The effects of these economic changes were not
immediately apparent, because during the Napoleonic Wars
Malta experienced a boom of considerable magnitude. High
prices for grain compensated the farmers for the fall in
value of their cotton crops, and commerce thrived as never
before, with Malta as the centre of trade between Britain
and a blockaded Europe. Neither was the expenditure of
the Knights missed at first, for the British government had
spent £433,000 in the island by 1813, and the spending of
British forces and other foreigners (estimated at 20,000
in 1807) must have added considerably to this\(^7\). It was not until after the abnormal years of the Napoleonic Wars that the paucity of Malta's natural resources vis-a-vis its population was brought out clearly.

The beneficial economic effects of the presence of the Knights in Malta was reflected by a considerable increase in population. The population of the Islands when the Knights arrived in 1530 was between 10,000 and 15,000. A Commission which Grand Master L'Isle Adam sent to investigate conditions estimated it as 12,000\(^8\). By the end of the 18th century this population had increased to about 90,000, about 80,000 in Malta and 10,000 in Gozo\(^9\). Most of this growth took place during the 17th and 18th centuries consequent on an increase in wealth and security as the Turkish menace retreated.

Before the arrival of the Knights, the most important settlement in Malta had been Mdina, the capital, occupying a defensive site in the centre of the island. Away from Mdina (and its suburb Rabat) the most important village was Zebbug, only two miles away. An important shift in population distribution took place during the rule of the Order partly as a result of the deliberate development of the harbour area, and partly because the
increase in security allowed of the expansion into areas which had previously been considered too dangerously exposed to raids from the sea. The Royal Commission of 1812 noted that a considerable quantity of land still remained unoccupied and uncultivated in the south - a reminder of fear of Barbary Corsairs in times past. In this way, the traditional settlement pattern, which still exists today in Gozo, was disturbed in Malta with the arrival of the Knights in the 16th century and a new pattern was superimposed. The new pattern grew up around a society which looked outside Malta, and which centred on a port.

Even in 1800, there was still ample evidence in the countryside of abandoned and derelict villages dating from the attacks of Corsairs and Turks (Boisgelin(10) mentions "Hal Thiesal, Aaras, Hal Caprar, Hal Tabuni, Hal Spital, Hal Said, Hal charrat and Hal Tuin") but by this time the populations had grown to about 80,000, of which nearly half lived in the towns flanking the Grand Harbour. The villages of the eastern plateau had also grown considerably.

The progressive development of Valletta and the harbour area under the Knights led to the re-orientation of Maltese social life and economic effort. The increased foreign contacts and increases in trade brought about a quickening of the economic tempo. The island's economy
became more commercial (the Grand Masters even struck their own coinage) and there is little doubt that the growing urban population acted as an economic catalyst for the agricultural community.

The deliberate development by the Knights of the political, social and economic functions of Valletta, their own capital, led to the decline of Mdina, the old Maltese capital. The persistence of Maltese traditions in the face of foreign cultures, especially in the rural community, has enabled Mdina to retain some measure of social importance even today, and as late as the beginning of the 19th century it still had political and legal functions. When the main administrative centre moved to Valletta by design of the Order, Mdina retained certain legal powers over a limited area. This area consisted of the parishes of Mdina, Dingli, Zebug, Siggiewi, Attard, Lija and Musta (i.e. the core of the "old Malta"). The Governor of Mdina (bakum in Maltese) who was selected by the Grand Master had jurisdiction in this area, and separate law courts existed in it until 1814, when the first British Governor became head of the administration.

The growth of population which occurred under the Knights outstripped local resources of food, and by the end of the 18th century the islands were producing grain
sufficient for only one-third of the year. The providing of grain for the population was thus of prime importance. This was done by means of a monopoly granted to an old institution known as the "Universita". Even before the arrival of the Order, one of the functions of the "Consiglio Popolare del' Universita" had been to arrange supplies of corn when necessary, and under the Knights, the Universita became a "massa frumentaria". It became a very important financial institution, and considerable sums of local capital were invested in it. The purpose of the monopoly was to maintain supplies of cheap corn, and to ensure that prices in Malta did not vary very much. At the beginning, this system worked very well. Sometimes the Universita lost, on the whole it gained, but flour in Malta was always cheaper than in surrounding countries\(^{(11)}\), and those who invested money were always repaid promptly and with interest. After 1740, however, the system began to break down. Grand Master Pinto sold, at 15 scudis per salm wheat which had cost 60, the Treasury began to borrow from the Universita, and when the French came, they seized all money and corn remaining with the Universita, and then made it buy provisions on credit. When Captain Ball took over the administration the Universita was bankrupt, and there was a "labyrinth of claims" against it amounting to £156,739\(^{(12)}\).
Although the financial side of the organisation eventually broke down, the basic idea behind it was sound, and such an institution very necessary. When the British arrived they too were faced with the problem of feeding a population too large for local resources, and in 1812 the Royal Commissioners recommended that a corn monopoly such as the Universita, which could buy up corn, store it in "fosse", and so maintain relatively cheap supplies, was suitable for a country the size of Malta. Moreover Malta's sea communications were excellent, and when, after the harvest, the amount of corn to be imported was known, the Universita was able to select the cheapest of several sources.

By the end of the 18th century, Malta appeared to be prosperous, although supporting a population considerably larger than physical resources apparently warranted. This had come about mainly through a series of changes in the island's economy, which were ultimately the result of the presence of the Order. Not only had the population grown, and increased its standard of living, but it had also changed its character. A new element had been added which was eventually to dominate Maltese society without ever merging completely with the older elements. Around the Knights in Valletta there had grown up a community depending for its existence on outside wealth.
This urban community looked away from Malta whereas the "old Malta" represented by the old villages was agricultural and parochial in outlook. The urban community came to acquire economic and social standards different from the rest of the island, and came to dissociate itself more and more from the rural community. This dichotomy had become apparent by the 18th century and has persisted as a major feature of the community up to the present time.

After the boom period of the Napoleonic Wars, the British had to find new answers to the problems posed by a Maltese population which had outgrown local resources. The two major sources of income in the 18th century, the cotton industry and the wealth of the Order, had both disappeared.

The loss of the cotton trade with Spain meant more to Malta than the necessity for finding a new cash crop for the farmers. The cotton industry in its various stages had been so much a part of Maltese internal economic life that many people other than farmers were deprived of income. No figures are available for the total numbers employed in the industry at its peak at the end of the 18th century but even in 1851, when the industry had seen nearly fifty years of decline, there were 10,761 people engaged in it (17.6% of the gainfully employed population)
in Malta alone\(^\text{13}\), and in 1836, the Royal Commissioners estimated that over 7,000 women were still spinning cotton yarn in rural Malta\(^\text{14}\). This evidence of the way the cotton industry persisted gives some indication of its contemporary and earlier importance, and of the failure to find any replacement for it during its decline. The industry was officially supported for half a century as a social measure, and not until a new phase in Maltese economic life began with the development of the naval dockyard did it finally disappear.

In the agricultural sector, the Commissioners of 1812 noted that farmers were already being encouraged to plant potatoes to replace the cotton crop. This crop replacement was eventually generally adopted in Malta, although at first there was considerable opposition, as potatoes were considered unwholesome. Eventually they became, and have remained, the principal cash crop of the island, although they never became really popular in Gozo where the cotton industry was slower in decaying.

Changes on the manufacturing side were less rapid and are best considered separately (Section D, Chapter 4).

The Maltese hoped that British spending in the islands would compensate for the loss of the Knights' revenues. At the beginning, British spending was at a fairly high level, and the large number of foreigners,
services personnel and merchants, must have contributed a considerable sum to Maltese income. It slackened after the war period, and the Maltese economy stagnated until the outbreak of the Crimean war, and the growing importance of the "Eastern Question", caused Britain to hasten the development of the island. It was not until the 1850's that British expenditure in Malta exceeded that of the extravagant latter years of the Knights.

There were high hopes in Malta that commerce would thrive under the British. The Knights had not been very interested in developing trade, and the trade boom during the Napoleonic Wars, which came as the result of British protection, gave the Maltese an inflated and incorrect notion of Malta's commercial value.

The Maltese were quick to seize advantage of the war boom, and the trade which passed through the island was kept largely in Anglo-Maltese hands. After the war, the Maltese continued to hope for commercial prosperity, and much of the depression was ascribed by Maltese to the "laissez faire" attitude of British Colonial policy, and to the retention of awkward restrictions on trade. The result was that it was the commercial interests which were behind the political agitations of the 1830's. The various petitions were backed and financed by business
houses in Malta, and supported by commercial interests in Britain.

The strength of popular agreement to Malta's becoming a British Colony in 1814 must have been based to a great extent on the boom which followed the British arrival. Significant comments are to be found at the beginning of the 1812 Report of the Royal Commissioners:

"...the great mass and body of the People were happy and contented; warm in their professions of attachment to Great Britain, and thriving in wealth and population to a degree almost unprecedented".

"The Commercial part of the Community we found daily increasing in prosperity and opulence; fully sensible of the peculiar advantages derived from the protection of Great Britain; anxious only that this protection shall in no future occasion be withdrawn, and that the permanent annexation of Malta to the British Crown may constitute the pledge of its future security and happiness".

The British inherited a system of public finance which had been badly mismanaged by the last few Grand Masters, and further disturbed by the French. The finances of the island had still not been put straight by 1812, although there was a budget surplus by 1811. The poor state of financial arrangements was due to a "lack of knowledge on the part of the new British to Malta", 
and a willingness to please the population. In this way, there was a considerable duplication of petty posts, many dubious pensions granted by the Knights were honoured, and although plans had been suggested for direct taxation, they were not implemented - all for the sake of goodwill. As the Commissioners said, "The Maltese are not accustomed to the Payment of Taxes". Moreover, the Maltese had had no experience in organising finances, and the state of the Universita, for example, had suffered through having been run for a time by inexperienced Maltese. The Commissioners found "the greatest confusion and disorder, wherever the Maltese are concerned in matters of Finance", and strongly recommended that "whatsoever names, titles or offices be given to the Maltese, the efficient and responsible situation, in all money transactions, be universally confined to an Englishman". This attitude was to persist for a long time.

The problem of feeding the large Maltese population was made more difficult because it increased rapidly after the arrival of the British. The main reasons for the increase, according to the 1812 Commissioners, were that there was no longer any emigration of the Maltese, "the warfare of their ancestors" had ceased, they were no longer subject to the ravages of small-pox or injudicious treatment in the hospitals, "the severe yoke of tyrannical
government" (French) had been removed, and finally, the Maltese married early, were extremely prolific, and lived to an old age. The Commissioners may have over-estimated the political reasons, and they were certainly too early with their statement about improved health, but the points about emigration and early marriage in a boom period were valid ones.

Estimates of changes in population may be made by comparing two sets of published figures, one in 1760 and the other in 1808. These figures must be treated with great reserve, but they do suggest that the trend towards a concentration around Valletta which began in the days of the Order continued even more rapidly at the beginning of the 19th century. In 1760, Valletta (with Floriana) was the largest town, although not much bigger than the "Three Cities" together (16,500 and 12,800 respectively), but by 1807, Malta was experiencing a trade boom, maritime activity had moved to the other side of Grand Harbour, and Valletta tended to grow more quickly than the "Three Cities". In 1807, Valletta and Floriana numbered about 24,500 against about 13,700 in the "Three Cities".

The urban population which prospered during the trade boom became depressed after the war, although it
was better off than the rural families. The agricultural element was particularly hard-hit after the Napoleonic Wars, when prices fell and the collapse of the cotton industry appeared in its full significance for the first time. Farmers holding land in emphyteusis were in a particularly difficult situation. With the end of the cotton trade and of the war-boom in cereals, agricultural produce fell in value. Short-lease rents tended to fall similarly, but emphyteusis rents remained high. The time-lag between long-range price fluctuations and rentals worked against the Maltese farmer during all the first half of the 19th century, (as also, of course, in much of the rest of the world). In 1836, it was recorded that the prices of agricultural produce had fallen on average by \( \frac{1}{3} \) since 1827, but that rents had fallen by only \( \frac{1}{2} \)\(^{(19)} \). Moreover, rents tended to be kept up by competition, for tenants offered more than they could afford in order not to lose a piece of good land during a period of insecurity. Landlords relied on the right of confiscation of crops for payment. It was estimated that only 5% of farmers had sufficient implements, and that the average capital invested in implements amounted to only sixteen shillings and eight pence. Farmers were badly in need of credit facilities, but owing to the depression in the industry,
interest rates were high.

After the collapse of the trade boom, the absence of alternative employment was noticed everywhere. The Maltese had no major skills or crafts, other than the cotton industry, which remained to supply little more than local demands. In 1836, spinning was still the main manufacturing occupation, followed by weaving. The only other manufactures which were considered worthy of note at that time were small and localised - salt and earthenware manufacture at Birkirkara, matting for chair bottoms in Siggiewi and tanning of hides at Tarxien. Not even fishing had been developed by the Maltese. The 1812 Commissioners doubted whether fish existed in sufficient quantities in Maltese waters to make the fishery an object of much attention, and many of the fishermen had been tempted away from their employment to work as watermen and porters in Grand Harbour.

Thus, at the beginning of the 19th century, Malta was in a position analogous to that of the present day, in that it was incapable of supporting its population except when outside circumstances brought activity to the harbours.
In this Section, the writer considers the development of one of the main themes of his Thesis, namely, the decline of the national economy and the consequent increased dependence upon outside sources of income.

In Chapter 1 he deals with the importance of commercial activity to the Maltese economy during the period and, in Chapter 2, with the trend of the economy as a whole.

Chapter 1. Commercial activity.

During the nineteenth century, the trade and port activity of Malta increased enormously. The most significant single factor was naturally the close association of the Islands with a Great Britain whose industrial and maritime supremacy was only challenged towards the close of the century. This association resulted in a closer linking of the economic features of Malta with international trade. As the century progressed, world trends and business cycles became more and more closely reflected in Maltese commerce.

Nevertheless, changes in political, economic and technical conditions affected Malta in some distinctive
ways. During the century, the proportion of Maltese commerce based on indigenous resources and manufacture became generally smaller. The antithetical trend, the increasing proportion of Maltese commerce concerned with re-export and a calling trade, produced, in time, an increased sensitivity to changes in general conditions. Underlying all, there remained the fluctuations consequent upon the strategic value, directly to Britain, indirectly to other powers, of Malta as a base.

The interplay of these various factors produced variations in general commercial trends, particularly as measured by the volume of shipping handled. These variations are associated with particular periods of the nineteenth century, and herein after will be considered in such groupings.
COMMERCIAL ACTIVITY, 1798-1854.

Between 1798 and 1820, external trade developed in the special circumstances of the Napoleonic Wars. World trade as a whole grew slowly, and in a pattern distorted by blockades and policies of war economy. Some regions stagnated, others, through which activity became artificially canalised, boomed. Malta was one of the latter.

From 1820 to 1854, Maltese commerce reflected slow world and regional adjustment to conditions of peace, and the growth of an international economy. In this new world, Britain was gradually becoming the dominant commercial and industrial power. The upward trend of activity was still slow, and technological changes such as the application of steam power to land and sea transport were only beginning to have general economic effects. This was still an "Iron Age", cheap steel with all that that implied in accelerating industrialisation only becoming quantitatively important with the employment of the Bessemer converter after 1856. This period ends, therefore, with the dawn of the "Steel Age", with the advent of steam ships, and with the trade distortions of the Crimean War.

"The trade of Malta previously to the invasion of the
French in the year 1798 was inconsiderable" - so stated the Royal Commissioners in 1812. What trade there was "consisted chiefly in the exportation of cotton twist, the produce and manufacture of the Island. Of this, their staple commodity, the Maltese merchants conveyed the greater part to Spain, where it was held in high estimation".

The cotton industry in Malta is discussed in detail elsewhere; examination is here confined to trade in cotton. Trade in cotton twist declined from the turn of the century, not because of the political situation and changes of government (for it could have recovered from that), but because of the loss of markets. In 1800, the Spanish government issued a proclamation prohibiting all importation of foreign cotton. Excluded from Spain, the cotton merchants sought markets elsewhere on the continent. Occasionally they were successful, especially in Sicily, but the total overseas demand declined, and even as early as 1812, the Commissioners considered Maltese cotton twist as an unsaleable commodity. Thus deprived of its outlet abroad, the industry in Malta existed only so long as there was a home market. The industry was supported to a certain extent during its decline by Government legislation, for the social consequences of the collapse of the trade were serious.
Many thousands of the poor classes had supplemented their incomes by spinning or weaving, and the removal of this caused much hardship.

When the British arrived in Malta, not only was cotton twist the most important export, but cotton was the main cash-crop of the island. Apart from the export trade, a considerable quantity was manufactured for local consumption, and Ball in 1801 claimed that "nearly 100,000" were clothed with it(1). He opined that the quality of Maltese cotton goods was too coarse for any foreign market except perhaps North Africa, but he mentioned the importance of the export of thread to Spain, which he valued at 1/2 million sterling annually.

Because of the importance of spinning to the poorer classes, the export of Maltese cotton-lint was prohibited. This protection of the home industry was socially desirable, and it was considered necessary because the Maltese lint was of good quality (i.e. saleable abroad).

The first threat to this situation came in November 1801, when Valletta was made a Free Port in an attempt by the British Government to improve the trade of the Island. This meant that cotton-lint could be imported into Malta freely, whereas previously importation had been restricted. The Grand Masters had occasionally permitted the import of Turkish cotton when the Maltese crop had failed, in order
to maintain the industry for the poor. The merchants who had pressed for a Free Port claimed that the step would encourage the cotton industry in the Island.

In fact the industry was dying so quickly that it could not maintain itself at a level sufficient even to process all the locally produced cotton. The landowners in Malta objected to the formation of a Free Port on the grounds that the importation of cheap foreign lint (i.e. that possibility) would lower the price of Maltese cotton, thereby bringing about a reduction in the value of land. The counter to this was that the Maltese cotton, being of a higher quality, would not therefore suffer direct competition. By 1806, a system of marking had been devised, to distinguish the Maltese cotton-lint from the cheaper varieties from the Levant.

Various attempts were made to create an export trade in this commodity - particularly in 1809, when the suspension of trade between Britain and America created a demand in Britain for raw cotton from other sources - but the argument that exports of raw cotton would cause hardship to the poor was always maintained. In 1822, however, it was decided to permit exports of raw cotton for one year, supplies for local spinning at the same time being assured by the permitting of free import of foreign cotton-lint, but not foreign yarn. This measure had long
been sought by the farmers who reckoned that the protection of the poor classes adversely affected their profits(6). Moreover, the farmers would be certain to suffer from the changes in the corn trade which was to be freed from restrictions in July 1823. Further arguments for the change were that the cultivation of cotton needed more labour, and Malta could always import cheap foreign cotton for the local manufacturers.

This measure was annulled in 1824 and revised again in 1825. In 1826 there was a brisk trade in Maltese cotton-lint, and there appeared a petition from the spinners to prevent exports. This was rejected as being prejudicial to the growers(7). In the same year, Maltese cotton was permitted to enter Britain free of duty.

In 1828, there was a request by Maltese merchants that Egyptian cotton should be directed through Malta on its way to Britain(8). It appears that Malta was suffering at this time because there was little demand for Maltese twist. Much remained unsold, and the raw cotton, despite its quality, could not compete in price with Egyptian cotton.

Since the loss of the Spanish market, the Maltese cotton merchants had traded most successfully with Italy. In 1816 however, the Kingdom of the Two Sicilies had abrogated the ancient Treaties of Commerce between that
country and Britain, depriving Britain of trading privileges. Part of this abrogation resulted in the total prohibition of imports of hand-spun cotton. This was done (as declared in the Decree) expressly to exclude Maltese yarn, for British machine-spun yarn was still accepted. By that time, Naples had become the main market for Maltese yarn, so the Maltese spinning industry was fatally affected.

By 1830, the export trade in Maltese cotton yarn had virtually disappeared so that all that remained was a small export of raw cotton. By this time the main market for lint was Greece, and even this was declining as cotton cultivation expanded in the Morea.

Wages in Malta reflected this depression of value and in 1830 it was difficult for a spinner to earn more than 2d. per day (compared with 6½d-8d earned by agricultural workers or urban unskilled labourers)⁹. The industry was still considered socially desirable inasmuch as it relieved poverty in the Island. In 1828, the Government even started a cotton factory in Gozo to aid the poor. Even that could only run at a loss, and it was soon closed.

The greatest increase in trade after the arrival of the British was in the entrepot trade¹⁰. After the
1800 capitulation, two or three British merchants established themselves in Malta, but for a time, trade was very slack. In 1801, Valletta was declared a Free Port in an attempt to develop its commercial possibilities, but the advantages of this were not immediately felt because the Treaty of Amiens (1802) neutralised its effect. In fact, trade did not develop until the recommencement of hostilities (1803), after which there was a tremendous boom, due to a series of Orders in Council permitting trade between Malta and ports on the northern shore of the Mediterranean, the first of them dating from 1807. These Orders in Council were issued in opposition to the Berlin and Milan Decrees of 1806 and 1807. As a consequence of the controls which were imposed on direct contact with the Continent (on all ships), Malta, with its favourable position, security, and Free Port facilities, became the main entrepot for neutral, as well as British, trading in the area.

The Berlin Decrees (1806), re-iterated in the Milan Decrees (1807), were an attempt by Napoleon to defeat Britain by imposing a blockade on all Continental ports. Napoleon believed that the strength of Britain lay in trade, and since her chief market was Europe, and he controlled Europe, then he could stop this trade and
starve Britain to death.

The British answer was the Orders in Council of 1807. If Britain was to be excluded from trading with Europe, so also should the neutral powers. The French lands were therefore placed under blockade. Napoleon, by virtue of military power, tried to cut off Britain from occupied Europe; Britain, by virtue of naval power, cut off French Europe from trade with the rest of the world.

War with Turkey (1807-1809) did not damage trade, for Valletta became the entrepot for all trade between Britain and the Levant, and also the medium of contact between the Levant and the Austrian States, for the British Orders in Council prohibited direct intercourse between the two. In 1808, the American Embargo Act increased the demand in English markets for goods from the Levant and Sicily to substitute those lost through the suspension of American trade. Because of the war with Turkey, these could only be brought through Malta. Furthermore, because of the amount of British capital invested in Malta, and the security afforded to it, Malta also became the centre for Sicilian trade.

In the same year (1808) the demand for British textiles increased in the Levant. Previously, this had been the
almost exclusive market for Saxony cottons, but trade restrictions ended that, and the Levant had to buy from Britain. British goods were more highly priced, but trade increased as British firms took an interest in the market.

In 1810, the boom declined somewhat, for the repeal of the American Embargo Act, peace with Turkey, and the occupation of the Ionian Islands by British forces, brought about a general slackening in trade restrictions.

By 1811, commercial confidence had been restored, and trade became more regular, but there was no great remaining inducement to speculate in Mediterranean produce, and trade declined. Ships which had previously been able to depend on a return cargo often had to make the return trip in ballast.

The greatest trade was in Colonial produce, and immense quantities of coffee passed through the Island. By this time, there were 60 British commercial enterprises in Malta, between 20 and 30 considerable Maltese businesses, and many foreign establishments (mainly German, Italian and Greek). Colonial produce was also sold by innumerable itinerant merchants from Sicily, Albania and neighbouring shores (10).

The main trading contacts in Europe were with Marseilles, Livorna, Naples, Ancona and Trieste (contraband).
Other significant links were with the Barbary States (to a slight extent), Egypt (extent depending on the variations in the grain trade), Smyrna, Constantinople, Arabia, Felix, Acre, Cyprus, the Ionian Islands, and the Morea. The Albanian ports were important in providing access to the Continent, and the old route link between Salonika and Austria was utilised considerably(10).

During this period of the Napoleonic Wars, Malta benefitted not only because the dual blockade of the "Continental System" tended to channel trade into Malta which might otherwise have passed more directly through some continental port, but also because of a further series of Orders in Council which granted licences for the protection of trade directly between Malta and ports nominally controlled by the French. That this trade should be at all possible is surprising. The main reason why it was possible is that although Napoleon's blockade policy was apparently a shrewd move (Dr. H. Rose in "Britain's Food Supply in the Napoleonic Wars" shows that if Napoleon had stopped the corn supply to England from the Continent, he could probably have forced her to surrender, as she could not import food rapidly enough, nor in sufficient quantities, from the New World), it failed because Napoleon did not have the naval power fully to implement it. Britain controlled the seas, and
was able to benefit from the desire of countries defeated by France to continue trading. Napoleon's blockade did some good to French business, but other continental countries suffered considerably because of the rise in prices, and were only too eager to break the blockade whenever possible. Even some French ports were entered for the same reason. Napoleonic policy was also based on rather simple mercantilist policies, which further reduced the effectiveness of the blockade. British importation of goods, insofar as it resulted in the outflow of bullion, was illusorily regarded as damaging to Britain's economic strength. Never, therefore, was there any really effective attempt made to deprive Britain of the commodities she needed. Since Britain, too, desired to retain trading relations, licences were granted for certain cargoes and certain ports. In the Mediterranean all this benefitted Malta.

Thus it was that in 1808, the Levant trade was resumed, despite the war with Turkey. This trade and the trade with Trieste were especial features of that year (see table p. 54). Exports consisted almost entirely of British manufactures and Colonial goods which were well received in Trieste despite the French inspired edicts of the Emperor of Austria against their admission into his ports. Returns from the Adriatic included - timber, hemp, cordage
pitch, tar, tallow, flax, iron, steel, nails, linen, quicksilver, verdigris, glass, tobacco, wines, etc. Returns from the Levant were even more profitable - fruit, cotton, oil, wine, timber, valorea, drugs, soap, carpets etc., for which there was an immense demand in London. (The cargoes numbered in the table do not include Greek traffic. The Greeks at this date sailed under the Jerusalem flag, but licenses were not given to such vessels when they exceeded 100 tons burden, so no account remained of such cargoes).

Towards the end of 1808, quantities of Levant produce in Malta became so great that shipping could not be found for carrying it to England, and in Malta the storage facilities were inadequate. Sir Alexander Ball (Civil Commissioner) permitted the export of the more perishable articles to certain restricted ports on payment of duty.

In 1809, the peace with Turkey suspended the necessity for licenses to the Levant, and trade in that direction resumed its normal form, but the Maltese trade with Trieste remained till mid-year. Orders in Council made this trade more general, permitting export to restricted ports of any articles from countries within the "streights" without the necessity of sending them in British ships. Further orders modified the quasi-blockade in favour of the Southern States of Italy, but then the granting of
licenses was suspended owing to doubts over policy. These doubts did not last long, and in January 1810, trade began again.

Number of Licenses granted:

<table>
<thead>
<tr>
<th>Year</th>
<th>Export</th>
<th>Import</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1808</td>
<td>150</td>
<td>303</td>
<td>453</td>
</tr>
<tr>
<td>1809</td>
<td>41</td>
<td>76</td>
<td>117</td>
</tr>
<tr>
<td>1810</td>
<td>157</td>
<td>438</td>
<td>595</td>
</tr>
<tr>
<td>1811</td>
<td>85</td>
<td>604</td>
<td>689</td>
</tr>
<tr>
<td>to July 1812</td>
<td>103</td>
<td>524</td>
<td>627</td>
</tr>
</tbody>
</table>

By this time the Austrian ports in the Adriatic had been ceded to the French, and entry to the Continent by that route became difficult.

In March 1810, more Orders in Council provided another opportunity for trade with enemy ports. These Orders relaxed restrictions on exports to include a wider range of Levant and Sicilian produce, especially salt. Trade between Malta and the ceded ports was in fact encouraged by the revenue importance to the French state monopoly of salt sales. Italy was supplied with salt through Goro (conveniently situated for navigation of the Po), the Illyrian provinces, Fiume and Trieste. French revenue derived from salt was so great that any vessel bringing $\frac{1}{2}$ in bulk of salt could freely enter the above ports. The rest of the cargoes were of Sicilian and
Levant produce, as the French did not at that time grant licenses for British Colonial produce. Goods excluded from the French ports were often smuggled in, especially through the island of Lissa in the Adriatic (19 cargoes in 1810). Returns from the Adriatic now included grain, for which there was a considerable demand in Spain.

This business with the French ports, carried on often against regulations, was not always successfully completed, and in 1810, several cargoes were confiscated.

(Imports from France and Italy were listed as follows: marble, rags, oil, paper, Turkish caps, raw and manufactured silk, cream of tartar, juniper berries, liquorice paste, pozzolana earth, manufactured goods, wines and spirits. Quantities were small.)

Early in 1811, the salt trade suffered an interruption which threatened its annihilation. Cargoes from Malta were directed to contain by bulk of British or Colonial goods. Exports declined except to Lissa, and were only resumed towards the end of the year owing to salt made in Government salines being considered as Colonial produce. (This was bought by a French merchant at twelve times its intrinsic value.)

This interruption caused the French to attempt a repair of the salt works in the N. Adriatic, (without success, because the necessary funds were not forthcoming).
An Italian merchant went to London to attempt to re-open the trade, and in 1812, the British Government stated that the $\frac{3}{4}$ rule should apply to value. The salt trade then resumed at the former level, with small bulk, high-value produce accompanying the salt, and occasionally even whole cargoes of Colonial produce were exported on licenses from the French. Imports from the Adriatic increased, especially raw silk from Italy.

**Statement of Cargoes from Malta, between January 1st 1808, and July 31st 1812 (10).**

<table>
<thead>
<tr>
<th>Destination</th>
<th>1808</th>
<th>1809</th>
<th>1810</th>
<th>1811</th>
<th>1812 (to July)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levant</td>
<td>89</td>
<td>8</td>
<td>3</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Trieste</td>
<td>$\frac{3}{4}$</td>
<td>22</td>
<td>$\frac{3}{4}$</td>
<td>13</td>
<td>23</td>
</tr>
<tr>
<td>Fiume</td>
<td>3</td>
<td>1</td>
<td>$\frac{3}{4}$</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Venice</td>
<td>10</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>6</td>
<td>24</td>
</tr>
<tr>
<td>Goroz</td>
<td>3</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td>Ancona</td>
<td>10</td>
<td>3</td>
<td>$\frac{3}{4}$</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Lissa</td>
<td>3</td>
<td>3</td>
<td>$\frac{3}{4}$</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Lossin</td>
<td>2</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Parga</td>
<td>1</td>
<td>1</td>
<td>$\frac{3}{4}$</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Calipoli</td>
<td>2</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Taranto</td>
<td>6</td>
<td>4</td>
<td>$\frac{3}{4}$</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Barletta</td>
<td>2</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Naples</td>
<td>1</td>
<td>1</td>
<td>$\frac{3}{4}$</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>C. Vecchia</td>
<td>2</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Livornia</td>
<td>2</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Marseilles</td>
<td>1</td>
<td>1</td>
<td>$\frac{3}{4}$</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Taragona</td>
<td>1</td>
<td>1</td>
<td>$\frac{3}{4}$</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>Alexandria</td>
<td>2</td>
<td>2</td>
<td>$\frac{3}{4}$</td>
<td>2</td>
<td>10</td>
</tr>
</tbody>
</table>

**TOTAL** | 150  | 41   | 157  | 85   | 103           

During late 1811 and 1812, the price of grain was so high in the Mediterranean that several small Italian and Illyrian boats came from the Adriatic with grain,
returning with sugar, coffee and British manufactures. Lissa trade increased, as annexation by the British added security to the port.

So by a series of Orders in Council over a period of five years from 1807, Malta became the focal point and support of trade in the Mediterranean between Britain, the Continent and the Near East, a trade whose destruction was otherwise inevitable (even if only temporarily). Commercial prosperity brought benefit to the Island, and Malta provided the neutral powers with a general market, whose safety stimulated even the hostile countries to continue normal trade through a safe, if circuitous channel.

After the end of the war, the particular advantage of Malta disappeared, and other places began to re-capture their lost trade. Much trade, even British, which had previously passed through Malta began to by-pass the Island. In 1822 a press pamphlet appeared eulogising Malta as an entrepot and deprecating the policy of the British in not availing themselves of the use of the Island at every opportunity(11).

It was hoped that trade would improve after 1823 when Governor Maitland threw open the corn trade to private speculation (it had previously been a Government monopoly). As early as 1805, Black Sea merchants had asked permission
to establish granaries in Malta for their trade with Spain and Portugal (12). They wished to land cargoes in Malta in order to cool them, and also to build up stocks in order to be in a position to distribute grain in response to specific market demands - the sea journey from the Black Sea to Spain direct, was long and uncertain.

Until 1830, Colonial Office despatches (13) mention the low level of trade, especially with the eastern Mediterranean, following the outbreak of political troubles in Greece, and high quarantine dues due to epidemics in Malta. (13 1/4 people died from smallpox in 1830 and 1831)

There was a revival in the 1840's, but it was not until the outbreak of the Crimean War in 1854, that business in Malta really recovered.
FIG. 2.

WORLD TRADE: Indices of Value and Wholesale Price.

Long-range trends of world trade.

World trade.

Wholesale prices.

INDEX, 1890 = 100.

1870 1880 1890 1900 1910

B

UK Exports of iron & steel, excluding machines, cutlery & hardware.

1850 1860 1870 1880 1890

MILLIONS OF TONS
COMMERCE ACTIVITY 1854-1914

The world background to Maltese trade in the second half of the nineteenth century.

This was a period of expanding world trade. Many factors were involved in this expansion, some of local, others of international importance. Scientific progress in many fields meant not only an increase in the range and scale of manufacturing industry, but also improvements in transportation which enabled countries like Britain to develop their new industrial economy on the basis of growing international trade. It was a period of growth in sea communications, associated in particular with increases in the number and size of iron steam ships:

**Typical size of sea-going ships at different periods (14)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500-1800</td>
<td>300 tons</td>
</tr>
<tr>
<td>1840</td>
<td>500 tons</td>
</tr>
<tr>
<td>1860</td>
<td>900 tons</td>
</tr>
<tr>
<td>1880</td>
<td>2,000 tons</td>
</tr>
<tr>
<td>1900</td>
<td>4,000 tons</td>
</tr>
</tbody>
</table>

It was also a period of great railway development.

Other factors which assisted the growth of trade in this period were the building of the Suez Canal (opened in 1869), and the free-trade policies of certain trading nations, notably Britain. Towards the end of the period, trade and business were helped by general international
acceptance of the Gold Standard.

These were the factors assisting the development of trade. That this development was not even was due to another set of factors. Notable among these are periods of political crisis such as the Crimean War (1854-1856) when international tension retarded normal trade, and the American Civil War (1861-1865) when an internal crisis in a major trading area had a distorting effect on world trade as a whole (other producers were stimulated because of the short supply of American produce, e.g. the development of the Argentinian corn trade). Such incidents tended to cause volumetric irregularities, but most important were fluctuations in prices. (See Fig. 2).

The two long-range trends in world trade changed direction at a significant period in the trend of world wholesale prices in the late 1890's. From 1873 to the mid-1890's there was a great downward sweep in prices. With the recovery after that date came a great acceleration in the increase in the value and volume of world trade. During the first period, lasting nearly a quarter of a century, fluctuations of good and bad trade showed "as ripples on the surface" of this fall in prices, which brought with it "a depression of interest, a depression of profits, and a certain resultant discouragement in the world of business" (15).
The first halt in the 19th century trade-boom came in 1857. Until then, trade and prices had both been increasing, but the Crimean War and the world-wide financial troubles of 1857 were depressants. From 1857, prices and trade rose again until 1873, when there came a world financial crisis which threatened to become as great as that which affected America and Europe in the 1920's and 1930's.

Prices began to fall in 1873. Although trade recovered from the collapse of 1873, it fell again in the mid 1880's, and although it increased again with the temporary improvement in prices in 1888-1890, it was not until the real turn of the tide in prices came in 1895, that it underwent the tremendous increase, which was to last until the first World War.

In Britain, a great impetus was given to overseas trade in the late 1840's, by railway building (in Britain and abroad), a growing population, and free trade. The period of trade "protection" ended effectively after 1850. From this time until the 1880's, there was a sharp increase in trade, followed later by a slackening. Clapham(16) saw this acceleration as registering the passage into "a new era of economic history". Britain came through the financial crisis of 1873 very well, but was affected by the period of falling prices which came after it. On
the other hand, British trade benefited in the years that followed from the opening of the Suez Canal in 1869 even more than the French, who were recovering from a lost war, and who were ill-equipped for iron and steel shipbuilding. The crowding of the canal with British shipping - (in 1879, 2,263,300 tons of shipping passed through Suez, of which 1,752,400 were British and only 181,700 French) - owed much to the rise in importance of iron steamers as general cargo carriers (the Red Sea being difficult to navigate by sail). Conversely the advent of iron steamers was to a large extent accelerated by the opening of Suez.

Trade in British coal expanded very considerably in response to new economic opportunities. In the early 1850's, there had been an annual export of about 3-4 million tons. From that time there was a steady rise to 20 millions per annum for the period 1880-1884, and 23.5 millions for 1884-1886. Of this last figure, 18 millions went to Europe and the Mediterranean.

There were also bulky cargoes of iron and steel. This trade was irregular, varying with overseas activity, and was subject to interruptions, resulting from competition by new industries overseas, and accompanying tariff restrictions. The fortunes of this branch of the export trade give a good indication of the sort of fluctuations which occurred in commerce as a whole during the
period (fig. 2). There was expansion at the beginning of the period up to 1853, and then stagnation during the Crimean War. Afterwards, trade jerked to a higher level, only to stagnate again after the commercial crisis of 1857. The greatest impetus was given after the American Civil War, in 1866, but there followed the commercial collapse of 1873. The trade was then affected by the prolonged price slump, and although it recovered in 1880, it declined again in 1885-1886. Temporary recovery came again in 1888 with the temporary revival in world wholesale prices.

Clapham states(17) that by 1880, Britain was so deeply involved in world trade, by reason of her industries, transport facilities and finance, that she became "sensitive to the economic weather of the whole earth". So it was that the ebb and flow of commercial activity in Britain was a reflection of world affairs inasmuch as they inspired confidence or discouragement in investment, trade and industry.

The most powerful of these influencing factors was the slump in prices from 1873, but from the 1880's onwards, Britain also began to feel the competition of foreign manufactures, and began to suffer from the imposition of tariffs. The result was that the period 1885-1886 was one of considerable depression owing to the sustained price
fall plus industrial ebb. (In 1885-6, there was actually a full-scale enquiry into the causes of the depression in trade and industry).

1887 saw the beginning of a brisk revival - "an upward ripple on the falling sweep of wholesale prices", which brought about renewed economic activity. (U.K. exports in 1890 were 25% higher than in 1885-6, and although some of this 25% was due to increases in prices most was due to increase in volume).

This burst of activity slackened in 1891, and consequently, prices fell again. The great fall ended in 1895, and subsequently, prices rose up to the time of the first World War.

This pattern of trade for the United Kingdom closely reflects that of three other leading commercial nations, the U.S.A., France and (after 1871) Germany. There were naturally slight differences in detail - e.g. U.S. trade declined absolutely during the American Civil War, and German figures are scarcely comparable until the 1880's, as German industry was just beginning to move into the world market, - but the general trends are similar, - i.e. an increase after 1850, slackening to a declining increase by 1880; a decline to 1885; a temporary increase to 1890; a decline to 1895; and then a general sharp increase to 1914(18).
Business Cycles in the second half of the 19th Century.

The long-range trends in trade themselves were not regular, for they were made up of cycles of minor booms and depressions. The reality of these business cycles and the regularity of their occurrence has been shown by Rostow. These cycles are the result of a natural time lag which arise in arranging business. In the mid-19th century, a short-term business cycle of about 4 years began to give way to a longer cycle of 9 years. The reason given is that the industrialisation of the British economy gave greater importance to long-term investment rates in determining levels of business, rather than the simpler relation of supply to demand which was behind the 4 year cycle. Rostow notes the fluctuations caused by these cycles in the following way:

<table>
<thead>
<tr>
<th>TROUGH</th>
<th>PEAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1832</td>
<td>1836*</td>
</tr>
<tr>
<td>1837</td>
<td>1839</td>
</tr>
<tr>
<td>1842</td>
<td>1845*</td>
</tr>
<tr>
<td>1848</td>
<td>1854</td>
</tr>
<tr>
<td>1855</td>
<td>1857</td>
</tr>
<tr>
<td>1858</td>
<td>1860</td>
</tr>
<tr>
<td>1862</td>
<td>1866*</td>
</tr>
<tr>
<td>1868</td>
<td>1873</td>
</tr>
<tr>
<td>1879</td>
<td>1883*</td>
</tr>
<tr>
<td>1886</td>
<td>1890</td>
</tr>
<tr>
<td>1894</td>
<td>1900*</td>
</tr>
<tr>
<td>1904</td>
<td>1907*</td>
</tr>
<tr>
<td>1908</td>
<td>1913</td>
</tr>
</tbody>
</table>

The asterisks denote those cycles associated with long-term investment.
Malta and the World Economy

The especial characteristics of Maltese shipping and trade activity are best viewed against this general background.

Between 1850 and 1870, business trends in Malta followed closely those of Britain and the world with one exceptional period of some significance. During the Crimean War, Malta, unlike most trading areas, benefited from greater civil shipping activity. To this increased business was added a slight boom consequent on a renewed awareness of the military and strategic value of Malta as a British base.

After 1870 the tonnage of ships handled at Malta increased at a greater rate than did world trade. The use made of the Suez Canal, still by relatively small coal-burning ships needing frequent bunkering points, increased sufficiently rapidly for Maltese business to flourish despite the down-turn in the world trade-cycle in 1873, and to benefit from world recovery later in the same decade. As a result, by 1882, the tonnage of shipping handled at Malta reached a total which was to be significantly exceeded only in 1885, 1888 and 1889. Never again did circumstances combine to elevate Maltese port activity to such a high level, except for the abnormal years 1913 and 1914 preceding the first World
The prosperity of the decade was broken only by a short but marked recession in 1886-87, associated with a rather longer world trade-cycle decline. On this occasion, Maltese commerce proved more sensitive to general external occurrences than it had in the 1870's. This increased sensitivity may be regarded as a foreshadowing of later decline. In 1886-7 decline particularly affected the grain trade which was at a much higher level than in 1873.

Between 1889 and 1892, shipping activity declined continuously and rapidly to a new and much lower level. Thenceforward, Maltese commercial activity at this new level showed trends which correlate closely with those of world commerce. The significant point that emerges is not that the period post-1890 was one of remarkably slow development (as maintained by Maltese commercial interests at the time(20)), but rather that the 1870's and 1880's were boom periods caused by a unique concentration of circumstances.

The shipping boom of the 1870's and 1880's

The unique shipping boom during the twenty years 1870 to 1890 is of sufficient significance to warrant the making of a detailed analysis, because examination of the reasons for its occurrence brings out the especial
characteristics of Malta's commercial significance very clearly.

Tonnage figures for detailed movements of shipping to and from Malta have been examined in order to find out in which particular directions changes in shipping movements took place. (See appendix A).

Detailed movements of shipping to and from Malta make a very intricate pattern, but they can be classified into several main groups. First, movements may be divided into local movements to and from Mediterranean ports, and long-distance movements to and from ports outside the Mediterranean. The long-distance movements may be further divided into:

(a) the Black Sea area to Britain and N.W. Europe.
(b) to and from Britain and the Far East.

These three major groups of shipping movements correspond with well-defined trade linkages. Each pattern of movements to and from the local Mediterranean ports during the boom period is individually unique, but when grouped together they form a trend which is similar to that of total shipping movements, and which is similarly

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*These figures are available in the Blue Books, but only from 1871 onwards.*
related to world trends in commerce. This is to a large extent a comment on the multilateral nature of trade during the period.

Malta was to a certain extent at this period an entrepot for British trade with the Mediterranean, and had developed rapidly as a bunkering station after the opening of the Suez Canal in 1869 (see appendix B). More long-distance traffic was entered in Malta than was cleared, indicating that some ships were going on to other Mediterranean ports. This was a feature of every year during the period 1871 to 1895 except 1875-1877, 1879, 1889 and 1891. The late seventies were in fact characterised by two periods of slackness in shipping activity, and 1890 saw the beginning of the great decline from boom levels.

The long-distance shipping movements were associated with three main trade linkages, namely, the grain trade from the Black Sea area to Britain and N.W. Europe, the movement of British goods to the Middle and Far East (including coal to Malta for bunkering purposes), and the movement of "colonial produce" to Britain.

The great boom was not apparent in all lines of movement. It was evident in the sum of local movements, but it was in long-distance shipping that the greatest rise - and fall, after 1889, - took place.
Since detailed movements are not available before 1871, the pattern in the pre-Suez Canal era cannot accurately be drawn. However, judging from the total shipping tonnages entered and cleared before and after the opening of the canal, and from the trend of local Mediterranean movement in the years immediately following 1871, it would appear that only about half the movement was long-distance in the late 1860's. This would be mainly to and from Britain. After the opening of the Suez Canal, there was an immediate rise in registered tonnages, and by 1871, long-distance movement accounted for 64% of the total. By 1882, 80% of the registered tonnage was long-distance, and apart from recessions in 1886 and 1887, the proportion remained near this level until the long-term decline set in after 1889. By 1895, the proportion of long-distance traffic had fallen again to 70% of the total, and 39% of this was to and from Britain.

There were two main reasons for the boom. The first of these was the tremendous boost given to trade and movement through the Mediterranean by the opening of the Suez Canal. There was an immediate significant rise in tonnages registered in Malta. It is not immediately apparent from registered origins and destinations (from 1871)
that a considerable amount of shipping was passing through Suez, for the tonnage of ships passing directly from Malta to ports beyond Suez, and vice versa, remained small until the 1880's. At the beginning, however, most steamers were still small (the opening of the Canal was in itself an important factor influencing the development of steamships), and since they would have to make fairly frequent stops for bunkering, many of the ships registered to and from Egypt may well have been on the Far East route.

The second reason was a combination of factors which caused a boom in the Black Sea grain trade after 1877 which lasted until about 1890. Very large tonnages (over two million in 1888) were entered at Malta from the Russian and Danube ports, and there was a corresponding rise in clearances for Britain and N.W. Europe. These tonnages fluctuated considerably from year to year.

This link with the Black Sea provides an excellent instance of how a particular combination of circumstances proved favourable to Malta. An increase in the volume of grain trade produced an associated expansion in bunkering.

The growth in demand for grain in Britain following the rapid rise in population in the second half of the 19th century was not, at the outset, met by New World supplies. There was an increase in the supplies coming
from Russia and the Danube lands, regions in which agricultural development had been proceeding rapidly. This trade boomed even higher in the late seventies and eighties, for in Britain, 1875, 76, 77 and 79, were, according to Clapham, “crescendo years of bad harvest”(21), and heralded the agricultural depression of the eighties. There was very little trade from the Black Sea in 1877 on account of the Russo-Turkish war, but a great boom followed immediately after, when Britain began importing cheap wheat in earnest. Between 1852 and 1859, 26.5% of Britain’s wheat was imported annually. From then the proportion rose to 48% from 1868 to 1875, and to 70% in the late seventies(22).

Malta benefited because the grain ships bunkered there, and the bunkering trade boomed. Thomas pointed out in "The Growth and Direction of Our Foreign Trade in Coal During the Last Half Century"(23) that "shipments of coal and the imports of wheat and other commodities is not.....a direct exchange of freight, but.....steamers go a round voyage, part of which is in ballast, taking coal, say, to the Mediterranean and then grain from the Black Sea to Hamburg and home..... The course of the export trade in coal is influenced in some degree by the return freight, and in this way, its direction is, if only
slightly, modified by favourable harvests or otherwise in
different parts of the world, and the consequent varying
sources of our food supplies”.

These remarks are very pertinent, applied to Malta.
The boom in bunkering ended when the grain shipments
decayed after 1890, as Europe began to turn more and more
to the New World for her supplies of cheap corn.

About this time too, other factors began to militate
against Malta as a bunkering port, and the trade stagnated
despite the world increase in shipping. After the
decline in tonnages associated with the loss of the grain
trade, there was a slight recovery in activity as
represented in tonnages, but no extra trade was done in
bunkering. According to a Maltese merchant in 1912(24),
a fundamental change had come about in the shipping which
called at Malta. Tonnages were maintained only because
of the increase in liners, which offset a considerable
decline in tramps. The decline in tramp callings meant
a decline in bunkering.

The bunkering trade had been lost partly because the
increase in the size of ships enabled them to by-pass
Malta, and also because of the competition of Algiers.
In Algiers, coal was discharged and loaded from the
quayside or into large bulks, whereas in Malta it was
discharged onto lighters and had to be stored. Labour
was also cheaper in Algiers, and the result was that Malta was unable to meet the competition because of higher expenses. Direct coaling in Algiers was 1d. per ton compared with 1/- in Malta (25).

At the height of the boom, only a small proportion of shipping left Malta in ballast - in 1888, when the tonnage entered and cleared amounted to over 5 million tons, only 2.5% left in ballast. By 1907, nearly one-tenth left in ballast. The decline in trade and bunkering had set in before the time of the Royal Commission in 1912, and led to the statement then that Malta was suffering in comparison with other Mediterranean ports because of unfavourable freight rates. The multilateral trading which had been a feature of Maltese shipping movements in the late 19th century declined as many of the tramps by-passed Malta. The concentration of shipping and entrepot trade in the large continental ports resulted in a lowering of their freight rates to the further detriment of Maltese business.

The increase in the average size of ships and in the efficiency of steam turbines supplied a technical reason for a falling-off in the importance of Malta as a coaling-station. Furthermore, increased range without refuelling meant not only that ships needed fewer bunkering points, but also that entrepot trade could
become even more concentrated. Political developments, and the adoption of new politico-economic policies, - e.g. in a united Italy, in France and French North Africa, - resulted in a deliberate development of other ports and other trade linkages to the detriment of Malta.

Island harbours in the middle of the Mediterranean had lost much of their commercial value by the twentieth century. These particular commercial advantages were best realised during conditions of trade and transport prevailing during the Napoleonic period - i.e. on a smaller scale. By the 20th century the increase in the level of trade and the scale of transport began to give greater importance to continental ports with a large populated hinterland and good land communications. By this time too, port facilities had become more important than natural harbours. Malta had magnificent harbours, but no deep quays, no good storage facilities, and no hinterland, and thus had no place in the direct trade which was developing between industrial regions and their markets. Distance values had changed.

The combination of these factors reduced Maltese commercial port activity to a lower plane, corresponding more closely with Malta's real commercial status.

Chapter 2. Changes in the general economy.

In 1956, there was a deficit in Malta's visible
trade of £22.6 millions, which amounted to about 95% of the value of retained imports. This deficit was balanced, however, by a surplus in invisible income estimated at £21.5 millions.\(^{(1)}\) This situation whereby visible imports are paid for by invisible exports is the main contemporary feature of the Maltese economy. This feature is far from being a recent development, for it was present to some extent during the period of the Knights,\(^{(2)}\) but the progressive widening of the visible deficit as invisible income increased has been the major economic trend of the last 150 years. During this period, the Maltese economy has developed from one of considerable dependence on overseas-derived income at the end of the eighteenth century, to one of almost complete dependence by the middle of the twentieth century. This trend cannot be traced back precisely before 1910, because it was not until that year (financial year 1909-1910) that complete records of trade were kept. Previously, only goods carrying duty were recorded, and it is not possible to measure the exact extent of the visible deficit.

The Maltese economy may be divided for the purposes of analysis into three sections, -

(1) Maltese Government Revenue

(2) National Product

(3) Balance of Payments
The Revenue and National Product aspects are not important in this section. The Revenue of the Maltese Government is collected and spent in a "normal" way, i.e. it is derived from various dues, duties and taxes, and is used to cover the costs of government. In particular, it goes to pay the large body of civil servants who run the government departments (in Malta, these people make up 20% of the gainfully employed population). (3)

The Balance of Payments is normally a statement of the national economy in terms of cost-accounting. Because of the especial characteristics of the Maltese economy, it is considered in this chapter from the point of view of the availability of convertible currency. In Malta, during the period under review, the problem of the Balance of Payments has tended more and more to resolve itself into the problem of meeting costs of consumption out of income earned from the providing of services as a strategic base.

On the one hand there is a very large amount of visible imports, partly for the Maltese population, and partly for the Garrison (and sold to them through the Raafl and the Maltese businesses). The imports for the Garrison must be considerable, because (if the situation is looked at from the point of view of Maltese gaining of currency) visible exports earned only £0.5 millions in
1956, whereas income derived from total sales of goods and contract services to the Garrison amounted to £11.6 millions.

Visible imports for the Maltese population are very large on the basis of this £11.6 millions, and of a further income of £6.1 millions paid by the Imperial Government direct to Maltese in the form of wages and salaries in the Dockyard and other strategic installations - i.e. currency to the extent of £19.7 millions was earned by the Maltese from Britain in 1956, from the providing of services, from contracts, and from the retailing of goods.

In this section, the Balance of Payments is considered in broad outlines since 1800, - i.e. the total amount of convertible currency which has been available in Malta at various periods for imports of capital and consumer goods. In particular, the variation of the contributions to the available currency by the main sources are evaluated. These sources have been

1. exports of domestic produce,
2. handling services at port centres,
3. direct payments to Maltese by the Imperial Government and the Garrison.

Since it has not been the practice in Malta to invest income in local industries and thus broaden the
base of the economy (except to a limited extent in recent years), most of the available convertible currency has been expended on imported consumer goods. We know that the level of exports of commodities has always been low, and that Malta has, as it were, lived up to the limit of its invisible income. The growth of the deficit in visible trade may thus be observed by tracing and comparing the general trends of the various components of the Maltese economy.

There have occurred in the past fluctuations in the Maltese economy associated with booms and recessions in visible trade and agriculture, but generally, variations in these fields have tended to decrease in importance. More significant have been fluctuations resulting from variations in British expenditure of all types in the Islands.

The Effects of General World Trade

Since 1800, Malta has experienced three main trade booms. Two of these were associated with abnormal conditions during the Napoleonic and Crimean Wars, and their duration depended on the length of hostilities. The third was associated partly with the general fillip to world trade provided by the opening of the Suez Canal, and partly with a unique boom in the Black Sea grain trade with Western Europe in the 1870's and 1880's
It was only during the Napoleonic Wars period that Malta became an entrepot of any great importance. During the Crimean War, British forces and materials passed through Malta on their way to the theatre of war, but Malta was a staging-point rather than an entrepot in the true sense, and during the third boom, increased activity in Malta came more in the form of services to trade (especially bunkering) than in trade itself. Published figures for trade during the third period are deceptive. The Blue Book for 1891 gives figures for what are termed "re-exports" amounting to about £35 millions. However, only about 3% (by value) of these goods were actually landed, of which half were subsequently re-shipped. The remaining 97% proceeded in the same bottoms to further destinations, and the Maltese merchants probably had very little to do with it, for trade was mainly in the hands of grain merchants in the Black Sea area and in Western Europe.

It is difficult to assess how important were these external trading activities in bringing income in the form of convertible currency to Malta. It is also difficult to say how far any such commercially derived foreign income was passed on through the Maltese population, thereby benefitting more than just the merchant group.

(See Section C Ch. 1.)
The Maltese merchants themselves derived considerable increases in income when entrepot activity increased. The most important period in this respect was the Napoleonic Wars boom, during which most of the trade was in British and Maltese hands.\textsuperscript{(4)} A similar state of affairs existed to a less extent during the Crimean War, and to a considerably less extent during the second half of the nineteenth century, when Malta experienced limited development as an entrepot for British goods in the Mediterranean\textsuperscript{(5)}. The bunkering trade\textsuperscript{(6)} was the most important element in this last activity, and led to an important increase in the level of employment in the harbours.

An increase in port employment rather than in real trade was the most important feature of all these boom periods, because it meant that externally derived wealth was more widely dispersed through the lower levels of the population. In this respect, the third period was the most important in that it lasted longest (some twenty-five years), and also in that development in shipping resulted in a growing demand for increased technical skill in the dockyards and on the wharves. During this period there developed also a sizeable population whose employment depended on the demand for civil port handling (See Section D, Chapter 3).
The Effects of British Expenditure

Much more important in their contribution to Maltese income of convertible currency have been direct expenditures by British Colonial and military authorities in the Islands, - i.e. grants to the Maltese Government for public works, military (especially R.N., and R.A.F.) expenditure in constructing defence works, docks, airfields, accommodation for personnel, etc., and in payment of regular wages to a growing urban proletariat (especially in the Royal Naval Dockyard). Such expenditure has been largely related to the strategic value placed on Malta by Britain, and has thus varied with British political activity in the Middle East. Changes in British Colonial policy, particularly regarding the increasing importance attached to social and welfare services should, however, not be forgotten.

At the end of the rule of the Knights, the invisible income derived from the Order's overseas possessions figured high in Malta’s total income, - i.e. the Knights bought food and services from the Maltese population. Local industry at that time made an important contribution, and in some years, the value of sales of Maltese cotton abroad exceeded the income of the Order (see p. 13). On the basis of these two sources, the Maltese population was able to buy from abroad a quantity and quality of goods
beyond the poor resources of the islands, and thereby became accustomed to a dependence on imports. When both these sources of revenue were lost at the end of the eighteenth century, Malta’s prosperity depended on the rapid finding of alternative sources.

The first thirteen years of British control were prosperous because of the trade boom(7). The Napoleonic Wars were as much a commercial conflict as a military one, and for that reason Malta had considerable strategic importance. After the war, however, British interests in the Mediterranean were not seriously threatened until the development of what became known as the “Eastern Question”. British interest in Malta waned, and expenditure in the Islands remained at a low level(8). Furthermore, there was no revival in the cotton trade, and commercial activity slumped after the war. Other ports took advantage of cholera outbreaks in Malta to impose quarantine restrictions in an attempt to recapture trade(9). Occasionally, political events in the Mediterranean brought a burst of naval activity to Malta, but such events were not always an unmixed blessing, for the Greek Wars and the Mehemet Ali crises around 1840 (when naval expenditure reached a peak of £175,000 in 1841)(10), disrupted normal trade.
During this inter-war period, local conditions depended less on European trends than on prevailing conditions in the Mediterranean, which was only just beginning to reflect Western European economic and political trends, - trends to which it was to conform so closely after the mid-century. Because of its relatively high level of imports, the Maltese economy was open to external pressures, but their effect was minimised by virtue of Malta's situation which enabled her to maintain supplies from a variety of sources around the Mediterranean littoral.

The Crimean War and the development of the "Eastern Question" brought about a re-assessment of Malta's strategic importance to Britain. After the Crimean War, military and naval spending in the Islands never fell back to the pre-war level, for Britain remained vitally interested in Middle East affairs right up to the first World War.

The late 1850's and 1860's formed a real boom period, firstly because of spending by the British Garrison and the Imperial Government, secondly because war-time increases in the prices which the Garrison and wealthy Maltese could pay raised farmers' profits, and thirdly because the American Civil War brought a revival in cotton
growing (see Fig.*) which further benefited the rural population.

After the Crimean War, troubles in Italy, Syria and Greece, between 1859 and 1863 resulted in the augmentation of British forces in the Mediterranean, and a race for naval supremacy with France resulted in enlargements to the Royal Naval Dockyard (together with the conversion of the Marsa into a commercial port). These programmes meant plenty of work and high wages for the Maltese labour force. From this time, there developed a special element in the Maltese working population, namely, a group of naval dockyard workers who received direct wages and salaries (see p. 86).

The prosperous period came to a close in the mid-1860's. There were droughts in 1865 and 1867(11), and the revival of cotton growing ended with the conclusion of the American Civil War in 1866. The drought of 1865 was also largely responsible for a further outbreak of cholera which bogged trade down in new restrictions. As a result of all this, there was an emergency situation in Malta in the late 1860's which was solved only by an increase in Public Works expenditure (see Fig.*).

The 1870's brought fluctuating conditions to Malta. There were political crises in 1870 and 1877, associated
first with Serbia, and then with the Russo-Turkish War. Considerable expenditure by the navy accompanied an increase in fleet activity, but when the fleet left the Islands, the loss of its spending power was felt. By this time, expenditure by fleet personnel and the garrison had become an important element of the Maltese economy. The end of the seventies saw the commencement of a series of drainage works which were to provide employment for twenty-five years, financed partly from Maltese Government Revenue and partly by Imperial Government grants.

At about the same time, the boom in bunkering began (see p.60), and Maltese economic history entered a very prosperous phase.

The opening of Suez in 1869 had re-emphasised Malta's strategic importance to Britain. The Suez route became the most important British link with India, and because of the expansion of Russian influence southwards during the second half of the nineteenth century, the maintenance of garrisons along the route became the basis of British defence policy. The reality of the threat to British Imperial communications in the Middle East by a blockade of Suez, or even occupation of Egypt, was clearly demonstrated in the years 1877-1878, when the defeat of the Turkish Sultan in the Russo-Turkish War enabled
Russia to maintain forces in Anatolia\(^{(14)}\). It was this situation which led to a Defensive Alliance between Britain and Turkey\(^{(15)}\), and caused Disraeli to acquire Cyprus as a base. The opening of Suez had made Britain determined to extend imperial communications through the Asian sub-continent. Safeguarding these communications against Russia's southward expansion was bound up with the defence of India. Malta, as a link in the chain, thus acquired an enhanced strategic value.

Signs of economic weakness began to show again soon after the beginning of the twentieth century. Commercial harbour activity slowed down considerably with the decrease in the numbers of ships calling (see p.\(7\)), and with the end of a series of naval and Public Works building programmes in 1907, many people became unemployed,\(^{(16)}\) especially in the urban area. The depression was so great that a Royal Commission sat in 1912 to consider particularly the finances and economic position of the Islands. It was at this period too that details of the economic position of the Islands became known in detail, for the annual compilation of complete trade statistics began in the financial year 1909-1910. From that time, the terms of visible trade deteriorated progressively. By 1918, Malta's visible exports paid for only 10% of
her imports (17), and by 1956, the deficit in visible trade had reached 95%. At the same time the Maltese Government revenue position had become very weak, and annual budget deficits had become frequent.

After 1955, it became possible to assess how the large deficit in visible trade was made up, because the necessary figures and estimates were incorporated in the annual Statistical Abstract for the Islands (18).

About 20% of the gainfully employed population were government employees, and were therefore paid out of Maltese Government Revenue. Of the remaining 80% (c. 66,500), the various Armed Services departments employed 23,670 in 1956 (i.e. just over a third). The income of this group, paid to them directly by the Imperial Government amounted to £8.1 millions, which was just over one third of the total external income derived other than from visible exports. Services’ expenditure net of wages and salaries paid to Maltese amounted to another £11.6 millions (6.8 by U.K. services personnel, 2.5 in purchases of good and contracts, and other payments amounting to 2.3), making the total Services’ contribution to invisible income about 84%. The fact that the Services employ about 28% of the working population makes the contribution paid in the form of wages and salaries particularly important, in that money is being directly
distributed to a large number of people.

This expenditure by the British Armed Forces forms the basis of the high level of consumption of imports in Malta, - the Maltese pay for their consumption of goods with wages and salaries originating directly from outside (as in the case of Dockyard wages), with wages and salaries for contracted services, or with trading profits on sales to garrison personnel.

As long as British Imperial spending remains high in Malta, as long as military, naval and air-force activity remain at a high level (i.e. so long as Malta retains her strategic importance), then the huge visible deficit in trade can be paid for, and Malta can support a large population at a relatively high standard of living. Recent developments, however, have thrown doubt on the permanence of this state of affairs.

In the political circumstances which prevailed during the second half of the nineteenth century and the first half of the twentieth, Malta was of great strategic value to Britain. The growing awareness in Britain of this value, after the Crimean War, led to the development of the Islands' strategic resources, and the tremendous rise in population and living standards which took place during the following century, were related primarily to
the flow of wealth which resulted. Malta's strategic value was well demonstrated during the Second World War. Since then, political and scientific developments have combined to bring about a decline of interest and activity in Malta. The changing methods of warfare and the shift of spheres of international tension in which Britain is involved have brought about a reappraisal of British policy in the Middle East, in which Malta does not figure so prominently.

The most significant factor in this respect is the decline in the importance, and the change in function, of naval power, as a result of the rapid development of methods of aerial warfare. In 1958, the British Government's White Paper on Defence sounded the death knell of the Royal Naval Dockyard in Malta, which employed about 13,000 men in 1956. With the decrease in the size of the British Navy, there is less need for this labour force. By its very nature, air power can be deployed in scattered units, and there is no possibility of absorbing redundant dockyard employees into Malta's airfields.

The decision to close the Royal Naval Dockyard was greeted with great alarm in Malta, despite the assurance by the British Government that alternative employment would be found for the dockyard workers. However, the British Government arranged for the sale of the naval
dockyard, which was bought by C.H. Bailey, Ltd., a firm of ship-repairers from South Wales. The transfer was completed on 29th March, 1959. Baileys are to pay an annual rent of £30,000, which will be shared equally between the Admiralty and the Maltese Government, and the lease is for 99 years.

At the handing-over ceremony, Group-Captain Bailey (managing director) stated the firm's intention to create in Malta "a commercial ship repairing centre which will be the envy of the world". The Admiralty is to continue supplies of repair work until the end of 1960, by which time it is hoped that new commercial activities will be sufficient to offset their loss. It remains to be seen how successful this venture will be.

Although the naval dockyard has been sold, Malta still remains a strategic base. The Island still retains some strategic importance in the Mediterranean - this was amply demonstrated during the Suez campaign of 1956 - but as a British and N.A.T.O. airforce base. There will therefore be less demand for Maltese labour than during the era when British Middle East policy needed a large navy.
SECTION D

Internal economic and social developments during the nineteenth and twentieth centuries

In this Section, the writer examines the second major theme of his Thesis, namely, the increasing domination of the internal economic life of Malta by the harbour area.

Chapter 1 is a statement of the demographic background to internal economic changes throughout the period. This is especially important in Malta because of the very close link between economic matters and population changes.

Chapter 2 examines two closely related results of the domination by the harbour area. The growth of what may be termed the "Dockyard economy" led to the neglect and stagnation of industries based on natural resources. On the other hand, as the importance of the Dockyard grew it came to dominate not only economic developments but also social developments. British influence grew with the Dockyard and the population around the harbour tended to become anglicised. This social tendency has had in turn important economic repercussions in fostering new economic desires.

These new economic desires are most important because they have had a profound influence on the major trend discussed in Section C, namely, the increasing
inability of the Maltese economy to support itself.

Chapter 3 examines the extent to which the increasing importance of the Dockyard was reflected in the occupational characteristics of the population. The rate of change of these characteristics is a significant indication of the growth of the Dockyard's importance.

Chapter 4 shows by means of sample studies the real extent of the economic domination by the harbour area mentioned above, and how it has come about.

Chapter 1. Population and migration.
Regional population changes, 1800-1956(1).

During the period there has been an enormous increase in the population of Malta from about 80,000 to 288,453 in 1956. This increase has not been uniform throughout the Island, and there has occurred a very considerable regional shift in distribution.

Three regions are distinguished by particular demographic characteristics:

(i) urban - the old fortified settlements around Grand Harbour (Valletta, Floriana, Kospika, Senglea, Vittoriosa).

(ii) suburban - settlements fringing the urban region and the harbours (Marsa, Hamrun, Sta. Venera, Birkirkara, Pieta, Msida, Sliema, St. Julian's, Qormi, Pawla, Tarxien and Zabbar with Marsaskala).
(iii) rural - the rest of Malta, frequently called "the villages".

These regions are distinguished in the 1948 Census.

It is important to note, however, that the area of suburban settlement was much less extensive, and much less suburban in character, in 1800, when Birkirkara, Qormi, Tarxien and Zabbar were as much "villages" as Luqa is today.

The regional population changes have been as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Urban</th>
<th>Suburban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>1842</td>
<td>50,401</td>
<td>14,388</td>
<td>34,733</td>
</tr>
<tr>
<td>1851</td>
<td>53,243</td>
<td>17,279</td>
<td>37,508</td>
</tr>
<tr>
<td>1861</td>
<td>56,255</td>
<td>20,514</td>
<td>38,682</td>
</tr>
<tr>
<td>1871</td>
<td>57,107</td>
<td>23,416</td>
<td>42,529</td>
</tr>
<tr>
<td>1881</td>
<td>57,140</td>
<td>30,532</td>
<td>44,477</td>
</tr>
<tr>
<td>1891</td>
<td>57,215</td>
<td>39,568</td>
<td>49,701</td>
</tr>
<tr>
<td>1901</td>
<td>57,789</td>
<td>47,559</td>
<td>55,604</td>
</tr>
<tr>
<td>1911</td>
<td>55,368</td>
<td>59,588</td>
<td>64,113</td>
</tr>
<tr>
<td>1921</td>
<td>53,463</td>
<td>74,278</td>
<td>61,956</td>
</tr>
<tr>
<td>1931</td>
<td>55,439</td>
<td>92,254</td>
<td>70,091</td>
</tr>
<tr>
<td>1948</td>
<td>35,134</td>
<td>140,280</td>
<td>96,897</td>
</tr>
<tr>
<td>1956</td>
<td>41,800</td>
<td>147,000</td>
<td>99,600</td>
</tr>
</tbody>
</table>

Differences in the rate of population change in the three regions are shown in fig. 4. The spread of settlement during the period under consideration and the change in distribution of population are shown in fig. 5(2).

There has been an overall decline in the population of the old urban centres, a large increase in rural Malta, and a huge increase in the suburban area. Richardson has traced the trends of inward movement of population.
since 1891 from details of birthplace and residence in the Census Reports. He summarises the trends as follows:

areas of inward movement:
1. suburban (high)
2. northern rural (moderate)
3. south-eastern (moderate)
4. central (low)

areas of outward movement:
1. urban (high)
2. central, Zeblug-Qormi (moderate)
3. Mosta, Naxxar, Gharghur (moderate)
4. southern, Zurrieq-Zejtun (low).

stable areas: western Rabat, Dingli, Siggiewi.

This pattern is illustrated in fig. 7.

Migration

An examination of the pattern of migration is pertinent to a study of economic change, because it is to a certain extent a reflection of socio-economic conditions. But prevailing socio-economic conditions in a region are

Richardson notes that outward movement from the urban areas since 1891 is partially concealed by a high inward movement of foreigners, especially into Valletta and Floriana.
FIG. 7 INTERNAL MIGRATION SINCE 1891

KEY:

POPULATION MOVEMENT
IN OUT

LOW

MODERATE

HIGH

STABLE

AFTER RICHARDSON.
not the only factors which influence migration of its population. Such factors are primarily concerned in creating the desire to emigrate, but given that desire, the extent to which it is followed depends also on external factors, for example, the relative attractiveness of opportunities abroad (i.e. economic conditions in potential receiving countries), and, in the 20th century socio-economic policies in the principal receiving countries (e.g. which have led to the "White Australia" policy, and to the quota system in the U.S.A.). Maltese migration, especially if used as an indicator of economic conditions in Malta, must be regarded in the light of these various factors.

Details of migration for Malta may be obtained from several sources, which, however, vary considerably in reliability. One may arrive at a figure for inter-censal net migration by calculating the differences in populations enumerated in the various census reports, after making allowance for natural increase. This method provides a general picture of migration over a period, but gives no indication of short-term fluctuations, which may be considerable. Estimates of such short-term fluctuations may be derived from annual figures for a fairly wide range of related topics such as population size, natural increase, migration, passenger movements and passport
issues. These figures are to be found in the Blue Books, in Emigration Department reports (since 1920), and in the records of various Government Departments such as the Police and the Passport Office. The main drawback to the use of these annual figures is that they are often inaccurate, and lead to gross mis-estimations of both the level of emigration and of net migration. The figures are often available for only a limited period, and, where periods overlap, there are often considerable discrepancies. Moreover, it is often difficult to isolate the native Maltese populations from a total which may include foreigners and British Services' families, a difficulty which applies equally to some of the census reports.

A considerable amount of work has been done by C.A. Price and M. Richardson on the interpretation of migration figures for Malta, and in particular, on the assessment of source material, and the estimation of annual trends. For the purposes of this chapter, the figures for inter-censal net migration calculated from the census reports have been accepted as correct, and annual trends have been drawn after the suggestions of Price and Richardson (3). (See fig. 8).

There is little statistical evidence of migration before the period 1842-1851 (the first inter-censal period). Both the Knights and the French discussed the
FIG. 8  NET MIGRATION

A - INTERCENSAL NET MIGRATION

B - ESTIMATED ANNUAL TRENDS

AFTER RICHARDSON.
moving the moving of some of the Maltese population, but overpopulaton did not become really apparent until after the Napoleonic Wars, when the end of the war boom laid bare the economic consequences of the political changes of the previous twenty years. From that time, Malta has suffered periods of obvious overpopulation associated with economic recessions, alternating with occasional periods of economic boom during which permanent demographic pressure has been both relieved and obscured from view. The question whether overpopulation is the exception or the normal in Malta is discussed by Price in the Conclusion of "Malta and the Maltese".

In the pre-1842 period of the long economic recession and stagnation, which lasted almost without a break until the outbreak of the Crimean War, there was a net migration out of Malta. Price takes estimates of Maltese abroad in 1826 and 1842, and concludes that this movement amounted to about 700 or 800 per annum, although he himself admits that any absolute estimate is suspect.

This period of net emigration continued until the late 1880's (see table and graph), although there was a small net inward movement in the decade 1861-1871. This return of migrants was the result of bad social and economic conditions abroad (plague in N. Africa and plague and depression in Egypt), which caused many Maltese to return home. The decision to return may
have been helped further by the fact that during the Crimean War (1854-1856) and the years following, including those of the American Civil War, Malta enjoyed a very prosperous period.

Following this first main period of net emigration came one of net immigration which lasted until about 1905, during which over 5,000 people (net) returned to Malta (see Table and Graph). This was a period of extraordinary expenditure by the navy and the Public Works Department, and of actual labour shortage when foreign labour had to be recruited.

This was followed by a second major period of emigration which lasted from c.1905 until 1921. By this time, emigrants were beginning to move further afield, and whereas previously most emigration had been confined to the Mediterranean basin, especially North Africa, this new movement saw Maltese moving to rapidly developing countries such as Australia and the U.S.A. As many Maltese left the Islands during the decade 1911-1921, as had left during the whole period 1842-1891. It was at this time too that immigration policies in receiving countries began to affect movement. Australia temporarily closed its doors to Maltese between 1916 and 1919, and in 1921, the U.S.A. introduced its quota system, which not only limited considerably the numbers of Maltese
immigrants, but induced many Maltese already in America to return and rejoin families which had been prevented from following them to America. The years immediately following 1921 were thus years of net inward movement to Malta.

The emigration trend re-established itself during the late 1920's and the 1930's, although there was a period of re-immigration in the early 1930's associated with world depression. This trend was interrupted by the second World War, after which emigration was resumed at an unparalleled level, mainly to Australia. This exodus, which reached the figure of 9,700 (net) in 1954 followed considerable government encouragement in the form both of the technical education of intending emigrants and of financial assistance.

Looking at the period since 1842 as a whole, it has been characterised by the presence of a desire to emigrate, except for a short period during and after the Crimean War, and the period 1890-1905. Except for these years, the level of, and fluctuations in, emigration have been determined by external factors.

(See over)
Chapter 2. Economic changes associated with emigration and the growth of a dependent society.

With a very considerable dependence on outside sources of income, the Maltese economy is in a dangerous situation, for Malta is in no position to provide much of the currency needed to pay for the high level of imports should British expenditure in the Island further decline.

Local industries supply very little of the local demand for consumer goods. Maltese industries are small, and they suffer badly from foreign competition. Foreign-produced goods are generally better than the Maltese product, and only in the field of beer and mineral waters has Maltese industry had any real success. Against this success though, must be placed a decline in the local wine industry.

Efforts have been made recently to stimulate local
industries, although this is by no means a new problem. In 1912, the Royal Commissioners decided that a system of monopolies was the only way to encourage local development. Local capital undoubtedly existed, but was being invested abroad. The recent Labour Government extended a system of monopoly grants to fourteen industries, but the industrial situation as a whole cannot be said to have improved very much.

The monopolies holders produce the following:

1. Smoking pipes.
2. Flower and vegetable seeds.
3. Wire nails and metal screws.
4. Matches and match boxes.
5. Electrical equipment (wiring accessories etc.)
6. Handbags.
7. Cotton, woollen, artificial silk pieces.
8. Nylon stockings.
9. Rubber tyre re-treads.
12. Metal furniture, shutters, door and windows.
13. Refined edible oil.
14. Canned fruit (excluding tomatoes) and jam.

These industries have all remained very small, and although their development may be applauded as a step in the
right direction, only those dealing with local resources
may be regarded as significant, i.e. seeds, canned
fruit, and cotton pieces (insofar as locally grown
cotton is used). The other industries benefit the
economy very little because they use imported raw
materials and most of their products are sold locally.
In the case of nylon stockings, for example, all the
monopoly means is that Maltese women have to be content
with an inferior product.

Such small-scale industrialisation as has occurred
merely eases the financial burden of imports insofar as
production costs in Malta are fairly low, and articles
are marketed at a lower price than the imported articles
would cost (although this is not always the case, for
imported cotton cloth can be marketed at less cost than
that locally produced).

If Maltese industries are to assist the economy,
then they must earn money by exporting. The development
of primary exporting industries is largely inhibited
because of the lack of mineral resources in the Islands.
The only local resources which are capable of development
are agricultural (i.e. resulting from climatic advantage),
of which the seeds and fruit canning, mentioned above are
the only existing, and still very unimportant examples.

Otherwise, the only way Malta can develop export
industries is by processing and re-exporting material, which has been imported in the first place. In this way, the Maltese labour force may be termed a resource, and has been utilised by the Island in the specialised business of ship-repairing. This industry is to continue (with the Dockyard under private instead of naval ownership), but it is doubtful whether any other industries of a similar nature can be developed. In 1955 and 1956, when there was considerable speculation about the economic advantages of a closer political union with Britain, there were those who claimed that large British firms might be encouraged to open subsidiary establishments in Malta. Cheap labour, it was claimed, was one advantage. However, it must be remembered that apart from the Dockyard labour force, the Maltese people have no industrial tradition, and the advantages of low labour costs are of doubtful permanence considering the strong support in Malta for the policy of "economic equivalence" with Britain.

The purpose of this brief digression into the possibilities of industrialisation is to point out that there is little likelihood of a simple permanent solution of the economic dilemma being found. The economic problem is likely to remain, and the Maltese people will have to live with it. That being so, certain conclusions
about economic policy follow automatically.

In the past, money has always been ultimately available, to pay for imports. As has been indicated above in Ch. 1, periods of shortage alternated with periods of boom, but the booms came so regularly that it is difficult to decide in retrospect which was the normal state of affairs. On the whole, Malta has done well out of British rule. In a small group of islands, poorly endowed with natural resources, the population has trebled since the British took control, and the standard of living is generally good - even high, compared with similar neighbouring areas in the Mediterranean. In years of depression, Malta could be described as over-populated, but in the boom years this was not the case - e.g. between 1903 and 1906, labour had to be imported.

Now, however, with the prospect of declining British activity in Malta, the economy appears in a gloomy light. Unless new sources of income are found, Malta will be unable to support the present population at anything like its present standard. From this point of view, many of the present economic features, notably concerning the level and quality of imports and consumption, appear to be extravagant.

One result of 150 years of British rule is a considerable amount of anglicisation. Over such a long
period, cultural exchanges are to be expected, but there has been little "exchange" in Malta. Because the British in Malta were a ruling class, rather than have the upper class Maltese tend to assimilate British culture and emulate the British colonial way of life. This tendency is particularly noticeable amongst well-to-do Maltese living to the north of the Grand Harbour, especially in Sliema. As far as their way of life is concerned, these anglicised Maltese can no longer be regarded as "Mediterranean" in the fullest sense. Their concepts of standards of living have become confused with English standards, which are considered by them not merely "different", but "better". This social feature is most apparent in Sliema which has always been the most popular residential area for the English section. Most Maltese claim to despise the extreme "Sliema type".

Although the extreme "Sliema type" is an exception, the same process is evident in other walks of Maltese life, although to a less extent. Much of the emulation and borrowing remains at the purely cultural level (e.g. language borrowings, literature, the cinema), but in other cases the manifestation has an economic significance, and results in more sophisticated consumption. The most serious aspect of anglicisation is that the social policies of Maltese governments have tended to follow the examples
set by British governments, with too little consideration of the especial conditions which apply in Malta.

Thus the organisation and pattern of Maltese life has tended progressively to be geared to a British prototype which is not necessarily good for Malta. It is from this point of view that the writer discusses certain aspects of Maltese economic life, - a point of view which cannot be formed from a consideration of statistics alone, but which has been built up of impressions gathered during a considerable period of living amongst the Maltese people.

The first example considered is that of the dairying industry in Malta.

The development and position of the dairying industry in the Maltese economy

The traditional supplier of milk in Malta, as in most of the Mediterranean, is the goat. A booklet issued to commemorate the opening of the milk pasteurisation centre at Hamrun in 1938 recognised this fact - "the goat, for agricultural, climatic and economic reasons has always been the chief source of the milk supply of these Islands".

Most of this section is based on material gathered by the writer while carrying out an investigation for the Maltese Government into the relative importance of cows and goats in Malta. A Report, of restricted circulation, was prepared.
However, in 1908 it was established beyond doubt that the goat, through the medium of its milk, was the main carrier of undulant fever (Brucellosis Melitensis) to the population. Unhygienic methods of husbandry led to the disease becoming endemic in the goat population (about one in five), and the establishment of the milk pasteurisation centre in 1938 was an attempt to combat this.

Furthermore, a committee on nutritional standards in Malta which sat in 1937, recommended that the government should introduce milk pasteurisation in order to bring about increased consumption of fresh milk, especially among children and expectant mothers. Moreover, the consumption of imported tinned milk had increased considerably during the 1930 decade, and it was expected that increased consumption in fresh milk would result in a decline in imported milk, which amounted to a fairly high proportion of the value of total imports:

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>% of value of total retained imports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1930</td>
<td>£54,902</td>
<td>3.5</td>
</tr>
<tr>
<td>1938</td>
<td>£96,968</td>
<td>6.1</td>
</tr>
</tbody>
</table>

During the immediate post-World War Two period, several changes of far reaching importance were introduced.

Basically, the Maltese Government proceeded with its policy
of improving the quality of milk produced in the Islands. The eventual aim is to ensure that all milk is pasteurised and marketed by the M.M.U. (Milk Marketing Undertaking, a government department), and to that end, a larger and larger area of the Islands has gradually been "closed" to sales of raw milk directly from farm to consumer (i.e. these direct sales have been made illegal).

The Maltese government quotes the fall in the incidence of undulant fever in support of its policy. During the 1930 decade before 1938, the annual average of reported cases of undulant fever was about 1,400(2). In 1938 (the year of the opening of the pasteurisation centre) the number of cases fell to 985, and in 1939 to 873. In 1944, only 173 cases were reported, but this very low figure was the result of the slaughtering of a very large number of goats during the siege of Malta in the Second World War. After the war, when herdsmen were actively building up their herds again, the incidence of undulant fever increased immediately. In 1946, 2,410 cases were reported, but as post-war re-organisation continued, the incidence declined rapidly to 255 in 1957.

The following passages, selected from the annual Reports on the Health Conditions of the Maltese Islands give some indication of the importance of the milk pasteurisation scheme and of the size of the goat population...
to the incidence of undulant fever:

1938. "...It is difficult to gauge the part played by the pasteurised milk scheme in connection with the decline in undulant fever, but I am in a position to state that since the prohibition of raw goats' milk has become effective in Valletta no cases of the disease have occurred in this city. Sad to relate, an attempt has been made to cast doubts on the wholesomeness and safety of Government Pasteurised Milk...."

1939. "...The incidence of undulant fever diminished in Malta as a whole, while it was on the increase in Gozo where no pasteurised milk is available. Valletta and Floriana within which the sale of raw goats' milk is prohibited continue to be completely free from the fever...."

1940. "...There was a big drop in the number of deaths from undulant fever in Malta. The benefit of the Pasteurised Milk scheme had another demonstration in the facilities it provided to obtain milk which could be safely consumed without the necessity of boiling it, a procedure which would have been quite impracticable among people living in shelters or under other difficult circumstances...."

1943. "...Undulant fever shows the lowest incidence ever. The slaughtering of large numbers of the not-so-innocent goats during the Siege is responsible.... While
the disease continues to decline in Malta following the resumption of the pasteurisation of milk in the Government Centre, and the re-multiplication of the goats appears to be leading to an increase in the incidence of the disease in Gozo where no pasteurised milk is available...

1946. "...the highest incidence for the last ten years. Undulant fever had practically disappeared; many goats had to be slaughtered during the Siege... The disease has shown a marked rise since 1945, when the breeding of goats had been taken up again and raw milk became obtainable in larger quantities. The cases notified from areas where the sale of raw goats' milk is prohibited were few and they were all traced to the consumption of raw milk drunk or bought outside these areas...

1955. "...In December 1954, the village of Qormi was included in the area within which raw goats' milk may not be sold...the number of cases of undulant fever (in Qormi) has dropped from 95 in 1954 to 40 in 1955... people living in the village still prefer raw goats' milk (which can very easily be obtained from goatherds living in the outskirts...."

The scheme was not so successful in bringing about a reduction in imports of tinned milk. Of course, because of the war, the development of the M.M.U. was held up for
some years, but between 1948 and 1956, annual sales of liquid milk rose from 440,463 gallons to 2,463,922 gallons. During the same period, imports of tinned milk rose from 251,000 to 326,000 cases p.a.

In 1956, the Maltese Government continued its active steps to eliminate undulant fever and increase milk production. A plan was introduced whereby diseased goats should be exchanged for healthy cows (12 goats for 1 cow). In this way it was hoped that the brucella would be eradicated, and that enough milk would be produced to enable Malta to be self-sufficient in milk and many milk products.

In the same year the Ministry of Agriculture Food and Fisheries in Britain was invited to make a study of Maltese conditions and "to examine the possibility of developing a dairy industry, including the establishment of a Milk Marketing Board"(3).

One point of particular importance, about which there were sharp differences of opinion, was the relative importance of the cow and the goat to the development of the industry, bearing in mind repercussions on Maltese agriculture. Three authorities were consulted about this problem, the United Nations Food and Agriculture Organisation, the Department of Geography, Durham Colleges in the University of Durham, and the Animal Health Adviser
to the Colonial Office (b).

The opinions of those authorities may be summed up as follows:

(a) "...Irrigated fodder crops, especially legumes like alfalfa and burseem, may produce more income in milk per acre than do many intensive food and vegetable crops..."

(b) "...The land use policy should be based on a foundation of livestock production to ensure provision of the protein-rich foods of milk and meat..."

(c) "...cows should be gradually increased and the goat population correspondingly reduced. Since the cow is the most efficient milk-producing animal, the milk industry in Malta can be developed to a much higher economic level from cows than goats..."

(d) "...Although abandonment of the struggle to produce milk domestically has been voiced, the mission is convinced that with certain changes in policy a milk programme could be carried out successfully..."

(e) "...It is recommended that...the consumption of dairy products be significantly expanded..."

Department of Geography, Durham Colleges in the University of Durham

(a) "Maximum returns of land conservation can be most suitably achieved by commercial specialisation in high value crops for export rather than livestock and crop
production for general domestic consumption".

(b) "Livestock... have considerable physiological troubles in the hot summers".

(c) "... Goats are theoretically poor converters of fodder into milk, (but) they cannot be displaced by milk cows without offending the tastes of most Maltese for goats' milk and cheese, and making the uncultivable land almost totally unproductive".

(d) "For social and health reasons, the human consumption of high protein foods, milk in particular, has been encouraged. It has therefore often been suggested that further concentration on production of forage crops is necessary. It is probable that such a policy would be both uneconomic and impracticable. Malta... has little to gain by specialising in a production technique in which over three-quarters of the crops grown or imported for feed merely go to maintaining livestock in existence. Since land now grazed by sheep and goats is virtually unusable in any other way, they cannot be simply replaced by cattle. More cattle would mean less arable farming crops..."

(e) "... Local consumption of fresh cows milk could not be expanded more than 10 to 15% above the present level... The banning of milk imports and of the production of goats' milk would hardly be in the consumer's economic..."
Animal Health Adviser to the Colonial Office.

(a) "...The fact that two independent groups of agricultural experts, F.A.O. and Durham University, reached completely different conclusions is an indication that the question is not an easy one... I am inclined to the belief that something between these two extreme points of view is probably the correct answer..."

(b) "...most of the difficulties associated with the efficient production of milk could be best overcome by the development of several dairy farms of reasonable size... I simply cannot visualise hygienic milk production by the peasant farmer in Malta. This type of farmer should confine his attention to the keeping of goats in restricted numbers and imported beef cattle for fattening."

The decision reached was that the dairy industry should be based on both cows and goats, but that greater importance be attached to cows, because they are more efficient converters and also a source of meat supply. Goats were to be retained in reduced numbers only insofar as they are a means of utilising waste land for grazing.

The result, therefore, of twenty years of development in dairying in Malta has been a considerable change from
a situation in which there was little fresh milk produced commercially (all goats' milk), together with considerable imports of tinned milk, to one in which there is a large commercial production of fresh milk (mainly cows' milk), together with imports of tinned milk which have shown no signs of decreasing. In 1936 there were 33,707 goats and 3,523 cattle in Malta; in 1957 the figures were respectively 39,337 and 9,727 (although 3,684 of the cattle were store bulls in 1957. No break-down of the 1936 figures is available).

The Maltese dairy industry must now be accepted as an important economic fact. There is a considerable amount of capital and labour engaged in the pasteurisation and bottling plant, and in the milk collecting and distributing organisation. Furthermore, many herdsmen have become fully commercial milk producers, producing milk solely for the pasteurisation centre, and much arable farming goes into growing fodder for dairy animals.

In its initial stages, the industry was intended as an instrument of government policy of social welfare. Efforts on the part of the government to combat undulant fever by enforced pasteurisation of goats' milk, and attempts to improve the standard of nutrition in the Islands through increased milk consumption led to its rapid development. Without this enthusiastic government
support, it is doubtful whether the industry would have
developed naturally to such a level.

The first step in the policy was that of opening the
milk pasteurisation centre in 1938, but all subsequent
developments came after the second World War. In fact
the Maltese government was greatly assisted in the imple-
menting of its policies by the controls which had to be
imposed owing to abnormal wartime conditions. Government
control of foodstuffs was necessary for the purpose of
rationing, and after the war, many controls were retained
to facilitate the carrying out of policies of social
welfare (i.e. subsidies on certain foodstuffs such as
bread, sugar, cooking oil, which are still "rationed"
although in plentiful supply). In this way, the govern-
ment retained control of the distribution of tinned milk.
This was rationed, but not subsidised, and the profits
from its sale went to offset the losses made by the M.M.U.
sales of fresh milk.

However much a dairy industry may be considered
desirable from the social point of view, it need not
necessarily be efficient from the economic standpoint.
If the wealth of Malta is measured in terms of the ratio
between population and production, then Malta is a very
poor country. Visible assets are few, and because the
value of those invisible assets which have been of prime
importance in the past is dwindling, the optimum use of resources is essential.

The development of the dairy industry has brought about a state of affairs in which a large proportion of agricultural effort is directed towards milk production and the maintenance of dairy animals. Whether or not there is a conflict between social and economic interests will appear in an analysis of the costs of production of the dairy industry, and a consideration of alternative uses of agricultural resources.

Assessment of the Dairy Industry

The only pastures which are available for grazing in Malta are either those areas which are so rocky that no effort has been made to bring them under cultivation, or those areas which have for some reason been abandoned, in which walls have collapsed and soil has been eroded. The Maltese farmer recognises two types - (i) "Xaghra", where limestone rock surface predominates, and where there are only very limited deposits of soil, and (ii) "Moxa", where pockets of soil are larger and more frequent, and where, given enough incentive, a farmer may collect soil from several pockets and "make" a field. In these areas of "moxa" there is a natural scrub vegetation which is considerable in spring after the winter rain, but which dies in the hot dry summer. This vegetation is grazed by
goats and, but for that, most of the rocky areas would be completely unproductive. Most goatherds graze their animals regularly, so long as the vegetation remains, on wasteland either owned by themselves or rented specifically for that purpose every year, no other crop being taken off it. Sometimes as much as £30 per annum is paid for this type of land. The practice is a notable feature in Gozo, where there are goatherds who feed their animals nothing but concentrates in the pens and rely on wasteland grazing for roughage.

This wasteland grazing is important only in the case of goats, most of which have nevertheless to be fed extra greenstuffs (either fresh or dried). There is no grazing in Malta for cows, for which green fodder must be grown as a field crop and fed to the animals in their stalls. (Occasionally goats are given forage crops on the hoof).

The most important fodder crop is "silla" (or sulla, a type of legume which grows to a height of three to four feet), although wheat, barley and vetches are also grown for fodder. A considerable proportion of land is devoted to the production of forage crops. Farmers who have dairy herds of cows or goats generally grow little else, retaining only a small portion of land for kitchen crops, and perhaps a small field for a cash crop, usually potatoes. In many cases the herdsman is not self-sufficient
in fodder crops, and the buying of extra fields of silla is a common practice. For this reason, even farmers with no large herds of their own are involved in fodder production for the dairy industry, especially around Zejtun, Zabbar and Gormi, where there are many landless milk producers. (The reason why these three villages have so many large goatherds is historical. Because of their proximity to the towns around the Grand Harbour, herds from these villages used to travel there daily when door-to-door selling of raw milk "on the hoof" was permitted).

Silla has for centuries been an important dual-purpose crop in Malta; not only has it always been the most popular fodder(5) but as a legume it has an important place in crop rotations. With the increase in the numbers of dairy animals, silla has been planted even more extensively. Before the second World War, an estimated 9,500 acres of silla were planted every year; since the war the acreage has increased to 11,000 in 1957(6).

Apart from the increase in locally produced green fodder, imports of feeding concentrates amounted to over £2½ millions, compared to less than £400,000 in 1938. Even considering rises in price, this is a considerable increase.

There is no efficient standard method of feeding dairy animals in Malta. Even among the 9+ herds which
were investigated by the writer(7) there were considerable variations. Furthermore, dietary calculations for cattle showed that considerable overfeeding in protein was almost invariable, and in starch, general. Overfeeding was suspected in the first place from the general practice of feeding the animals almost continuously. The writer was not the only one to reach this conclusion, for the Report on the Dairy Industry in the Maltese Islands, 1956, states "...The herdsman is in great need of advice about the optimum level of feedstuff to be given to his animals. Animals are fed indiscriminately both as to the type of feed and to the quantity. No doubt an analysis of the excrement of the animals would show conclusively the extravagance and the uneconomic use made of feedstuff. Moreover, differentiation in the feed is not made among the various conditions of the animal - the heifer, the cow yielding 2 gallons a day, the cow yielding 4 gallons a day, the dry cow, etc..."

Farmers seem to have little idea of the relative nutritive values of feedstuffs such as beans, cake, bran, etc., and many follow the fallacious principle of "more feed - more milk". Those herdsmen who have recently changed from goats to cows as a result of the government exchange scheme are particularly guilty of poor feeding methods. The cows which the Maltese government purchased
for exchange were pedigree Dutch Freisians. They were selected because of their fine reputation as a dual-purpose animals, i.e. they are good milkers, and also good beef animals. But they are pedigree animals, whose qualities have been bred, and which require careful management if their pedigree standards are to be reached. Such animals would seem to be wasted on Maltese farmers who have neither the experience nor the facilities to manage them. Maltese farmers are much more at home with the goat (certainly feeding methods are much more uniform amongst poatherds and the tradition of poatherding is many centuries old).

The climate of Malta does not make it easy to rear dairy cattle. The critical range of acclimatisation for European cattle is about 65°F to 70°F. The monthly mean temperatures in Malta exceed 70°F from June to September inclusive, and during these months the day temperatures exceed 80°F for many hours. In contrast, the goat thrives in Malta.

The dairy animals are kept tethered in stalls during a large portion of their lives. Most of the goats are exercised daily, especially during the Spring months when the limited natural pasture is at its prime, but many cows never leave their stalls. There is no grazing for cows, and only in rare instances are they exercised. As a result
of this, many cows have physical deformities, e.g. swollen knees, splay hoofs and lameness, although unbalanced feeding may be a contributory factor\(^8\).

The milking life of the cow in Malta is short. On average it is about six years. The reason for this is due not only to the climatic element mentioned above, but also to unsatisfactory methods of husbandry.

The price of milk is not fixed in relation to any form of assessed costs. There was considerable difficulty in 1938 when the M.M.U. began operating, over the fixing of prices to be paid to herdsmen for goats' milk. No accurate production costs were available, and the price was eventually settled by negotiation, taking into account prices paid by the public in previous years. In 1938 and 1939, the price paid to herdsmen for goats' milk varied from 1/8 to 2/- per gallon. The variation was caused by the difference in yield throughout the year; there is a flush of milk production in the Spring which tails off during the Summer, and the price rose and fell as production decreased or increased. In 1956 the price varied from 5/10 to 6/4 per gallon for goats' milk and from 4/7 to 5/1 for cows' milk. The reason why the price paid for cows' milk is lower bears no relation to differences in assessed costs. It is largely historical, and dates from the period when there was a very strong consumer
prejudice against cows' milk.

In 1956, milk was retailed to the public at 6/- per gallon for goats' milk and 4/8 per gallon for cows' milk. This meant a certain consumer subsidy merely on differences of purchase and selling prices, but other expenses have to be taken into account. There are the running expenses of the M.M.U., which must count as a consumer subsidy too. Furthermore, milk sales are consistently less than purchases by between 5% and 15% each year. In many cases during the flush season in spring and early summer milk supplies are more than the M.M.U. can cope with or have need for, and milk is tipped away after purchase. This may be considered as a concealed producer subsidy.

In the nine years between 1947 and 1956, the M.M.U. made a profit in only four years. In those years, the profit was due entirely to sales of imported tinned milk, and in fact a loss was made in the liquid milk department every year, totalling c.£800,000 in all. This was the total amount, therefore of producer and consumer subsidies (about half to each). As a subsidy per gallon on sales of liquid milk it averages 1 throughout the period (i.e. milk has been costing the M.M.U. between 20% and 25% more than the price at which they sell it).

It has been claimed that this subsidy can be reduced
if certain changes take place. Foremost amongst these is that milk consumption in Malta should increase. If consumption does not rise, then the subsidy will increase. The reason for this is that milk production itself is expanding, and the M.M.U. is committed to take all the milk from the herdsmen. This measure was introduced during the early stages of the development of the industry, when the government was encouraging milk production. The herdsmen were quick to see the advantages of a regular fortnightly cheque, and there followed a boom in milk production. Many farmers too preferred a regular income from milk to an uncertain cash crop income and turned their emphasis to dairying. To many farmers who were considering leaving the land, the M.M.U. came as a great boon, and the writer has spoken to many who would have emigrated but for the development of dairying.

The result now is that the M.M.U. is embarrassed with too much milk during the flush season, which it must nevertheless accept. Wastage (and therefore costs) would be reduced if more milk products were manufactured (in 1954 and 1955 just over one tenth of milk purchases went into manufactures\(^{(9)}\), but any manufacture in the winter months would endanger liquid milk supplies.

The seasonal fluctuation of milk production is a serious problem, and the policy of exchanging goats for
cows is partly an effort to level out production. Although herdsmen insist that goats will only kid in the spring, it is hoped that calving will be more distributed through the year.

The result of all these developments in milk production has been to bring about a considerable change in the consumer sector in a very short time. Since the second World War, Malta has been flooded with new supplies of liquid milk. Much milk is given away to hospitals, and schoolchildren receive free milk. Milk disposals of this kind add to the subsidy, and so the M.M.U. is putting out considerable propaganda in an effort to increase sales. But milk consumption at this level is abnormal to the Maltese (milk goes sour very quickly in the summer), and furthermore the local preference is for goats' milk. Until 1957, similar quantities of pasteurised cows' and goats' milk were sold despite the price differential, but when the sales prices were equalised at 8d. per pint, the demand for goats' milk was "spontaneous and immense"(10) and there was a shortage.

Efforts to bring about an improvement in standards of nutrition have resulted in an attempt to impose milk-drinking habits of the English pattern on the Maltese. Quantities of milk drunk by the Maltese have been compared unfavourably with those consumed in England, and eventually
in 1956, as a result of an investigation by a member of the British Ministry of Agriculture, Fisheries and Food, the re-organization of the Maltese dairy industry was planned on the English pattern, despite the very different conditions which obtain in Malta.

The standard of husbandry of the milk producers is low, and although education in methods of breeding, feeding and hygiene is slowly beginning as a result of the establishment of an advisory service, the maintenance of dairy herds is foreign to Maltese farming tradition. Furthermore, the Maltese environment, from the point of view of climate and absence of grazing, militates against the establishment of a dairy industry based on cows in the British style.

Changes in producing and consuming sectors have together brought about a completely new situation in which there is an artificially created market for milk and an artificially created new dependence of many farmers on milk and fodder production. This situation has only really become apparent during the last decade, but already in 1956 one of the arguments in support of developing the dairy industry was the dependence of many farmers and herdsmen on dairying for a livelihood, either directly or indirectly, - i.e. the dairy industry is maintained partly in order to support a situation which
overt its very existence to the appearance of the dairy industry in the first place. Such an argument was put forward in the Report on the Dairy Industry in the Maltese Islands, 1956: "...Finally, in this matter of whether a dairying industry should continue, it is noteworthy that a very large section of the farming industry is related directly or indirectly to dairying. The fields to a very large extent are used for growing animal fodder and in return the fields are fertilised with the dung of the dairy animal. The cowshed and goatpens are installed. There is also much capital "sunk" in the ownership of dairy animals, and the M.M.U.'s assets are over £150,000. The producer depends greatly on the fortnightly payment from the M.M.U. for his milk. There is no doubt that much economic and social distress would be caused if the dairying industry were to be removed...

It must also be borne in mind that there is an annual consumption of liquid milk in excess of 2 million gallons..."

It is doubtful whether, all considered, the dairy industry in Malta can be considered as an optimum use of resources. The Report quoted above also mentions in support of further developments of dairying "...the enormous increases of tinned milk imports (with the consequential addition to Malta's adverse balance of
payments)..." In this respect it is important to note that more positive good could be achieved by directing agricultural effort into the production of vegetable and fruit cash crops for export. In this way the natural climatic advantages of the Islands would be better utilised, and the type of intensive farming which would be necessary would demand a similar application of labour to land resources as that which over centuries has built up and conserved the soil of the Islands.

Such a policy of land utilisation would result in an increase in Malta's income from its only significant natural resources. A system which emphasises fodder production unduly is therefore wasteful of resources, the benefits of which are consumed partly by a large animal population and partly by an artificially large human consumption of milk.

The consumption of tinned milk will not be replaced by increased production of fresh milk, for the former is mainly drunk in tea and coffee for its flavour, rather than for its nutritive value.

Therefore one may say that in pursuing social and economic policies based on English counterparts and geared to English standards, the Maltese government in its insistence on the development of a dairy industry, is not promoting the optimum use of resources. The recent
approach to the problem has been directed towards making the dairy industry itself economically sound, rather than planning the best long-term use of land. Furthermore, if the dairying industry is maintained because of its importance to the producing sector of the community, then the interests of the national economy will have been partly subordinated to producer rather than consumer interests.

**The Fishing Industry**

A considerable quantity of fish, both fresh and preserved, is imported into Malta every year. The value of these imports amounted to only £291,000 in 1957 (i.e. about 3% of the total retained imports of food, drink and tobacco), but it is nevertheless strange that as an island Malta should not be self-sufficient in this food commodity, more especially since the islanders are Roman Catholics, most of whom eat fish on Wednesdays and Fridays.

Compared with this level of imports, the wholesale value of Maltese fish landings in 1957 was only £168,285. The industry supplies an average of only 9 lbs. of fresh fish per head per annum, and it is for this reason that imports are necessary. Imports are mostly in the form of processed fish (mainly salted fish from Japan) because good storage facilities are lacking in Malta, although some fresh fish is landed from Italian and North African
vessels (amounting to 1½% of the value of total fresh landings in 1957) (5).

In the light of this dependence on foreign supplies, this section examines the Maltese fishing industry and assesses the extent to which natural resources are being fully utilised.

The Fisheries

"...Geographical position, in conjunction with the mistaken belief that the sea abounds in fish is the cause of much criticism of the industry..." (11) The Mediterranean Sea is not well supplied with fish, because (a) there is a scarcity of micro-organisms upon which fish feed, and (b) the waters of the Mediterranean are very heavily fished.

In the vicinity of Malta, fishing grounds are limited, and although there is better fishing in more distant grounds, they have not been fished so far by the Maltese for reasons which become apparent below.

There are only very restricted areas of sea-bottom fisheries around Malta. Hurd Bank to the east is the only considerable area less than 50 fathoms, apart from a narrow shelf surrounding the Islands (Fig. 9). This coastal shelf is at its narrowest off the precipitous west coast (except in the Filfla region) but it broadens out to as much as five miles north-east of Comino,
FIG. 10
LONG DISTANCE FISHERIES

FIG. 9
LOCAL FISHERIES

KEY TO FISHING CENTRES:
A. Marsaxlokk
B. Xemxija
C. Mellieha
D. St. Paul's Bay
E. St. Julian's
F. Wied il-Zurrieq
G. Marsaskala
H. Mellieha

AFTER BURTON.
Mellieha and St. Paul’s Bay. In the south-east this shelf extends eastwards and links up with Hurd Bank off Marsaxlokk.

These inshore shallows and Hurd Bank are heavily fished because away from them the sea-bed dips steeply, and there are no more bottom fisheries before Sicily, Tunisia, Medina Bank or Lampedusa are reached (Fig. 10). Within the territorial waters of Malta, the activities of the Armed forces interfere with fishing. Apart from a narrow corridor for aircraft approach, no sea area within 12,000 yards (c.7 miles) of the coast is free from bombing, shelling practice, etc. Warnings of such activities are given, but as there is no compensation for loss of earnings, the fishermen usually ignore the warnings and accept the dangers as an extra occupational hazard.

There have been no casualties so far, but damage to fish stocks must have been considerable ("...on two occasions, after bombing attacks had been carried out upon Filfla, over one hundred and fifty pounds of high-grade fish were recovered by local fishermen. A much greater quantity must have sunk to the bottom or have been swept away by the current...") (12)

Up to the present time the sea-bottom fisheries have been of only minor importance, because the Maltese fishermen concentrate upon surface fishing. However, shallow
waters are important for one branch of surface fishing, "lampara", which is only carried on over shallow banks (see below).

Sixty-eight fish have been described as "common Maltese food fishes"(13), but the bulk of the local catches is made up of only a few. The commonest are as follows:

<table>
<thead>
<tr>
<th>Maltese</th>
<th>English</th>
<th>Latin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lampuka</td>
<td>Dorado</td>
<td>Coriophena hippurus</td>
</tr>
<tr>
<td>Fanfru</td>
<td>Pilot-fish</td>
<td>Naucrates ductor</td>
</tr>
<tr>
<td>Sawrella</td>
<td>Scad</td>
<td>Trachurus mediterraneus</td>
</tr>
<tr>
<td>Kavalli</td>
<td>Mackerel</td>
<td>Scomber scombrus</td>
</tr>
<tr>
<td>Vopi</td>
<td>Bogue</td>
<td>Buthyurus aletteratus</td>
</tr>
<tr>
<td>Tonnagg</td>
<td>Little Tunny</td>
<td>Euthyurus aletteratus</td>
</tr>
</tbody>
</table>

These are migratory fish and are taken as shoals pass the Maltese Islands. Each of them, therefore, has its "season".

**Background of the Industry - centres, fleet, methods.**

The fishing centres enumerated in the official records, with the numbers of craft registered there in 1957 were as follows:
Factors influencing the location of these fishing centres are the nature of the coastline and the proximity of shallow-water fishing grounds (Fig. 9). Harbours are plentiful in the east and north-east of Malta, and the coastal shelf is at its broadest there, with the result that most of the important fishing centres are located in that area, including Marsaxlokk, the largest. Marsaxlokk owes its pre-eminence to its sheltered harbour in Marsaxlokk Bay opposite Hurd Bank.

It is significant that the only fishing centre of importance along the steep west coast is Wied iz-Zurrieq. The sea inlet at Wied iz-Zurrieq is very narrow, and there is only one small slipway. The traditional strength of the fishing industry there is a comment on the importance of the broadening of the coastal shelf between Malta and

<table>
<thead>
<tr>
<th>Location</th>
<th>Powered Boats</th>
<th>Non-powered Boats</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valletta &amp; Marsa</td>
<td>36</td>
<td>26</td>
<td>62</td>
</tr>
<tr>
<td>Msida &amp; Pieta</td>
<td>17</td>
<td>32</td>
<td>49</td>
</tr>
<tr>
<td>Gzira &amp; Sliema</td>
<td>20</td>
<td>29</td>
<td>49</td>
</tr>
<tr>
<td>St. Julian's</td>
<td>40</td>
<td>34</td>
<td>74</td>
</tr>
<tr>
<td>Gnejna &amp; Ghajn Tuffieha</td>
<td>10</td>
<td>6</td>
<td>16</td>
</tr>
<tr>
<td>St. Paul's Bay</td>
<td>50</td>
<td>32</td>
<td>112</td>
</tr>
<tr>
<td>Mellieha &amp; Marfa</td>
<td>18</td>
<td>38</td>
<td>56</td>
</tr>
<tr>
<td>Vittoriosa, Senglea &amp; Kalkara</td>
<td>35</td>
<td>53</td>
<td>88</td>
</tr>
<tr>
<td>Marsaskala &amp; Ramla</td>
<td>64</td>
<td>95</td>
<td>159</td>
</tr>
<tr>
<td>Birzebbuga</td>
<td>29</td>
<td>25</td>
<td>54</td>
</tr>
<tr>
<td>Ghar Lapsi</td>
<td>15</td>
<td>8</td>
<td>23</td>
</tr>
<tr>
<td>Marsaxlokk</td>
<td>122</td>
<td>126</td>
<td>248</td>
</tr>
<tr>
<td>Wied iz-Zurrieq</td>
<td>43</td>
<td>34</td>
<td>77</td>
</tr>
</tbody>
</table>

TOTALES 529 538 1,067
Filfla. Wied iz-Zurrieq is declining in importance because the larger craft which are now being introduced cannot be handled there.

Just over half the craft registered as fishing vessels in 1957 were power driven. Most of them were open boats, and only a dozen of them exceeded 45 feet in length. Most craft are of the traditional "luzzu" or "furilla" design, with a high stem- and stern-post, and a low freeboard except at the bows. They are almost flat-bottomed amidships and nearly all open. Even with motors such craft are not suitable for anything except short voyages, and fishing activities in them are very dependent on the weather.

Several motor fishing vessels were purchased from the Admiralty in an attempt to increase the range of operations and secure greater independence of weather conditions, but these boats are not ideally suited to Maltese methods. Following the recommendations of the Burdon Report, the Maltese Government has purchased seven trawlers since 1955.

A great variety of methods are in use by Maltese fishermen, but the most important are "kannizzati" and "lampara". "Kannizzati" accounts for about 40% of total landings (estimate made in 1954), but it is very seasonal. Its use is confined to the months August to
December when lampuki and fanfru are migrating, and towards the end of the season bad weather curtails operations. Lampuki and fanfru collect around any floating object, so floats are set at intervals and the fish are taken with an encircling seine net. A similar seine net is used to take vopì, kavalli and savrelli in the summer months from April to August. This is the "lampara" season, when bright lights are used to attract the fish at night.

In addition to these two main methods, a great number of minor techniques are in use, and are described fully in the Burdon Report.

The Maltese fishermen possess a remarkable diversity of methods, and a very extensive knowledge of local fisheries, but there has been no contact with the fishing industries of other countries. This is partly the result of the low standard of education in the industry, and consequently the Maltese have not made use of improvements in techniques and equipment which would have rendered their traditional methods more efficient. In 1954 for example, Burdon found that no Maltese fishermen were qualified skippers, and the only Maltese vessel which fished the Lampodusa and Sicilian grounds was skippered by an Italian.

The organisation of the industry is still largely traditional, and although more powered craft are being
used every year, most of them are still small. Few are
decked, and fishing is therefore largely controlled by
weather conditions. As a result of the lack of suitable
craft and qualified personnel, fishing is generally
restricted to Maltese territorial waters.

The most common Maltese methods of "kannizzati" and
"lampara" are related to the appearance of migratory fish
in Maltese waters. No attempt is made to follow the
fish, and supplies in Malta therefore suffer considerably
from seasonability (Fig. 11A). Supplies are high during
the "kannizzati" season, but fall rapidly in December and
remain low all winter. A steady increase in catch in
spring rises to a summer peak at the height of the "lampara"
season in July and is followed by a slack period in
August between the two main seasons. Foreign landings
are heaviest during the slack winter period (Fig. 11B).

The small scale of operations and the dependence upon
good weather are also responsible for considerable day-to-
day variations in catch, with consequent sharp variations
in prices, unpopular with fisherman and consumer alike
(Fig. 11C).

After the second World War, the loss of manpower in
the fishing industry gave cause for concern. The decline
in numbers of fishermen in recent decades is as follows:
FIG. II A
MONTHLY AVAILABILITY OF FRESH FISH, AVERAGE 1949-1953

FIG. B
LOCAL AND FOREIGN LANDINGS, 1953

FIG. C
LANDINGS AND PRICES JUNE 7TH-12TH, 1954.

AFTER BURDON.
Moreover, in 1957, only about one half of the fishermen were estimated as full-time, for the occupation is very seasonal, with an influx during the "kamizzati" season. The fishing industry accounts for less than 1% of the male working population. Increasing costs and declining profits had made the industry unattractive and prevented development from within (e.g. Burdon instances a bale of cork which cost £1.5.0. in 1939, but £8 in 1954).

Now however, as a result of official interest and financial assistance through subsidies, the industry is entering a new phase. The Agriculture and Fishing Industries (Financial Assistance) Act, 1956, introduced a system of money grants towards the purchase of fully-decked boats or the improvement of existing equipment, and a Fishing Equipment Supply Service was initiated to provide new and improved materials for gear. Financial assistance has now provided a fleet of seven trawlers, one of which is to act as a training and fisheries research vessel.

A plan to develop Marsaxlokk as a fishing port (including the dredging of deeper quays and approaches) was a natural corollary of this policy, for at present the larger new craft cannot be berthed alongside the
quay. This development has now begun.

Before the development of official interest in the fishing industry during the last few years, it had existed in isolation. Its position can in some respects be compared with that of agriculture in Malta, which was also largely ignored by governments until the dangers of excessive dependence on outside sources of income (i.e., the Dockyard, garrison etc.) were realised. In recent years the same interest in the development of local resources which initiated a drive to improve farming has been applied to the fishing industry.

The reason for the lack of any significant development in the fishing industry until this time is to be found partly in the absence of a strong fishing tradition in Malta. It must be remembered that the Maltese people, despite the close proximity of the sea, are not by tradition fisher-folk. This fact, and its consequences on the growth of the settlement pattern, has been pointed out in Section A Chapter 3. Moreover, the fishing community itself is not always distinct as an occupational group even in the main fishing settlements, where many engage in fishing only as a part-time occupation.

Because of this, the traditional small working units have remained up to the present day. Fishermen have been content to fish the local waters (practically all the fish
landed is caught within 25 miles of Malta) without going further afield in slack periods.

The result of this was a poor and irregular supply of fish to the consumer market, where the demand could only be met through imports.

**The Wine Industry**

The history of the Maltese wine industry shows several peculiar features which demonstrate how in this, as in other fields, by no means the best or fullest use has been made of limited agricultural resources.

Figure 12 shows the distribution of wineries in the Island, together with the production (estimated in some instances) of each locality, in relation to the main vine-growing areas. The outstanding fact is that although the majority of the wineries are located in rural Malta, the production from those around the Marsa is far greater than that of all the others combined. This situation would be understandable if the Marsa wineries had developed as part of an export trade in wines. This is not the case and, until 1955, Malta imported wines to the extent of almost £100,000 p.a.
The recent import trend is one of decline, but efforts to develop an export trade have met with no success so far.

Moreover, neither the poor quality of Maltese wines, nor the existence of a large modern brewery, producing a variety of reasonable beers, is typical of the Mediterranean region, where the grape grows well and where brewing techniques are consequently poorly developed. In most Mediterranean lands where the vine can be cultivated successfully, wine is considered a normal beverage, and a large number of local varieties have a good reputation. In Malta wine is drunk regularly by only a small section of the population, mainly the lower social groups such as farmers and labourers. Those wealthy Maltese who do drink wine buy high-quality imported wines mainly from Italy. In addition to this group consuming imported wines, a large body of middle-class Maltese drink beer.

The increase in beer consumption which resulted in the building of two modern breweries in Malta after World War II may be ascribed to social rather than economic

<table>
<thead>
<tr>
<th>Year</th>
<th>£</th>
<th>Year</th>
<th>£</th>
<th>Year</th>
<th>£</th>
</tr>
</thead>
<tbody>
<tr>
<td>1918</td>
<td>78,160</td>
<td>19</td>
<td>180,017</td>
<td>51</td>
<td>181,264</td>
</tr>
<tr>
<td>19</td>
<td>180,017</td>
<td>44</td>
<td>275,228</td>
<td>52</td>
<td>131,428</td>
</tr>
<tr>
<td>20</td>
<td>211,562</td>
<td>45</td>
<td>348,754</td>
<td>53</td>
<td>99,940</td>
</tr>
<tr>
<td>21</td>
<td>155,570</td>
<td>46</td>
<td>450,963</td>
<td>54</td>
<td>92,809</td>
</tr>
<tr>
<td>25</td>
<td>106,104</td>
<td>47</td>
<td>396,995</td>
<td>55</td>
<td>65,850</td>
</tr>
<tr>
<td>30</td>
<td>103,770</td>
<td>48</td>
<td>306,257</td>
<td>56</td>
<td>67,060</td>
</tr>
<tr>
<td>35</td>
<td>77,163</td>
<td>49</td>
<td>253,684</td>
<td>57</td>
<td>91,000</td>
</tr>
</tbody>
</table>
causes. This increase is part of the anglicisation of consumption habits which has come about through the presence in Malta of British servicemen and their families. If Maltese wines had been of good quality, then it is possible that beer-drinking would not have ousted wine to such an extent.

The reasons for the low state of the wine industry are therefore

(a) anglicisation, i.e. the increase in popularity of beer, and

(b) the poor quality of Maltese wines.

It is easy to understand the process of anglicisation. Beer-drinking is especially a feature of urban and suburban Malta, where contact with the British has been greatest, and when brewing began on a very small scale in 1926(14), much of the stimulus was provided by the presence of servicemen in the Island. Moreover, once the habit had begun, it was quickly realised that beer had several advantages over wine, especially in the bars where it could be chilled during the summer.

It is less easy to understand why, in a Mediterranean country, the wines should be of such poor quality. The reasons are largely historical, for although the vine flourishes in Malta, the emphasis placed on viticulture has varied considerably during the last 200 years.
Vineyards are held to have suffered during the period of raiding by Barbary Corsairs, but with the restoration of security under the Knights, viticulture expanded again and Malta "began to produce its own wine and even export some to other countries" (15).

Towards the end of the 18th century, the boom in the cotton trade with Spain (see Section B) resulted in the uprooting of many vineyards and the planting of cotton, so that "throughout the greater part of the nineteenth century, the production of grapes became limited to their use as fresh fruit for the table and the manufacture of wine ceased altogether, the Island becoming entirely dependent for its supply on the produce of Sicily and Greece" (16).

The value of cotton as a cash crop declined during the first half of the 19th century, and although there was another temporary boom during the American Civil War, it had ceased to be important by 1870. Some land reverted to viticulture, but by this time potatoes and vegetables, especially tomatoes, had become popular, and much land was devoted to the production of these crops rather than to the planting of vineyards, because the returns were quicker.

However, "steadfast progress in vine plantation" was recorded in 1904 (17). This progress was maintained until
1919, when there occurred an outbreak of Phylloxera. It was detected first in Nadur, Gozo, and quickly spread throughout both Islands. Total reconstitution of vineyards on resistant stock was necessary and the establishment of nurseries of American vines for the provision of root-stocks was undertaken by the Department of Agriculture. However, the farmers were not very enthusiastic about replenishing vineyards, and extension was slow until recent Government encouragement through subsidies and advice led to considerable planting of vine rootlings.

During this period, therefore, the vine has suffered first through competition from other crops, notably cotton, potatoes and tomatoes, and then from disease. The value of the vine as a crop on second quality land has largely been ignored in favour of sulla and other forage crops. As a result, the tradition of viticulture has not been strong in Malta, and there has been no selection and breeding of strains. Despite the unique opportunity afforded by the Phylloxera epidemic, replanting of vineyards was not carried out with any uniformity, and as a result grapes vary considerably in type and quality. Generally the emphasis placed by the Maltese farmer has been on quantity rather than quality, and the harvest produces a winepress which lacks vintage qualities.

In 1934, Stockdale(18) recognised that this was the
main criticism of Maltese vineyards, — "...Plantations consist of a mixture of varieties. The number of varieties is very considerable, and little account is taken as to the types actually used for wine making..."

The history of the wine industry itself is closely related to that of the vine. After the replanting of vineyards began around 1870, wine production increased, and by 1911, production in Gozo (where the vine has always been more popular than in Malta) was estimated at over 25,000 barrels (19). The pattern of wineries which developed was that of a large number of small factories in the rural areas. In Gozo at the beginning of the 20th century there were about three or four hundred (20). Increased Maltese production resulted in a decline in imports. In 1911, the Malta Chamber of Commerce stated that this decrease was assuming "alarming proportions" because of "increasing manufacture of wine from local grapes" (21).

In the same year (1911) the Maltese Government enacted an ordinance (22) introducing a large number of sanitary regulations which had to be complied with by vintners. The effect of this ordinance on the industry was tremendous. In Malta, all factories except one stopped working immediately (23) and by 1915, of the three to four hundred Gozo wineries, only 150 remained in production (24).
A further important event took place in 1913, when a group of wine merchants began importing bulk wine from Greece and Cyprus which they marketed at low prices(25). These merchants were probably encouraged to take this step by the sudden decrease in local production. Any recovery by the older wineries in the face of this new competition was severely halted by the Phylloxera outbreak of 1919, so that the new warehouses around the Marsa dealing in cheap imported wine were able to consolidate their gains. The value of wine imports rose from £78,160 in 1918 to £211,562 in 1920.

Since this period, the demand for local wines has steadily decreased. The poor quality of the wines encouraged the increase in beer-drinking, and only in the lower economic groups has local wine retained its place. It is only really in the farming community that the tradition of wine drinking remains strong (many farmers still make their own wine(26)), and to this group the cheapness of the local product is the most important factor. There is therefore no incentive to the vintners to improve the standard of the wines, and they take no interest in improving the quality of the grapes produced by the farmers.

In the past viticulture has suffered through the neglect of agriculture in general. Stockdale(27)
recognised the possibilities in 1934:

"...Lands planted with vines are... reported to be to the landlord, as well as to the tenant, almost as remunerative as land under irrigation..."*

"...For the second class lands, there is no doubt that a more valuable crop could not be found...."

"...the cultivation of the vine is essential to the agriculture of Malta, and... there are possibilities that lands at present not cultivated might be brought under vine culture..."

"...steps should be taken to protect (the wine industry) against cheap imported wines made from dried fruit and sugar..."

"...It is unlikely that Malta and Gozo will be able to produce wines equal in quality to well-recognized brands of wines prepared from fresh fruit in the better-known wine producing countries of Europe, but there is no reason why improvements should not be effected and a very useful class of wine developed for general use locally..."

In order to bring about the necessary improvements, the services of an oenologist would be necessary to advise

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*In 1957, Mitchell(28) found that in most cases, the returns from viticulture were greater than those from cereal or fodder production, and approached those of fruit production.
on the standardisation of varieties of vine. Stockdale mentioned in 1934 that steps were being taken in this direction, and it is interesting to note that in 1957, the arrival of an oenologist was still anticipated.

The history of the vine industry therefore demonstrates how the anglicisation of upper- and middle-class tastes together with general neglect of agriculture have resulted in the failure to secure optimum use of agricultural resources. Because the large vintners now take local grapes, the vine is a profitable crop in Malta and there are now many vineyards on good land. This may be considered poor use of resources in that good land is used to produce grapes which in turn produce only poor wines for limited local consumption. At the same time, all the requisites for brewing have to be imported, even barley, because the Maltese crop is unsuitable for malting.

Finally it is interesting to note that the wines produced in Gozo are superior to Maltese wines, and wine is more widely drunk in Gozo than in Malta. This difference between the Islands may be ascribed to two factors:

(i) less anglicisation in Gozo, with no urban and suburban groups to turn to beer-drinking as in Malta.

(ii) less competition to local produce from the newer
large wineries in the Marsa area, so that the traditional industry has remained stronger in Gozo.

Chapter 3. Economic changes reflected in occupational characteristics.

The growth of population in Malta, and regional changes in distributions, have been outlined in Section D, Chapter 1. This chapter examines changes in the occupations of the population in an attempt to discover the internal changes which have come about in response to developments of the Maltese national economy.

The statistics which have been used as a basis for this account are the figures of occupations which have been published in the various Census Reports. There is a danger in using such material of awarding over-great significance to the years of the Census Reports, and assuming that changes occurred at the times the censuses were taken. Provided that this is understood, that the Census Reports do no more than describe conditions at a particular date, that significant changes may occur at any time in a ten year period, and that some events, especially of an economic nature, may be missed entirely by decennial censuses, then the census figures provide a good framework for a general background.

In any inter-censal comparison of this nature, if any valid conclusions are to be drawn, one must be certain
that systems of classification do not alter between censuses. This may be a very doubtful assumption to make with regard to the Maltese Census Reports, in which lack of continuity and comparability is a major feature. The more recent Census Reports are more detailed in their cataloguing of occupations, and it is often difficult to be sure that one group of occupations in one Report is divided between three or four groups in the following one.

The figures for occupations are given by locality, or by groups of localities, so studies of regional changes may be carried out. Again uniformity and continuity are a problem in the comparison of census districts, which change from census to census, but this problem is capable, to a certain extent, of being resolved. Unfortunately, the Census Reports of 1881 and 1891 give figures for groups of localities only, so complete continuity is possible only on that basis, and any more detailed regional study (e.g. of individual villages) may be made only for the years before 1881 and after 1891.

Male and female working populations since 1851.

In this chapter the working population is defined as all those who, according to their occupations stated in the Census Reports, were engaged in either direct production of wealth (supply of capital, agriculture, industry and commerce), or the providing of some sort of service which
was paid for (government, amusements, transport, etc.).

The deduction of economic changes from changes in the size and composition of the working population brings forward another problem, namely, that of under-employment and unemployment.

Only in the Census Reports for 1921 and 1931 is there any definite mention of unemployment. In these years, there are distinguished those people who returned themselves under a particular occupation, but as unemployed. These were distinct from the large group of people who described themselves as having no occupation at all.

In 1921, of a total of 55,589 men who were classified under particular occupations, 8.4% were stated unemployed, and in 1931, of 62,627, 4.6% were stated unemployed. It seems reasonable that the proportion unemployed in 1931 should be lower than in 1921, for conditions were better than in the former year. Conditions for employment were, however, better in 1921 than in 1911, and it seems likely that, depending on prevailing economic conditions and season, as much as 10% or more of the allegedly working male population may in fact have been unemployed. This rate would vary with the season, for the agricultural labour force works seasonally. In 1921 and 1931, about 5% of the agricultural labourers were classified as unemployed, but those were spring censuses, when there was
work to be done on the land, preparing for the summer.

Most of the stated unemployed in 1921 and 1931 were to be found in the various large groups of unskilled workers and agricultural labourers. In 1921, 25% of the stated unemployed were unskilled labourers (1,131) and in 1931, about 28% (778).

It would appear that during the last 100 years, there has been a large body of unskilled labour, passing from one main occupation to another, according to the labour demands of the moment. As the non-agricultural sector of the economy developed, these labourers have become unskilled industrial workers, or road and building labourers, or porters and coal-heavers, according to the level of activity in the Dockyard and harbours, and according to the rate and direction of Public and Imperial spending of various kinds. During the period under study, there was nearly always the problem of a growing population straining the Island's resources, and a large number of people were under-employed. In 1921 and 1931, besides those stated unemployed there was also a body of men some 3,000-4,000 strong between the ages of 15 and 65 who had no occupation. Since the fringe of under-employed men was so large, the distinctions between employment and unemployment were not very sharp, and according to the frame of mind of the individual being questioned,
he may have been marked one way or the other. For example, the numbers of agricultural workers in Mellieha in 1901, 1911 and 1921 were 564, 395, and 545 representing 73%, 62% and 71% of the male working population respectively. In 1911, there was no increase in any other occupational group, just an increase in the numbers of men with no occupation. Nothing out of the ordinary seems to have happened in Mellieha in 1911, and the decline in agricultural labourers is contrary to the national trend. Moreover, in 1921 there was a sharp increase, and the likely explanation is that in 1911, many men who were occasionally, or seasonally employed, were recorded as unemployed.

Any estimates of unemployment from the pre-1921 Census Reports would be very unsatisfactory. The groups in which unemployed people would be recorded tended to vary from census to census, especially in age, and there is the difficult problem of sorting the real unemployed population from those who were old or retired and from children. Little sense can be made from the figures, and even when there is apparent comparability between Census Reports, as with 1891, 1901 and 1911, the figures give the wrong impression. 1901 comes out as a year of greater unemployment than either 1891 or 1911, although 1901 was a boom period in Malta, and 1911 was a depression year.
All that can be done about this problem of unemployment and under-employment is to be aware of its existence, and to realise that working populations calculated from numbers supposedly employed are probably inflated, especially in the large sections of agricultural labourers, porters, etc.

Although the bulk figures of the total working population are interesting in some cases, the working population is generally best studied in two parts, male and female. Although social custom may change, and has changed in many ways in Malta, there tends to be a division of labour between the sexes. This division was very marked, especially at the beginning of the period under discussion, when the two groups were by no means economically equivalent.

The Female Working Population.

The general trend throughout the period (see Fig. 13) is one of decline in size, relatively and absolutely. In 1851 it amounted to about 45% of the total working population. In 1948 it had fallen to 14%. In 1851, most of these women were engaged in textile working of various kinds. Cotton spinning and weaving absorbed about 37% of them. The decrease in the female working population reflects the decline of the cotton industry, but apart from its significance in any analysis of the cotton industry, the size of the female working population
is of interest during two periods when it did not decline. Between 1861 and 1871, and again between 1911 and 1921, the female working population increased.

The reason why more women were enumerated as “working” in 1871 than in 1861 arises from the different seasons of the year at which these two Censuses were held. The 1861 Census was an autumn Census (October), whereas the 1871 Census was held in the spring (April). The resulting discrepancy is useful in that it gives some indication of seasonal changes in activity. This is particularly significant in relation to farming.

The female working populations, as determined from the Census Reports of 1851, 1861 and 1871 were as follows:

<table>
<thead>
<tr>
<th>Year</th>
<th>Season</th>
<th>Female working population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>Spring</td>
<td>26,644</td>
</tr>
<tr>
<td>1861</td>
<td>Autumn</td>
<td>24,084</td>
</tr>
<tr>
<td>1871</td>
<td>Spring</td>
<td>25,340</td>
</tr>
</tbody>
</table>

i.e. a fall of 2,560, then a rise of 1,266. In detail it may be seen that this corresponds with a fall and a rise in the numbers of women working in agriculture:

1851 - 3,855; 1861 - 1,736; 1871 - 3,742

i.e. a fall of 2,119, then a rise of 2,006. It is to be expected that the fall in farming should be less, and the recovery greater than in the total female working population,
because the whole working population was affected by the decline in the cotton industry.

Evidently there was a greater demand for female agricultural labour in the spring, after the rain, when the land was being prepared for the summer crops, than in the autumn, after the harvest.

An examination of the regional changes shows that the fluctuation described above was not uniformly felt throughout the Island. Some villages (Birkirkara and Baxzar) actually show a decline in female agricultural numbers, many show only very slight increases, while others (e.g. Siggiewi, Rabat, Zejtun) had remarkably large increases. Rabat, Siggiewi, Mellieha and Qormi, together accounted for over 1,200 of the 2,000 variation.

Besides farm-work, the cotton industry was the great source of employment for women. In an attempt to see whether there was any connection between the two, the changes in the cotton industry have been compared with those in agriculture over the same period.

<table>
<thead>
<tr>
<th></th>
<th>1851</th>
<th>1861</th>
<th>1871</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total cotton</td>
<td>10,761</td>
<td>9,154</td>
<td>8,189</td>
</tr>
<tr>
<td>Spinning</td>
<td>7,140</td>
<td>6,009</td>
<td>5,110</td>
</tr>
<tr>
<td>Weaving</td>
<td>3,349</td>
<td>2,939</td>
<td>3,021</td>
</tr>
</tbody>
</table>

The season during which there was likely to be most competition between agriculture and the cotton industry
for female labour was the autumn immediately after the cotton harvest. The work of spinning would continue through the winter as long as the crop lasted. In an October census, there would therefore be a maximum number of women engaged in spinning. By the spring the spinning having slackened, women would be available for farm-work, and many of those recorded as "spinning" in an October census, would be recorded as "agricultural" in April. The weavers, whose work was more regular, would be less likely to follow this seasonal change in occupation. Any seasonal change in the occupation of weavers was more likely to be a short-term change to spinning during the busy autumn period.

When considering the figures for numbers employed in the cotton industry, as quoted above, one must bear in mind that this was a period of decline in the industry, especially in spinning.

If, as has been suggested, there was competition between agriculture and the cotton industry, the change of occupation between spring and autumn would be more evident in the spinning areas, and less evident in the weaving areas. The best examples to take are Rabat and Zebbug, the old centres of weaving, because the figures are least affected by the decline in the industry (see Chapter 4).

In Zebbug, between 1861 and 1871, the female working
population rose from 1,080 to 1,519. There was a slight increase in the number of women engaged in farming (30), but this amounted to only a 3% increase, which is low compared with most villages (200% in Zejtun). Cotton workers, moreover, increased in number by 231, whereas in Malta as a whole, they decreased by nearly 1,000. The increase in Zebug was in weaving, and there was a slight decline in spinning.

It would seem from these figures, therefore, that even in the mid-nineteenth century, the cotton industry (particularly weaving) of Zebug was still strong enough to prevent any seasonal movement of female labour into agriculture in the spring.

In Rabat (and Mdina), the female working population rose from 1,258 to 1,977 between 1861 and 1871. Here there was an increase in female agricultural workers of 53% - an increase of 82%. There was also an increase of 17% in cotton. In detail, this was an increase of 220 in weaving, and a decline of 59 in spinning.

There is considerable similarity between Zebug and Rabat in the variations within the cotton industry in this period, but considerable dissimilarity in agriculture. The reason for this rests in the differences in the distribution of the population in the two areas. The Zebug area was one of almost complete nucleation of settlement,
concentrated in the village of Zebbug itself. In the Rabat area, the pattern of population distribution was different. This area contains many places which could be termed "remote" - farming hamlets in favourable agricultural backwaters such as Labatija, Mtahleb, Fomm ir-Rieh, etc. In 1891, the total population of hamlets and isolated farmsteads in the Rabat area was given as 1,437 (compared with only 30 in Zebbug), and it is probable that in 1861, the total Rabat/Mdina population of 5,916 was only about two-thirds nucleated.

Weaving was a great traditional occupation in Zebbug and Rabat, and most of the weavers would be full-time workers, residing in the village. The isolated hamlets were primarily farming communities, and although the women may have taken part in spinning after the harvest, and although some, no doubt, did their own weaving, yet weaving was not likely to be important enough to keep them from the fields in spring.

The main central settlements of Zebbug and Rabat were similar in that they had old-established weaving industries which did not suffer so much from seasonal fluctuation, but the dispersed population was purely agricultural in character.

Most of the fluctuation in the numbers of female farmworkers between the autumn and spring seasons occurred
in the districts of Mellieha, Rabat, Dingli, Siggiewi and Mosta, where many farmers were working valley lands on the flanks of the Upper Coralline plateau. Mosta may appear out of place here, but in fact, many of the hamlets in the areas of Rabat, Maxxar and Mellieha (the under-cliff valleys of the west coast, the Wied il-Ghasel, and parts of Pwales) were settled from Mosta, and until 1891, they returned themselves in the Census Reports under Mosta. In 1891 these amounted to over 1,000 people.

In October, 1861, the five villages of Mellieha, Rabat, Dingli, Siggiewi and Mosta accounted for 23% of the population of Malta outside the harbour area. In April 1871 they accounted for 22.5%. In October 1861 they included 50% of the female farm-workers, but only 17% of the cotton workers living outside the harbour area. In April 1871, they made up 53% of the female farm-workers, and again 17% of the rural cotton workers. In this group, one must remember that there is included the ancient nucleated population of Rabat and its weaving industry. Rabat accounted for 42% of the cotton workers in the group in 1861 and 59% in 1871 - the reason for the increase being the decline of the industry away from Rabat and Zebug, and this means that the figures of 17% in 1861 and 1871 (proportion of rural cotton workers) are inflated, in 1871 more than in 1861.
It would seem, therefore, that during this period in the mid-19th century that the communities of western and north-western Malta were even less involved in the cotton industry than the larger villages to the east. They were primarily agricultural, including a larger proportion of agricultural workers (in proportion to their population) and a smaller proportion of cotton workers.

The increase in the female working population, then, between 1861 and 1871, may be ascribed to the different seasons in which the Censuses were taken.

The second abnormal period of increase in the female working population between 1911 and 1921 was quite different in character, and was directly related to the emigration of about 15,000 people (net) during the decade.

Between 1891 and 1901, the numbers of women working in industries (apart from the cotton industry) increased. They decreased between 1901 and 1911, when many were replaced by men, and then increased again in 1921, by which time there were vacancies due to emigration.

The point about replacement comes out in the following example, where the numbers of women engaged in various industries have been compared, for the years 1901, 1911 and 1921. The figures refer to the following industries: publishing and book-binding, plastering, dying and scouring, salt manufacture, tobacco, hotel and inn-keeping,
fishing, baking, hat making, tailoring, candle making, cane and basket weaving, straw plaiting and earthenware. In all these industries, there was an increase in male workers and a decrease in females between 1901 and 1911.

<table>
<thead>
<tr>
<th></th>
<th>1901</th>
<th>1911</th>
<th>1921</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>2,478</td>
<td>3,420</td>
<td>3,076</td>
</tr>
<tr>
<td>Female</td>
<td>3,187 (56%)</td>
<td>2,154 (39%)</td>
<td>2,125 (41%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>5,665</td>
<td>5,574</td>
<td>5,201</td>
</tr>
</tbody>
</table>

i.e. whereas in total, the numbers changed very little, 1,000 women (1/5 of the total women, and 1/5 of the total workers) were replaced by men. By 1921, the total numbers employed in these industries had declined, but the decline was in the males, and the females had slightly increased or at least retained their share. By 1921 too, the numbers of males engaged in spinning and weaving cotton had dropped again:

1901 - 35; 1911 - 67; 1921 - 17

*It also happened in the cotton industry, which is very significant since this was very much a female concern, and, moreover, a dying industry. Because the cotton industry was in such decline, the relevant figures have not been included in the table above, since they would add a variant factor.*
Moreover, in 1901, and in 1921, the majority of these men were in the over 45 and under 25 age-groups, and in 1911, most were in the 25-45 age-group.

A consideration of these figures in the light of Chapter 1 on emigration suggests that in the decade 1911 to 1921 the rise in the female working population came as a consequence of male emigration during the period. The following decade brought an immediate drop, and by 1948, the female working population had fallen to 11,966.

The male working population.

The trend of male working population is a more significant indicator of detailed economic change (fig. 13).

One of the main features of the changes which have taken place is the decline in the importance of agriculture as a source of employment. Throughout the economic development of Malta during the past century, agriculture has changed very little. The number of men engaged in farming activities in 1948 was about 6,500 (Malta alone), and this figure is much the same as that for 1851. During this period, the male working population increased by some 108%. Since there have been no great changes in agriculture during that period, it is true to say that in an economic expansion which was partly the cause and partly the result of the large increase in population, agriculture played no part at all.
Very rarely has there been a period of agricultural prosperity where there was no competition for workmen from labour demands in the harbour area. The short-lived boom in cotton-growing, a revival which accompanied the American Civil War in the 1860's, is perhaps the only example. At other times, agricultural prosperity has merely been part of a general prosperity, and the rural population merely part of the labour pool which was drawn on when economic circumstances demanded.

As activity in the harbour area increased, the proportion of the male working population engaged in agriculture fell:

Proportion of Male Working Population engaged in Agriculture

<table>
<thead>
<tr>
<th>Year</th>
<th>%</th>
<th>Year</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>20</td>
<td>1901</td>
<td>14</td>
</tr>
<tr>
<td>1861</td>
<td>19</td>
<td>1911</td>
<td>15</td>
</tr>
<tr>
<td>1871</td>
<td>22</td>
<td>1921</td>
<td>15</td>
</tr>
<tr>
<td>1881</td>
<td>20</td>
<td>1931</td>
<td>12</td>
</tr>
<tr>
<td>1891</td>
<td>16</td>
<td>1948</td>
<td>9</td>
</tr>
</tbody>
</table>

This decline has not been regular, because the population has tended to increase at a faster rate than the economy has expanded, and there have been periods when pressure of population has forced men back into agriculture - the only industry which by its very nature was always capable of absorbing some of the surplus members. This happened around 1870, and again between 1901 and 1911 (see below).
The fluctuations in numbers of those employed in agricultural pursuits throws significant light on the place of agriculture as a source of employment. The various periods of prosperity which have occurred in the harbour area have been accompanied by a movement out of agriculture, and periods of depression, or periods when the increase in population has outstripped the rate of economic development, have seen an increase in the farming population. For example, numbers engaged in agricultural work increased from just less than 7,000 in 1851, to almost 9,000 in 1871 as population pressure on employment grew. Numbers fell again to about 7,000 in 1901 when there were large construction works going on in and around Grand Harbour. 1911 was a depression year, and agricultural numbers rose to 8,500, only to decline again after 1921 to about 6,500 by 1948 when post-war reconstruction provided plenty of work in the devastated areas around the harbours.

The Maltese labour force has always been quick to exploit the possibilities provided by the activities around the harbours, and agriculture may be considered as a sort of national "stand-by" in difficult times. This applies especially to those agricultural areas which lie adjacent to the harbour region.

Economic expansion centred on the two great harbours, and the bulk of the increase in population took place around
that area. Added to a large natural increase in population, internal migration took place both from the old urban centres and from the villages, to swell the suburbs (2).

Gradually the whole Island became drawn into the economic sphere of the harbour area, and the population of the rural area became less and less dependent on agriculture for its livelihood. This process was not regular, and there were regional differences in the rate of change, depending on the relative strength of the economic factors concerned (especially the varying level of opportunity in the harbour area), and the distance from the harbour area. The availability of transport facilities has had a marked influence, for although Malta is only a small island, the Maltese concept of distances makes the difference of a few miles quite important.

### Percentage of Male Working Population engaged in Agriculture

<table>
<thead>
<tr>
<th></th>
<th>1861</th>
<th>1871</th>
<th>1881</th>
<th>1891</th>
<th>1901</th>
<th>1911</th>
<th>1921</th>
<th>1931</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zebbug</td>
<td>25.5</td>
<td>31</td>
<td>31</td>
<td>20</td>
<td>22</td>
<td>28</td>
<td>24.5</td>
<td>22</td>
</tr>
<tr>
<td>Siggiévi</td>
<td>52</td>
<td>56</td>
<td>54</td>
<td>54</td>
<td>53</td>
<td>56</td>
<td>57</td>
<td>46</td>
</tr>
<tr>
<td>Dingli</td>
<td>90</td>
<td>86</td>
<td>66</td>
<td>75</td>
<td>80</td>
<td>59</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Rabat/Mina/Mgarr</td>
<td>46</td>
<td>46</td>
<td>39</td>
<td>44</td>
<td>46</td>
<td>38</td>
<td>38</td>
<td>38</td>
</tr>
<tr>
<td>Gharb</td>
<td>37</td>
<td>51</td>
<td>42</td>
<td>41</td>
<td>43</td>
<td>46</td>
<td>46</td>
<td>46</td>
</tr>
<tr>
<td>Zabbar</td>
<td>19</td>
<td>25</td>
<td>12</td>
<td>13</td>
<td>15</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tarxien</td>
<td>23</td>
<td>25</td>
<td>14</td>
<td>10</td>
<td>12</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gudja</td>
<td>35</td>
<td>35</td>
<td>31</td>
<td>43</td>
<td>48</td>
<td>33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zurrieq</td>
<td>43</td>
<td>53</td>
<td>43</td>
<td>44</td>
<td>29</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mgabba</td>
<td>50</td>
<td>42</td>
<td>30</td>
<td>31</td>
<td>25</td>
<td>19</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qrendi</td>
<td>51</td>
<td>51</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Estimated.

The most striking feature of many of these examples
is the strongly marked decline between 1921 and 1931. It was in this decade that a new element, that of large-scale transport development (motor buses), came into being. Time-tables of services were not published for a complete network of services until the mid-thirties, but in 1931, 1,414 men were employed in motor services, and it seems clear that a large number of services appeared in the decade 1921-31. The railway and tramways which had been in existence since 1881 and 1905 respectively, both closed down finally in 1931, as competition from the motor transport became too great. Because of railway and tramway building, some villages in the eastern plateau of Malta became part of a labour catchment area for the harbour area before the advent of the motor buses, for Rabat, Zebbug, Qormi, B'kara, Hamrun, Pawla and Zabbar had been linked either with Valletta or the Three Cities. The development of road transport brought more of the island more readily into the economic orbit of the harbour area, and decreased the necessity for immediate internal migration of village people seeking work in the conurbation.

Before this period of easy transport, any decline in the proportion of agricultural workers in a village was brought about by a movement of farm labourers out of the villages. Between 1911 and 1921, the agricultural proportion of the male working population of Zurrieq fell
from 44% to 29%. Between these years, the male population of the village declined by about 500, and there was a slight decline in the male working population. In detail, the agricultural workers declined by 200, some of this decline in the male working population being offset by increases in other groups. The rest of the total decline in male population came from the group described as unemployed. So the main part of the decline in agriculture in Zurrieq was caused by migration of agricultural workers and unemployed labourers.

After the advent of motor transport, the agricultural proportion of male working populations of villages declined as more men in the villages changed their occupations.

Between 1921 and 1931, the proportion of industrial workers living in the rural area rose from 28% to 31%. In actual numbers, this was an increase of 42%, compared with an increase of 36% in the suburbs and 7% in the urban area. Moreover, this rural increase occurred despite a decline in several branches of industry. In the metal working trades, e.g., fitters, turners, rivetters, etc., where the level of activity in the Royal Naval Dockyard was paramount in setting the employment level, there was a decline in numbers in the urban area (especially in the Three Cities) and an increase in those living in the villages.
Variations in the agricultural labour force in sub-urban and rural Malta.

One important criterion in deciding upon what constitutes rural and sub-urban Malta is that of distance, for it was those areas immediately adjacent to the Grand Harbour area which were most likely to be affected by fluctuations brought about by the level of attraction of harbour employment.

A. Male farm-workers

<table>
<thead>
<tr>
<th>Region (a)</th>
<th>Region (b)</th>
<th>Rural</th>
<th>Date of Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>1,551</td>
<td>995</td>
<td>4,234</td>
</tr>
<tr>
<td>1861</td>
<td>1,579</td>
<td>1,061</td>
<td>4,328</td>
</tr>
<tr>
<td>1871</td>
<td>1,326</td>
<td>1,299</td>
<td>5,166</td>
</tr>
<tr>
<td>1881</td>
<td>1,271</td>
<td>1,907</td>
<td>5,653</td>
</tr>
<tr>
<td>1891</td>
<td>1,435</td>
<td>1,168</td>
<td>4,575</td>
</tr>
<tr>
<td>1901</td>
<td>1,165</td>
<td>730</td>
<td>4,766</td>
</tr>
<tr>
<td>1911</td>
<td>1,309</td>
<td>1,100</td>
<td>5,839</td>
</tr>
<tr>
<td>1921</td>
<td>1,301</td>
<td>1,303</td>
<td>5,591</td>
</tr>
<tr>
<td>1931</td>
<td>1,005</td>
<td>1,151</td>
<td>5,027</td>
</tr>
</tbody>
</table>

B. Female farm-workers

<table>
<thead>
<tr>
<th>Region (a)</th>
<th>Region (b)</th>
<th>Rural</th>
<th>Date of Census</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>980</td>
<td>351</td>
<td>2,502</td>
</tr>
<tr>
<td>1861</td>
<td>392</td>
<td>162</td>
<td>1,141</td>
</tr>
<tr>
<td>1871</td>
<td>897</td>
<td>429</td>
<td>2,381</td>
</tr>
<tr>
<td>1881</td>
<td>411</td>
<td>467</td>
<td>2,427</td>
</tr>
<tr>
<td>1891</td>
<td>680</td>
<td>684</td>
<td>2,645</td>
</tr>
<tr>
<td>1901</td>
<td>572</td>
<td>429</td>
<td>2,327</td>
</tr>
<tr>
<td>1911</td>
<td>290</td>
<td>279</td>
<td>2,451</td>
</tr>
<tr>
<td>1921</td>
<td>504</td>
<td>591</td>
<td>2,570</td>
</tr>
<tr>
<td>1931</td>
<td>214</td>
<td>336</td>
<td>1,756</td>
</tr>
</tbody>
</table>

The regions (a) and (b) have been distinguished in order to differentiate between those villages fringing the
harbour to the south and east, and those to the south-west. Group (a) contains Birkirkara, Attard, Lija, Balzan, Luqa, Qormi, Pawla and Tarxien. Group (b) contains Zejtun, Zabbar, Gudja and Ghaxaq.

The bulk of the farming population is found in the rural group of villages (about 60% of the males and 65% of the females in 1851). The following changes are evident in the male farming population of this rural group: from 1851 until 1881, numbers increased from 4,234 to 5,635. They fell to 4,575 in 1891, and rose again to 5,839 in 1911, then fell once more. These fluctuations coincide with fluctuations in the level of activity in the harbour, which rose during the 1880's and fell off sharply after 1906. Farm-workers left the land to take advantage of opportunities elsewhere, mainly in the harbour area, but returned to farming afterwards.

The two sub-urban groups differ considerably. The population of the western group was more than half as large again as that in the eastern area, both at the beginning and the end of the period, but the agricultural labour forces are of comparable sizes. Agriculture would therefore seem to be more important in the eastern group. In fact, the trend in this group is similar to that of the rural group, except that the fluctuations are more violent.
The male farming community in the western sub-urban area was much steadier. Apart from 1871, when numbers reached 1,926, this group remained fairly steady, declining gradually.

In contrast to the Birkirkara area, the Zabbar area suffered a sharp decline between 1881 and 1891 (1,907 to 730) and an equally sharp rise during the following decades. Since the Zabbar area is nearest to the harbour area, it would seem that the fluctuations in numbers employed in agriculture is related to the opportunities for employment in the harbour area. In the period of great rise in "industrially" employed between 1881 and 1901, about 2,200 males left agriculture in Malta, and of these, 1,200 came from the 7th district (Zabbar, Zejtun, Gudija, Ghaxaq). Similar but less violent changes occurred in the rural area of Malta, but the western sub-urban area was different. Here, instead of a fluctuation in employment between agricultural and harbour activities, there was a steady industrialisation associated with the expanding economic and political functions of Valletta.

The non-agricultural sector.

As already stated, the decline in agriculture during the period under review was relative rather than absolute, i.e. there was a large increase in non-agricultural
activities. Between 1881 and 1931, the proportion of those connected with non-agricultural industries (including building) in the male working population rose from 23% to 40%. The most important contributors to this group have been construction and dockyard workers, both of which have had varying fortunes, depending on the level of British spending in Malta. The commercial sector increased from 25% of the male working population in 1871 to 30% in 1931. This is a small increase, because by 1931, Malta had long passed the commercial boom of the late nineteenth century.

The effects of changes in these occupation sectors of the male working population are best examined between 1871 and 1881 (the beginning of the commercial boom), and after 1881 (the industrial boom).

Between 1871 and 1881, there was a sharp rise in the male working population in Malta. It rose to 46,116 from 40,699 an increase of 5,417, compared with 2,476 from 1861-1871, and a decrease of 206 between 1881 and 1891.

This increase was divided as follows:

- urban - 3,337, or 17% increase. Pop. - 9%
- suburban - 1,290, or 12% increase. Pop. - 4%
- rural - 790, or 8% increase. Pop. - 3%

The corresponding population increases are placed alongside.
The indications seem to be that in 1881, Malta was considerably more prosperous than in 1871. The numbers of males on the Island who were totally unoccupied fell by some 2,000 during the decade compared with a drop of about 500 in the previous decade and a rise of 8,000 in the following, i.e. conditions of work-availability, which had improved by 1871, seem to have improved even more by 1881, only to deteriorate considerably by 1891.

<table>
<thead>
<tr>
<th>% change of male working population 1861-71-81-91</th>
<th>1861-71</th>
<th>1871-81</th>
<th>1881-91</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban</td>
<td>+8</td>
<td>+17</td>
<td>+4</td>
</tr>
<tr>
<td>sub-urban</td>
<td>+0.7</td>
<td>+12</td>
<td>+5</td>
</tr>
<tr>
<td>rural</td>
<td>+9</td>
<td>+8</td>
<td>+1</td>
</tr>
</tbody>
</table>

As may be seen from the above table, the great fluctuation was largely an urban affair, although the pattern is reflected in the sub-urban figures.

Details of the change 1871-1881

This is an attempt to discover (from the census figures) which occupations were affected by the changes. The following table contains a list of those groups of occupations whose numbers rose considerably during the decade. The figures are for the whole Island, and regional changes further are discussed below with reference to each group.
As may be seen, the main part of the increase was made up by the commercial group and the group "porters, carriers, coal-heavers". Of all the groups making up the working population, the greatest single contributors have always the portering and carrying groups, and the building trade groups - masons, plasterers, builders, carpenters etc. In this decade there was no increase in the building groups - despite the large increase in the working population (male), the building groups, at this time the most numerous single group (about 5,000), actually declined by about 300. This may be quite significant. Prosperity may come to Malta in one of two ways; either money enters the Island in a successful trading period, or money is spent in the Island by the Civil or Imperial authorities on construction works. In the first case, the commercial and transport groups are likely to be most affected, and in the second case, the building groups. The rise in the

<table>
<thead>
<tr>
<th>Male working population</th>
<th>1871</th>
<th>1881</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male commercial group</td>
<td>5,466</td>
<td>6,921</td>
<td>+1,455</td>
</tr>
<tr>
<td>Porters, carriers, coal-heavers</td>
<td>2,429</td>
<td>5,201</td>
<td>+2,772</td>
</tr>
<tr>
<td>Coachmen, cabmen</td>
<td>334</td>
<td>7666</td>
<td>+ 432</td>
</tr>
<tr>
<td>Personal servants</td>
<td>1,466</td>
<td>2,070</td>
<td>+ 604</td>
</tr>
<tr>
<td>Civil servants</td>
<td>973</td>
<td>1,069</td>
<td>+ 96</td>
</tr>
</tbody>
</table>
Male working population from 1871 to 1881, was most evident in the commercial and transport groups. Other specific groups (blacksmiths, tailors, civil servants) expanded slightly.

Regional changes, 1871-81

The occupational groups mentioned in the above table are discussed in urban, sub-urban and rural groupings. This is an attempt to find out how far the changes in fortune of a particular group are felt throughout the Island.

The commercial group

This group includes bankers, merchants, dealers, brokers, auctioneers, shop-keepers, warehouse-keepers, petty vendors, hucksters and ship's-chandlers. It includes most of those entered under "Commerce" in the 1871 Census, for whom comparable groups were found in the 1881 Census.

Regional changes were as follows:

<table>
<thead>
<tr>
<th>Region</th>
<th>1871</th>
<th>1881</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban</td>
<td>3,357</td>
<td>4,592</td>
<td>+1,235</td>
</tr>
<tr>
<td>sub-urban</td>
<td>1,340</td>
<td>1,476</td>
<td>+  69</td>
</tr>
<tr>
<td>rural</td>
<td>702</td>
<td>853</td>
<td>+ 151</td>
</tr>
<tr>
<td>Malta</td>
<td>5,466</td>
<td>6,921</td>
<td>+1,455</td>
</tr>
<tr>
<td>Malta females</td>
<td>1,458</td>
<td>1,434</td>
<td>-    24</td>
</tr>
</tbody>
</table>

In 1881, of the 6,921, about 3,000 were "bankers, merchants, and dealers" (increase 8%), about 1,600 were
"shop-keepers" (increase 11%), and 1,700 were "petty vendors, pedlars" (increase 25%). The large increase was entirely male, and it was confined to the harbour area. It was so localised that it did not significantly affect even the sub-urban area, where the increase was less than in the rural areas.

**The porterage group**

This group includes "porters, carriers and coal-heavers". The regional changes were as follows:

<table>
<thead>
<tr>
<th></th>
<th>1911</th>
<th>1921</th>
<th>change</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban</td>
<td>1,124</td>
<td>2,384</td>
<td>+1,260</td>
<td>112</td>
</tr>
<tr>
<td>sub-urban</td>
<td>1,064</td>
<td>1,870</td>
<td>+ 806</td>
<td>76</td>
</tr>
<tr>
<td>rural</td>
<td>241</td>
<td>947</td>
<td>+ 706</td>
<td>293</td>
</tr>
<tr>
<td>Malta</td>
<td>2,429</td>
<td>5,201</td>
<td>+2,772</td>
<td>11%</td>
</tr>
</tbody>
</table>

Here again, the bulk of the increase was in the urban area, but unlike the commercial group, this group also increased considerably in sub-urban and rural Malta. The increase in rural Malta is most striking. Of the 706 increase, about 400 were accounted for by the Zebug/Siggiewi area. It is also significant that whereas in Malta as a whole, numbers of male agricultural workers increased, in the Zebug/Siggiewi area, numbers declined.

**The transport group**

This group, including coachmen and cabmen, increased as follows:
Again the greatest absolute increase was in the urban area, but relatively the sub-urban and rural increases were more spectacular. There tends to be a close connection between this group and the previous group of porters and coal-heavers. The harbour area was dependent to a large extent on the rural areas for supplies of labour for portering etc. Fluctuations in the level of commercial activity in the port would be reflected in the extent to which this rural labour pool was drawn upon, and this in turn would determine the amount of transport needed between the two areas.

**Personal servants.**

<table>
<thead>
<tr>
<th></th>
<th>1871</th>
<th>1881</th>
<th>change</th>
</tr>
</thead>
<tbody>
<tr>
<td>urban</td>
<td>1,067</td>
<td>1,488</td>
<td>+ 401</td>
</tr>
<tr>
<td>sub-urban</td>
<td>153</td>
<td>438</td>
<td>+ 285</td>
</tr>
<tr>
<td>rural</td>
<td>226</td>
<td>144</td>
<td>- 82</td>
</tr>
<tr>
<td>Malta</td>
<td>1,866</td>
<td>2,070</td>
<td>+ 604</td>
</tr>
</tbody>
</table>

Again an increase in urban and sub-urban areas, with this time, an actual decrease in rural Malta. There are
two points here. In the first place, an increase in commercial activity such as that which took place in the urban area would bring about an increase in wealth amongst the merchant class, and one would expect to find more servants working for them. This would help to explain the increase in urban and sub-urban Malta. Nowadays it is very common to find country girls working as servants in Valletta, often travelling daily from rural homes because transport to Valletta from the villages is so good. In 1881 it is reasonable to suppose that transport facilities from sub-urban to urban Malta were adequate for movement of a similar kind.

The other point arises in connection with the absolute decline of servants in the rural areas. It is possible that this decline is an indication of the migration of the gentry and nobility to Valletta and Sliema as the old villages - the "cities" of pre-British Malta - became unfashionable.

The following table gives a list of the numbers of nobility and gentry and their servants, residing in rural districts (i.e. Rabat, Dingli, Zebbug, Siggiewi) from 1851 to 1901:

<table>
<thead>
<tr>
<th>Year</th>
<th>Nobles etc.</th>
<th>Servants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>205</td>
<td>187</td>
</tr>
<tr>
<td>1861</td>
<td>83</td>
<td>321</td>
</tr>
<tr>
<td>1871</td>
<td>137</td>
<td>200</td>
</tr>
<tr>
<td>1881</td>
<td>145</td>
<td>209</td>
</tr>
<tr>
<td>1891</td>
<td>143</td>
<td>236</td>
</tr>
<tr>
<td>1901</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1861 stands out as a year of, apparently, few nobles in these areas. The reason for this low figure is, I think, that in 1861, the Census was taken in October instead of in the Spring, as with all the other years, and it is quite likely that many wealthy people normally resident in the country were at that time in Valletta, or by the sea.

There does seem to be some case for postulating a migration of the "rural aristocracy" during the second half of the 19th Century. Unfortunately there is no way of cross-checking the movement by comparing similar figures for Valletta, for there, the numbers of "gentry" etc. increased with every Census. That particular Census group also includes landowners, and these increased in number as wealth entered the Island. There are many middle-class people in Malta who own property - people like to own land - and a merchant would be likely to buy property if his business were successful. So the old Maltese landowning class of nobles and rural gentry would be lost in the urban area, amongst the numbers of these "nouveaux riches" landowners.

Civil servants

(See over)
This group only increased by 96, and the reason for its inclusion in this examination is that it provides another instance of a feature which has been prominent, namely the extension of the influence of the harbour area in Maltese national life. The old centres gradually lost their function to Valletta, and the villages became more and more closely linked economically to the capital.

From this examination of the groups in which the rise in the male working population took place between 1871 and 1881, it seems that the rise was due to commercial factors. The greatest bulk of the increase was in porters and coal-heavers, men who were likely to move back to farming. It is difficult to assess how far the numbers engaged in "portering" were "fully employed", and it is likely that the figure is to some extent inflated in terms of real employment. Of all the occupational groups which benefited from an increase of commercial activity in the harbours, the coal-heavers derived the most lasting prosperity, for the bunkering trade which began in the 1870's did not finally die until the 1920's.
Coal was not brought to Malta in any great quantities until the late 1850's, but with the world trade boom following the opening of Suez and the increase in the world's steamer cargo fleet, it became more important. In 1882, imports exceeded £1 a million tons for the first time.

With the rise in the bunkering trade(3), a new class of labourers developed in Malta, working solely with coal. They became sufficiently numerous to find mention in the Census Report of 1881, but they were not distinguished from other porters until 1891. However, the 1880's were the peak years of the bunkering trade, and the situation when the census was taken in 1891 may be considered as the highest development of this specialist harbour business. The numbers employed in "coal-heaving" were greater in the 1921 Census Report than in any other but this followed an extraordinary period following the First World War, when imports rose to 1.74 million tons in 1917, and, although falling sharply, remained over 1 million for two more years, giving a late short-lived boost to a declining trade.

<table>
<thead>
<tr>
<th>Year</th>
<th>No. employed in &quot;coal-heaving&quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1891</td>
<td>2,775</td>
</tr>
<tr>
<td>1901</td>
<td>1,792</td>
</tr>
<tr>
<td>1911</td>
<td>2,022</td>
</tr>
<tr>
<td>1921</td>
<td>2,374</td>
</tr>
<tr>
<td>1931</td>
<td>1,170</td>
</tr>
</tbody>
</table>
In 1391, nearly 80% of the coal-heavers came from Hamrun, Tarxien, Pawla, Zabbar, Qormi, Luqa and Zejtun. The fringe villages of Qormi, Luqa and Zejtun accounted for about 44%.

This distributional pattern remained until after the turn of the century. The figures for 1911 show an increase in numbers of coal-heavers coming from Zebbug. An important factor influencing this may have been the tramway which was built in 1905 from Valletta to Zebbug.

The point which comes out of this is the importance of the harbour fringe of Hamrun-Marsa-Pawla-Zabbar, and of the nearest villages of Zejtun, Luqa and Qormi. Distance from the harbour was important; only after the development of transport did coal-heavers come from further afield.

Chapter 4. Changes in Space Relations.

Previous chapters have shown the gradual extension of British activity in the harbour area during the period under consideration, and the resultant increasing concentration of Maltese internal economic life in the same area. Gradually the entire local economy has been oriented towards the harbours and in the rural community increased participation in its activities has led to increased dependence on them.
The harbour area is now Malta's major centre of
unemployment, not only in the Dockyard, but also in
private industry and in administration.

In 1957 the total number of gainfully employed
Maltese was stated to be about 85,100(1). These were
employed as follows:—

by Maltese Government ....................... 17,000
by the Services Depts ......................... 23,000
in agriculture and fishing .................... 8,600
in private manufacturing industries .... 8,800
in private service industries .............. 28,000

Apart from those concerned in agriculture, fishing, and
a proportion of the service industries (shops, transport,
etc.), most of these people are employed in and around
the harbour area.

There is therefore a considerable daily movement of
population, which has been made possible by the extension
of public transport facilities. Because Malta is only a
small island seventeen miles long, significant distances
are less than in a larger country. The most distant
village from Valletta is Mellieha (about 13 miles away),
and over 90% of the Island's population lives no further
than about 5 miles from the harbour area, yet the develop-
ment of public transport had a considerable effect on daily
travel to work, and speeded up the process whereby the harbour area was becoming more and more the economic centre of the Island.

In this chapter, various sections of the Maltese economy have been examined to illustrate the development of this trend.

The Cotton Industry

In this section is examined the decline of the cotton industry in Malta since 1800. The rate of this decline, and its regional variations, can be used as an indication of the way in which the economic sphere of the harbour area gradually extended to include the whole Island, and, in so doing, progressively reduced the variety of economic activity carried on in the rural areas.

The information on which the account is based is derived from three sources. Apart from occasional figures mentioned in the Governors' Reports, or in Colonial Office Despatches, statistical information is limited mainly to numbers engaged in the industry as beaters, spinners, weavers or dyers, in the years of the Census Reports since 1851. Further to this, the cotton industry is mentioned by travellers and others in descriptions of the Maltese Islands. Such information helps to give some idea of the social and economic importance of the industry, especially
during the first half of the nineteenth century before the publication of Census material. Even in these accounts, most of the interest centres on the methods of cultivating the various kinds of cotton plant, and on the types of goods produced. Scarcely any mention is made of the organisation of the industry, or of regional specialisations, and since the industry as it existed in the nineteenth century is now dead, the only way to accumulate information on this very important aspect has been to seek out and talk to those old people who could remember details of the industry. With the assistance of parish priests, the writer has been able to talk to several old men and women (the oldest being a woman near Rabat, who claimed to be a hundred years old), and thus gain a more certain knowledge of the organisation of the industry during the last quarter of the nineteenth century. Despite the fact that the industry was at that time dying out rapidly throughout most of Malta, it may safely be assumed from internal evidence that the organisation was similar in the earlier part of the century.

Part of the background to the decline of the cotton industry in Malta is discussed in Chapter 6. The death knell of the export value industry was sounded in 1800, when the Spanish Government prohibited all imports of yarn. Further, the tremendous growth of the cotton industries of
industrial countries like Britain, following the large-scale application of mechanisation, meant that the days of Maltese hand-spun goods were numbered. Finally, even the Maltese cotton lint, which was claimed to be of a very high quality, could not compete in world markets with the more cheaply produced Egyptian and American varieties.

The special advantages of the Maltese cotton industry in the way of locally produced lint and abundant local hand-labour were negated by the increased commercial activity in the Mediterranean of those countries producing cheaper, machine-made cotton goods, by 1850. After the loss of the Spanish market, the Maltese industry struggled for a time against the inevitable tide of this competition, and even when the industry had ceased to earn money abroad, it was maintained for nearly a hundred years in Malta, as a social measure.

The Organisation of the Cotton Industry

The cotton industry in Malta consisted of all the processes necessary for the manufacture of cotton cloth from the lint gathered from the cotton plant.

The cotton was harvested at the end of the summer, from about August, and the bolls were beaten and combed to eliminate everything (seeds etc.) except the lint. A very primitive method of combing was used to extract the seeds,
consisting of a small set of wooden rollers (rather like a very small mangle) through which the lint was teased. The lint was then spun directly onto wooden spools, by means of a simple spinning wheel which was turned by hand. The fineness of the yarn depended entirely upon the skill of the operator. Weaving was done on heavy wooden looms made locally. Dying took place sometimes before, and sometimes after, weaving*.

Nearly all the operators were women, - in 1861 they amounted to 96% of the total cotton workers(2), - although there tended to be a certain division of labour. Beaters and dyers were usually men (amounting to just over 2% of the cotton workers in 1861), and there were a few male weavers. The greatest total numbers were employed in spinning and weaving - 6,0099 or 65.7%, and 2,939 or 32.1%, in 1861. These were all individual operators, working in their own homes, or, at most, in family units. According to all the old people consulted, there tended to be family specialisation in spinning or in weaving, and since weaving was the higher paid occupation, there tended to be a class distinction between the two, although this

*There are still a few old women, who, like Angela Cassar of Zurrieq, work the whole process from growing to weaving, on the old type of equipment.
was not always the case, and there were many families engaged in both processes.

There was also a very marked regional specialisation. Weaving was most important in Rabat/Mdina, Zebbug, Siggiewi, Gharghur and, to a lesser extent, Mosta. All these areas also had considerable numbers of spinners, but spinning increased, and weaving decreased in importance away from these centres. The centres of the spinning industry were mainly in the S.E. of the Island, especially the Three Cities, Zabbar, Zejtun and Zurrieq. (See figs. 14, 15 and 16, below).

The links between the various sections of the industry were the merchants who organised the industry in each village. There was no commercial connection between the various processes except through the merchants, although some families, mainly in dispersed farmsteads, worked the whole process themselves and made their own clothes. Even these families would deal with a merchant in order to sell their surplus cotton after the harvest.

Some merchants advanced seed to the farmers free of charge in return for a percentage of the crop (as much as 50%). Alternatively they would buy the lint from the farmers after the seeds had been extracted. The merchant would then pass on the cotton to his beaters, after which it would be ready for spinning. Women would go to the
FIG. 15  COTTON WEAVERS 1861
(PROPORTION OF WORKING POPULATION)

KEY AS IN FIG. 14.
merchant and take away a weighed quantity, which they would have to return to the same merchant, who re-weighed the yarn and paid them cash. The price would vary according to the quality of the spinning - in 1880 in Zejtun, spinners were paid 4d. per ratal for thick yarn and 5d. per ratal for thin yarn. The merchant would store his yarn until he had an order for some goods, when he would contact a weaver, although in the eighteenth century, a considerable amount of yarn was exported (see Section C, Chapter 1).

In the days when the industry was flourishing, the cotton merchants specialised in their business, but as the industry declined and became less profitable, so the specialisation ended, and the merchants' business usually became more general. Some were able to utilise their contacts to good advantage and begin a new business. For instance a cotton merchant in Zejtun, one Rikardu ta' Kastanja, gave up his business in 1890 because it had become so unprofitable that he was unwilling to pass it on to the family. The farmers by this time were turning over to the cultivation of tomatoes from that of cotton, and because of his old trading connections, Rikardu was able to continue his middleman business dealing in this new crop. It is possible that many of the "pitkali" of

*The "pitkali" are middlemen dealing in agricultural produce.*
today are descended from a line of cotton merchants.

The largest and wealthiest merchants were to be found in Zebbug, the traditional weaving centre, where the greatest weaving skill was concentrated, - "Rich people in Zebbug", said the centenarian near Rabat. Considerable fortunes were made by some merchants, and much of the wealth of the Church may well derive from the cotton industry. Not only did many merchants leave money to the Church, but the Church itself was prominent in organising the industry, - much of the industry in Zebbug in the 18th Century was organised by Bishop Caruana, who did much to extend both the cultivation of the crop and the trade in sail-cloth.

In 1851, after half-a-century of decline, there were still 10,761 people engaged in the cotton industry in Malta. By 1901, this figure had decreased to 1,698. As has been pointed out, the roots of the decay of the Maltese cotton industry are to be found outside Malta. These factors were already in operation shortly after 1800, but the greatest period of decline came during the period 1850-1900. The reasons for this are to be found in socio-economic changes which took place within Malta during the period, in face of which the cotton industry, already existing at a very low level, and even then only because of historical momentum given greater impetus by considerations of social welfare, finally collapsed. The
eventual decline of the cotton industry is only one aspect of what may be termed a social and economic revolution in Malta.

The Cotton Industry in Malta, 1851-1901

The decline in the importance of the cotton industry in terms of employment between 1851 and 1901 was not regular. Some decades, especially 1881-1891 stand out as periods of special significance. Even less regular are the trends of regional decline, especially in spinning and weaving regarded separately. The regional variations in the importance of the cotton industry in 1861 are illustrated in figs. 14, 15 and 16. The trends of regional decline are shown in figs. 17 and 18.

In 1851, the cotton workers made up 17.6% of the total working population, but only 2.5% in 1901. This decrease was made up by a steady decline between 1851 and 1881, and a very steep decline between 1881 and 1901.

The steepest regional declines were to be found in those areas where the cotton industry was relatively least important, especially in the harbour areas of Valletta and the Three Cities. The trends for the Valletta district are not really significant, for the cotton industry had virtually disappeared there by the mid-nineteenth century, and the numbers employed never rose to a hundred after
FIG. 17
Cotton spinners as % of working population.
(By districts).

FIG. 18
Cotton weavers as % of working population.
(By districts).

See Appendix D for district details.
1861. In the Cottonera district, the cotton workers formed 12% of the working population in 1851. At that time, the Cottonera cotton workers formed 13.8% of the total employed in the industry throughout Malta, but in 1901, they amounted to only 6.1%. In the Cottonera district, the decrease was very large numerically, - from 1,463 in 1851 to 7 in 1901.

The cotton industry followed a similar trend of increasing decline in relative importance in the group of villages Birkirkara-Attard-Lija-Balsan. Almost identical, except for a recovery amounting to a relative increase between 1871 and 1881, was the trend for the group Qormi-Luqa-Tarxien-Pawla. It can be seen from Figs. 17 and 18 that this recovery between 1871 and 1881 was due entirely to an increase in the number of spinners in 1881. There was no similar increase in weaving. The reason for this must be sought in the seasonal differences between the times at which the Census Reports were made. The demand for spinners declined steadily after the cotton harvest in autumn, and in the rural areas, there was some competition between spinning and farming for female labour. More people would normally be spinning in autumn than in spring, and comparisons between Census Reports which were made at different seasons are not, therefore, strictly valid. This must be taken into consideration when
examining the trends of the cotton industry before 1881 (see also Section D, Chapter 3).

Another change in census procedures must be taken into account when examining regional changes between 1881 and 1891. Many of the small hamlets in the parish of Rabat were in fact settled from Mosta, and until 1891, the population of these hamlets was returned as inhabiting the Mosta district. In 1891, for the first time, this population was recorded under Rabat, thus causing anomalies in the trends not only of regional population growth, but also of the relative importance of various industries.

One general trend which applied to all districts apart from Rabat-Dingli was a sharp decline in the relative importance of the cotton industry after 1891. The industry in the Rabat district declined least of all, but there were marked differences between spinning and weaving. Spinning declined in accordance with the general trend, but there were fluctuations in weaving. The reasons for these irregularities lie in the fact that unlike other areas, in Rabat there were strong and conscious attempts to revive the industry. As the cotton industry declined, weaving was relegated to the status of a traditional craft industry, and as such it remains to this day one of the main tourist attractions of Rabat.
There were also certain general differences between the trends of spinning and weaving respectively. The steepening of the trend of decline after 1881 which has been noted above was most marked in spinning. The decline in weaving was more uniform. In both 1851 and 1881, spinning accounted for nearly 70% of the cotton workers, but only 55% in 1891 and 40% in 1901. The total decline in numbers employed in the cotton industry between 1851 and 1901 amounted to 8,819. Of those, 6,499 were spinners; after 1881, weaving declined by 2,320 and over the whole period, suffered a decline of 70% compared with 93% in spinning.

The greatest decline in numbers of spinners took place after 1881, especially in the areas of Zurrieq and Zabbar. In both these areas the decline was sudden. The decline was sudden too in the Zebbug area, although it did not appear statistically until a decade later (1891-1901). Elsewhere, the decline was more regular, although tending to steepen towards the end of the century.

Malta may thus be divided into regions as follows, on the basis of rates of decline in the relative importance of spinning:

(1) the harbour area of Valletta and the Three Cities. Spinning in this area was declining in 1851, and the decline steepened, so that the industry had almost
disappeared by 1901.

(2) The area fringing the harbour area to the N.W., Birkirkara, Attard, Lija, Balzan, and stretching to include Mosta, Naxxar, Gharb, and Mellieha. The trend here was similar to that in (1), although not so steep, and in the N.W. rural areas, not as uniform.

(3) Rabat, and the districts fringing the harbour to the south and east (from Gormi to Zabbar, including the Zurrieq area). In these areas, spinning declined very sharply after 1881.

(4) Zebbug and Siggiewi, where the decline came after 1891.

Regional trends in the decline in weaving were more complicated, but again, four regional patterns may be discerned:

1. the harbour area of Valletta and the Three Cities. In this area, weaving was carried on at a low level throughout the period, and was practically nonexistent by 1901.

2. the southern and western fringes of the harbour area (Birkirkara to Pawla), where weaving declined very considerably.

3. outer-fringe areas (Mosta, Zurrieq and Zejtun districts) where there was an overall decline, but with considerable
irregularities in individual trends.

4. Rabat and Zebbug, where there was least decline.

From a consideration of all these trends, one of the most important features appears to be the increasing rate of decline after 1881, which came about when the spinning areas of Zejtun, Zurrieq, and to a less extent Qormi and Rabat, assumed the rate of decline already prevalent in the rest of the Island. The further steepening of the decline after 1891 was due to this trend having affected Zebbug spinners.

Several regions emerge as having particular characteristics:

(1) The harbour area appears as a region where cotton working was not very important by the second half of the nineteenth century. Previously, this area, particularly Cottonera seems to have had a large number of spinners - even in 1851 there were 1,209 but this figure had declined to 7 in 1901.

(2) The rapidly growing villages fringing the harbour area to the south and west, particularly Birkirkara and the Three Villages. There were about the same number of cotton workers in this area as in the harbour area during the period, and numbers declined rapidly, but cotton workers were more important
relatively, and there was a significantly higher level of weaving.

(3) The north-west, - Mosta-Naxxar-Gharb-Mellieha.
In this area the industry was more important relatively than in (1) and (2), and it declined less, because of the persistence of weaving. At the beginning of the period, spinning and weaving were of almost equal importance, but whereas spinning declined rapidly at rates comparable with (1) and (2), the decline in weaving was much less.

(4) The south-eastern extremity from Zurrieq to Zabbar.
This area was similar to (3). It was the main centre of spinning during the period examined (containing over one-third of all spinners), until 1881, when the great decline in spinning began. As in (3), weaving declined to a lesser extent:

<table>
<thead>
<tr>
<th>Year</th>
<th>Spinners</th>
<th>Weavers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>2,534</td>
<td>715</td>
</tr>
<tr>
<td>1901</td>
<td>325</td>
<td>226</td>
</tr>
</tbody>
</table>

(5) The central area of Zebbug-Siggiewi. Initially this area had more spinners than weavers, but it stands out as a very important weaving centre, and although spinning declined here eventually, weaving persisted much more:

<table>
<thead>
<tr>
<th>Year</th>
<th>Spinners</th>
<th>Weavers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1851</td>
<td>1,029</td>
<td>809</td>
</tr>
<tr>
<td>1901</td>
<td>92</td>
<td>204</td>
</tr>
</tbody>
</table>
(6) Rabat. Similar in some respects to (5), the cotton industry declined least of all in Rabat. Weaving was here always more important relatively than spinning.

The explanation for the differential decline of the cotton industry in Malta must be sought not only in the external factors of markets - this, true, was the main factor in deciding whether or not the industry could exist - but also in the interplay of two further influences. These two influences are:

1. the pattern and function of the settlements of "native" Malta - a hierarchy of cities and villages which had its roots in the period before the arrival of the Knights, and developed further under the Knights. This pattern had Mdina as its capital, and the large villages like Zebbug and Qormi had more functional importance than they had in the mid-nineteenth century.

2. the growth and increase in economic importance of the harbour area, together with the rapid spread of its economic influence during the second half of the nineteenth century. This growth was directly related to fundamental economic changes discussed in Chapter 2.

The heart of the economic life of the cotton industry lay in "Old Malta" - in Rabat and Zebbug. Here were the
greatest skills in weaving. The rest of the Island may be regarded as a fringe area around this nucleus and generally concentrating on spinning. From 1800, the cotton industry began its decline with the loss of overseas markets. It persisted just so long as there was sufficient economic incentive amongst the poverty-stricken lower orders of Maltese society, but with the general improvement in economic conditions after 1850 it declined rapidly. The rise in Maltese living standards came through opportunities for work in the harbour area. The population nearest the harbour profited first, and there was a spreading outwards, as more and more of the Island sought work in the port. As the attraction of the harbour area spread, so interest in the declining cotton industry decreased. The cotton industry persisted where the skills were greatest - where it now exists as a craft industry. Elsewhere, the loss of the cotton industry, and the relegation of the role of the rural population to that of either pure farming, or that of an unskilled labour force dependent for employment on opportunities in the harbour area.

The general and regional history of the cotton industry therefore both corroborates the emerging picture of change and can only be understood in terms of such socio-economic change.
There is no doubt about the importance of public transport in stimulating daily movement in the Island. Nowadays the only settlements which can be described as isolated are a few hamlets in the far west (e.g. Bahrija, Mtaheb, Labatija, etc.), but before bus services arrived much more of the Island could be called remote. The writer has spoken to a woman who is over a hundred years old, and who claims to have visited Valletta only twice in her lifetime, yet her home, a cave-house, at is-Salib near Rabat, is no more than eight miles from the capital.

The development of public motor transport was of enormous social and economic importance to the outer villages of Malta, in that it made possible a greater choice of occupation. Since motor transport has been available, the population of the outer villages has tended to turn increasingly to the harbour area for regular employment in the Dockyard, in Government Departments and in private industrial and commercial concerns. This trend has been strengthened by a general effort on the part of the rural community to improve its social and economic status by seeking employment other than farming. Workers in the harbour area are not only better paid than farmers, but they do not have the social stigma attached
to a person who finds his living in the fields.

It is therefore relevant here, before considering the progress of this trend, to trace the growth of the transport system upon which its recent acceleration has depended.

The development of public transport in Malta.

The most important developments in public transport came in the 1920's and 1930's with the arrival of motor buses in large numbers. Before that time there had been transport in a much more limited form, serving only a few regions.

In 1883, a railway opened which ran from Valletta to Rabat via Hamrun, Birkirkara and Attard. This line was later extended by means of a tunnel to the Military Hospital at Mtarfa. Services varied, but they were most frequent between Valletta and Birkirkara, a journey which took about 15 minutes(3).

In 1906 a tramway opened from Valletta to Birkirkara, and later lines were added to Zebbug and Kospikwa, but by 1931, both railway and tramways had stopped operating, and had been replaced by motor buses.

Details about the efficiency of the railway and the tramways are not available, except that after the opening of the tramway to Birkirkara in 1906 the railway almost became bankrupt(4). The extent of their importance in providing adequate facilities for the outer villages is
uncertain, although only Rabat, Zebbug, and villages on the route (Hamrun, Qormi, Birkirkara and Attard) were affected. The railway did run an early train from Rabat to Valletta, which left at 5:20 a.m. and arrived just before 6:0 a.m., and which was described in the timetable as a "workmen's train", but people who remember the trains and trams describe them as being very slow and unreliable. It was stated in evidence before the Royal Commissioners in 1912 that the railway carried most of its passengers between Valletta and Birkirkara, but there were others, mainly workmen, who came from Attard and Notabile (i.e. Rabat). Before the opening of the railway any men in these villages who worked in the harbour area had to lodge there during the week, and they only spent week-ends in their home villages. The village people disliked living in what were described as "small and unhealthy rooms in Valletta", and this practice stopped as soon as transport became available for daily travel(5). The extension of the tramway to Zebbug probably stimulated daily movement from that village also.

The development of bus services in Malta has been traced from the publication (in the Government Gazettes) of timetables for various routes. The appearance of these timetables probably post-dated the beginning of the services themselves, but it is assumed that the order in
which they were published (Table — ) indicates the stages by which services were extended.

Bus services were first mentioned in the Government Gazette in 1922, when a tariff of fares was published for journeys between Valletta and Sliema via Pieta and Msida. From then until 1927 all timetables concerned the Valletta-Sliema route, on which services gradually became more frequent. Between January 1923 and October 1924 the number of scheduled daily journeys rose from 50 to 124. The Valletta-Sliema service was at this time an addition to, rather than a replacement of the ferry service across Marsamxett, e.g. in 1923, there were three periods of operation:

- morning - 6 a.m. to 8.30 a.m.
- noon - 12 to 1.30 p.m.
- afternoon - 3 p.m. to 10 p.m. (winter)
  4 p.m. to 11 p.m. (summer)

The provision of morning services was optional, but the noonday services were obligatory if bad weather caused the suspension of ferry services.

Only in 1927 did the appearance of timetables indicate that buses were running from Valletta to Kospikwa, Birkirkara and Zebbug, although these services had probably been in operation for some time. Even in 1927, when the Valletta-Sliema tariff first appeared, the fixing of a general tariff for the Island suggested that other services
may have been in operation.

After 1927, a spate of timetable publications indicate an almost complete network of services by 1932 (Fig. 19). It would seem therefore that the important period of public transport development in Malta was the 1920 decade.

The pattern of services which had come into existence by the early 1930's has remained almost unchanged, except for the addition of some special services (e.g. Xghajra-Kospikua-Zabbar), and increases in the frequency of services consequent upon the increasing mobility and size of the population.

The present pattern of bus services brings into sharp relief the extent to which daily movements of the population are confined to journeys to and from the harbour area. The pattern is in no way a network, for services do not make interconnections between villages, - they merely link up all the villages with Valletta (fig. 20). Altogether, sixteen bus companies run services between Valletta and the other settlements, each company having the service monopoly of one village or group of villages.

One peculiar result of this system has been the formulation of regulations to prevent the "piracy" of passengers taking place when two or more bus routes coincide. For example, the Mellieha bus passes through Pieta, Meida,
Birkirkara and Mosta, but it may not set down passengers on the Valletta side of Mosta. Similarly on the return journey, it may not pick up passengers between Mosta and Valletta.

This arrangement serves to emphasise the fact that the bus services are in no way complementary, their only purpose being to take passengers to and from Valletta.

A further result of this service pattern is that although communications between the villages and Valletta are, on the whole, good, movement between the villages themselves is not possible without going in towards Valletta and changing buses, - e.g. (i) Mellieha, the furthest village from Valletta (about 13 miles), is reached in an hour, and buses run every half-hour (every quarter from Mellieha in the early morning, and every twenty minutes from Valletta in the later afternoon); (ii) a bus journey from Rabat to Siggiewi, only 3 miles distant, would entail going first to Hamrun, and then catching the Valletta-Siggiewi bus - a journey which might take an hour or more.

Variations in the hourly frequency of bus services emphasise the importance of daily journeys to and from work in Valletta and the harbour area. This is particularly marked in the case of the villages, where an early morning rush period is clearly defined.
FIG. 21  DOCKYARD WORKERS TRAVELLING ON PRIVATE BUSES

- 100 passengers.
Average no. of buses per hour at different time of day (6)

i between Valletta and the villages.
ii " " " " Three Cities (and Pawla).
iii " " " " Sliema.

<table>
<thead>
<tr>
<th></th>
<th>a.m.</th>
<th>p.m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.30-7</td>
<td>7-9</td>
<td>9-11</td>
</tr>
<tr>
<td>i</td>
<td>130</td>
<td>139</td>
</tr>
<tr>
<td>ii</td>
<td>25</td>
<td>28</td>
</tr>
<tr>
<td>iii</td>
<td>65</td>
<td>77</td>
</tr>
</tbody>
</table>

The full extent of daily movement to the Dockyard (i.e. in ii) does not appear from this table. The reason is that these figures are of movements to and from Valletta alone, and such is the extent of daily movement to the Dockyard that special services have developed direct to Kospikwa from Pawla, Hamrun, Xghajra, Zejtun, Marsaxlokk and Gudja. These special services run between 6 a.m. and 6.45 a.m. in the winter, each bus leaving as it fills up. From other villages in the west and north, the daily movement to the Dockyard is made in private buses, of which 28 were registered with the Police in 1957 (fig. 21).
The Maltese Dockyard

Since the Knights began the development of what is now Dockyard Creek in 1530, the Dockyard has gradually increased in importance, and during the last hundred years it has been the main source of income to Malta. The way in which the area from which the Dockyard draws its employees has increased demonstrates how the whole Island of Malta has gradually become a labour reservoir for activities in the harbour area.

Statistical note: In March 1957, the Admiralty made available to the writer details of the residences of all employees in H.M. Dockyard in that year. From these figures it has been possible to delimit accurately the area from which the Dockyard draws its labour, and to make some assessment of the importance of employment in the Dockyard to various regions in the Islands.

The growth of the area from which the Dockyard draws its employees has been analysed by comparing the present distribution of workers with estimated distributions in the Census years 1901 and 1921. The Census Reports do not distinguish all those who were employed in the Dockyard. In 1921 for example, the total number of persons employed in the Dockyard was stated to be 8,985, but details of residences were only given for officers, clerks, writers and "other employees, exclusive of skilled labourers" who only numbered 2,011. Similar details for skilled workers
were not included, so the occupational group described as working with iron, steel, tin etc.\(^{(7)}\), has been included in the calculations. Most of these men were fitters, turners, boiler makers, etc., and it is unlikely that many of them would find employment outside the Dockyard. In this way, a sample group numbering 5,351 was obtained. This figure is 60% of the total Dockyard labour-force in 1921, and the writer has assumed that from the point of view of residences, it is representative of the total.

A similar technique was applied to 1901 Census figures.

**The drawing-area of the Dockyard.**

By 1901 a certain group of settlements had developed into what may be termed the "traditional Dockyard area". This area lies to the S.E. of the Dockyard itself, and comprises the Three Cities (Kospilwa, Senglea, Vittoriosa) and the villages of Zabbar, Zejtun, Tarxien, Pawla and Kalkara. These places are the nearest settlements to the Dockyard, and have at all times supplied the bulk of its labour. On the other side of Grand Harbour, Valletta, Floriana, and the contiguous settlements round to Sliema have always been an important residential area for the clerical staff of the Dockyard. The traditional area to the S.E. has always been the home of industrial workers and labourers.

In 1901, most of the workers in the Dockyard (about 80%...
came from the centres named above. 70% of them came from the traditional area, and as a source of employment to the Islands as a whole the importance of the Dockyard was therefore limited (fig. 22).

By 1921, 8,985 Maltese were employed in the Dockyard. The proportion coming from the traditional area had fallen slightly, but it was still over 60% because distance from the Dockyard was still an important factor. The increase outside the traditional area was mainly in settlements on the other side of the harbour, and only about 17% came from villages more than two miles from the Dockyard. About half of this 17% was accounted for by villages in the S.E. of the Island (fig. 23).

Employment in the Dockyard was certainly attractive to people in the villages, but they preferred to change their place of residence rather than travel in daily (see p. 139).

In 1931 it was possible to estimate the extent of the daily movement to work in the Dockyard. The 1931 Census Report included details of the numbers travelling daily to work in the Three Cities (fig. 25), almost all of whom must have been dockyard workers. Transport was by that time available, but as yet not a great number of people came to the Dockyard from further afield than two miles distance.
RESIDENCE OF DOCKYARD WORKERS LIVING MORE THAN 2 MILES FROM THE DOCKYARD, 1901 (AS %AGE TOTAL DOCKYARD WORKERS).

FIG. 22

KEY:

- 3%
- 1%
- 0.5%
- 0.1%

D - DOCKYARD
RESIDENCE OF DOCKYARD WORKERS LIVING MORE THAN 2 MILES FROM THE DOCKYARD, 1921 (AS %AGE TOTAL DOCKYARD WORKERS).

FIG. 23
RESIDENCE OF DOCKYARD WORKERS LIVING MORE THAN 2 MILES FROM THE DOCKYARD, 1957 (AS %AGE TOTAL DOCKYARD WORKERS)

FIG. 24
FIG. 25 NUMBERS TRAVELLING DAILY TO WORK IN THE THREE CITIES, 1931
FIG. 26. RESIDENCE OF MALTESE DOCKYARD WORKERS, 1957.
FIG. 27  DOCKYARD WORKERS
PROPORTION OF TOTAL POPULATION 1957
In 1957 the Dockyard labour-force had risen to 12,572. The traditional area was still the most important single source, but its proportion had fallen to less than 50%, whereas over 30% came from villages more than two miles away (Fig. 24 and 26, and Appendix F). In 1921 the numbers travelling in from the outer villages were probably less than 2,000; in 1957 they amounted to nearly 8,000.

A further significant change in the distribution of workers was the increasing proportion coming from the north and west of Malta. This part of the Island has remained strongly agricultural, especially N.W. of the Victoria Lines and on the Rabat-Dingli Plateau, and the importance of Dockyard workers there is not measured in terms of their contribution to the whole Dockyard labour-force, but by their contribution to the economic life of the villages.

For example, in the sample of residences of Dockyard workers for 1901, Dingli was not represented. At that time, out of a working population of 362, 246 were engaged in farming pursuits and 44 worked in local quarries. In 1921, only three men working as fitters may possibly have been employed in the Dockyard out of a working population of 444, whereas 351 were farmers. But in 1957 there were 94 Dockyard workers compared with 300 farm workers out of
a working population of c.750. These 9% Dockyard workers represented less than 1% of the total Dockyard labour-force, but about one eighth of the working population of Dingli. Moreover, Dockyard workers earnings are higher on the average than those of farm-workers, so that their economic importance is greater than their numerical strength.

Dingli is about 9 miles from the Dockyard, and even Mellieha, the remotest of all villages and 12 miles from the Dockyard, had 50 men employed there in 1957.

The traditional Dockyard area S.E. of Grand Harbour still emerges as the most important source of labour at the present time. Furthermore, it is in the traditional area that the Dockyard employees form the greatest proportion of the working population. The numbers employed in the Dockyard and their proportion of the working population decline as distance from the Dockyard increases (fig. 26 and 27). The remote N.W. beyond the Victoria Lines stands out as an area where Dockyard workers are fewest.

However, that some men do in fact come from the remote villages is significant, for it means that the isolation which existed in many places in 1921 has been broken down.

\[N.B.\] The relatively low importance of Luqa, Kirkop and Safi is probably related to alternative work on the airfield. Unfortunately figures are not available.
Private Industry

There is also a considerable daily movement of labour to private firms situated in the harbour area. The greatest number of these firms are located to the N.W. of Grand Harbour, away from the traditional Dockyard area (i.e. in Valletta, Floriana, Pieta, Msida, Marsa, Namrun and Birkirkara). Statistics concerning the residences of people engaged in private industry are unreliable, but the totals suggest that although about 65% work in the places mentioned above, only about 40% live there.

The largest private firm in Malta in 1957 was a brewery employing 368 people. Situated to the south of Birkirkara, it drew its labour from all parts of the island. Similarly, the largest flour mill in Malta, employing 50 men in 1957, is situated beside the Marsa, but draws its labour from a wide area (fig. 28).

Government Employees

Of the 17,000 employed by the Maltese Government in 1957 about 7,000 were tradesmen and labourers. Most of these were in the Public Works Department, and were attracted from all over the Island, to work on constructional projects (schools, roads, drainage, etc.). Apart from these and the Police, most of the civil servants work in Valletta, where all the main Government Departments are to
FIG. 28 SOME WORKERS IN PRIVATE INDUSTRY 1957

Key:
- Density
- Stone mill
- 50
- 10
be found. Most of these people come from the suburban residential areas, especially Sliema, St. Julian's, Gzira, Hamrun, Birkirkara and Pawla, but some come from the outer villages.

In 1946, over 20,000 were returned in the Census under Public Administration (including Imperial Service), and about 63% lived around the harbours, in the residential area mentioned above. There is therefore a considerable daily movement from the outer villages.
Travelling "shops" and Commercial Bakeries.

In the same way that the development of motor transport has facilitated the daily movement of labour into the harbour area, so too has it extended the commercial links between the urban centres and the villages, and among the villages themselves.

Hawkers (or "petty vendors" and "hucksters" as they are sometimes called in the old Census Reports) have always been a feature of Maltese internal commercial life, and in 1851, there were about 1,500 in the Island(8). People selling the produce of a village have tended to look for sales in adjacent villages where they felt they could ask a better price(9).

Before the advent of motor transport, these hawkers carried their wares in carts, and their sphere of operations was limited. Distances travelled were short, except when there was the attraction of a large market — e.g. many people walked daily from Zejtun to the market in Kospikwa with farm produce before World War II. The Three Cities were evacuated during the war, and many people did not return. The market in Kospikwa was not revived, and it has been largely replaced by a new market in Paula.

After the war, a large number of used services' vehicles were sold off in Malta, and many were bought by hawkers who were thus enabled to operate over a much
greater distance. The activities of these modern hawkers are not in any way haphazard, for they make regular rounds of a definite group of villages. Before the war, the goods carried were mostly agricultural produce, and the majority of the hawkers were village people, but now many of the urban shopkeepers have bought vans and invaded the rural market.

Most of these more recent travelling "shops" coming from the urban area deal in draperies and upholstery. Previously people had to go into Valletta when they wanted to buy clothes or cloth, which was not very often. Nowadays country people still go into Valletta for special clothes (mainly for weddings), but they prefer to buy their odds and ends from the travelling "shops". The success of these businesses is related to a developing taste for more and varied clothing amongst the rural community(10). The arrival of a draperies van has been made into quite a social occasion by the village womenfolk.

Figure 29 shows the movement of hawkers to and from Zejtun, and to and from Mellieha. The details of these movements are as follows:-
(1) Zeitun

(a) **Movement of goods from Zeitun**

<table>
<thead>
<tr>
<th>Villages</th>
<th>Commodities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birzebbuga</td>
<td>paraffin; groceries; vegetables; draperies</td>
</tr>
<tr>
<td>Marsaxlokk</td>
<td>&quot;</td>
</tr>
<tr>
<td>Ghaxaq</td>
<td>&quot;</td>
</tr>
<tr>
<td>Gudja</td>
<td>&quot;</td>
</tr>
<tr>
<td>Kirkop</td>
<td>&quot;</td>
</tr>
<tr>
<td>Qrendi</td>
<td>&quot;</td>
</tr>
<tr>
<td>Mqabba</td>
<td>&quot;</td>
</tr>
<tr>
<td>Tarxien</td>
<td>&quot;</td>
</tr>
<tr>
<td>Fgura</td>
<td>&quot;</td>
</tr>
<tr>
<td>Luqa</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

(b) **Movement of goods to Zeitun**

<table>
<thead>
<tr>
<th>Villages</th>
<th>Commodities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valletta</td>
<td>draperies; crockery and kitchenware</td>
</tr>
<tr>
<td>Zabbar</td>
<td>draperies; groceries</td>
</tr>
<tr>
<td>Marsaskala</td>
<td>fish</td>
</tr>
<tr>
<td>Marsaxlokk</td>
<td>fish</td>
</tr>
<tr>
<td>Ghaxaq</td>
<td>crockery and kitchenware</td>
</tr>
<tr>
<td>Kirkop</td>
<td>draperies</td>
</tr>
<tr>
<td>Zebuga</td>
<td>vegetables</td>
</tr>
<tr>
<td>Qormi</td>
<td>bread</td>
</tr>
<tr>
<td>Pawla</td>
<td>draperies</td>
</tr>
</tbody>
</table>

The striking feature of this pattern of movement is
the westward extension of Zejtun's commercial links by motor vans beyond the area in which carts operate, i.e. from Zejtun as far as Qrend and Mqabba, and to Zejtun from Valletta and Zebbug. This unilateral extension, westwards of commercial links is to be expected, for the only other direction of possible expansion is N.E. to Marsaskala, but this latter place has already very strong links with Zabbar. It is apparent too, that Zejtun travelling "shops" have not penetrated the large centres of Zabbar, Pawla or Zurrieq.

(ii) Mellieha

(a) Movement of goods from Mellieha

<table>
<thead>
<tr>
<th>Village</th>
<th>Commodities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birkirkara</td>
<td>Fruit; vegetables; eggs; fish</td>
</tr>
<tr>
<td>Valletta</td>
<td>&quot;</td>
</tr>
<tr>
<td>Sliema</td>
<td>&quot;</td>
</tr>
<tr>
<td>Floriana</td>
<td>&quot;</td>
</tr>
<tr>
<td>St. Paul's Bay</td>
<td>&quot;</td>
</tr>
</tbody>
</table>

(b) Movement of goods to Mellieha

<table>
<thead>
<tr>
<th>Village</th>
<th>Commodities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hamrun</td>
<td>Clothing and haberdashery; coffee;</td>
</tr>
<tr>
<td></td>
<td>crockery and glassware; paste;</td>
</tr>
<tr>
<td></td>
<td>tobacco and cigarettes.</td>
</tr>
<tr>
<td>Gormi</td>
<td>Confectionery; preserved fish and meat;</td>
</tr>
<tr>
<td></td>
<td>groceries.</td>
</tr>
<tr>
<td>Location</td>
<td>Goods</td>
</tr>
<tr>
<td>---------------</td>
<td>------------------------------------------------</td>
</tr>
<tr>
<td>Birkirkara</td>
<td>Clothing and haberdashery; ice-cream.</td>
</tr>
<tr>
<td>Tarxien</td>
<td>Clothing and haberdashery;</td>
</tr>
<tr>
<td>Floriana</td>
<td>Crockery and kitchen utensils</td>
</tr>
<tr>
<td>Mosta</td>
<td>Bread; coffee; ice-cream.</td>
</tr>
<tr>
<td>St. Paul’s Bay</td>
<td>&quot;</td>
</tr>
<tr>
<td>Zebbug</td>
<td>Preserved fish and meats.</td>
</tr>
<tr>
<td>Rabat</td>
<td>Paste</td>
</tr>
<tr>
<td>Balzan</td>
<td>&quot;</td>
</tr>
<tr>
<td>Msida</td>
<td>Ice-cream</td>
</tr>
</tbody>
</table>

Mellieha is much more an agricultural village than is Zejtun (as can be seen from the local “exports”), and is therefore much more dependent on outside supplies of other goods.

It is significant that horse-drawn carts are no longer used in the Mellieha area except by farmers. Mellieha is the most remote of the Maltese villages, and between Mellieha and the harbour area are some very steep hills. According to the headmaster of the local boys’ school, the development of motorised transport since the second World War soon brought about the total elimination of horse-drawn carts.

A series of commercial linkages for the whole Island similar to that outlined for Zejtun and Mellieha presents a most intricate picture. For each individual settlement,
these links with other settlements, either by sending or receiving goods, are well-defined, but for the Island as a whole the overlapping of individual patterns makes a complex network of inter-linkages in which the defining of particular functional areas becomes difficult except on a general scale.

The involved nature of the whole system may be established by taking daily bread deliveries throughout Malta as an example.

**Daily movement of commercially baked bread**

Figure 30 shows the estimated quantities of subsidised flour baked commercially every fortnight in each locality\(^{(11)}\). This gives some indication of the baking capacity of each locality, although it does not provide a complete picture, limited as it is to those bakeries making bread from subsidised flour. The figures refer to 201 bakeries, whereas there are estimated to be about 280 bakeries in all\(^{(12)}\), counting those baking with non-subsidised flour (i.e. for cakes etc.).

Figure 31 shows the regional variation in per capita bread production. The importance of Qormi as a centre of production for the harbour area and the densely populated central lowland is apparent. Mosta is a similar centre supplying the N.W., although its absolute production is
FIG. 31  BAKING CAPACITY AND POPULATION

KEY:

POPULATION PER BAG OF FLOUR BAKED PER FORTNIGHT

0 - 9
10 - 19
20 - 49
50 - 99
100 +

MILES
FIG. 32 DAILY MOVEMENT OF BREAD

KEY

QORMI DISTRIBUTIONAL AREA
MOSTA DISTRIBUTIONAL AREA.
GŻIRA DISTRIBUTIONAL AREA.

OTHER DAILY MOVEMENTS.

MILES
Qormi is the traditional centre of baking in Malta (hence its name "Casal Fornare" during the period of the Knights) and around it is a zone of lesser bread production. Only in the extreme N.W. and E. of the Island does the scale of production again become significant, (i.e. in Mellieha, St. Paul's Bay, Mgarr, Zabbar and Zejtun).

Figure 32 shows the pattern of daily bread distribution. In this, the area served by Qormi is again defined as the populous central lowland area, but not the extreme east of the Island. The two most distant settlements served by Qormi are Dingli and Birzebbuġa, both of which represent recent extensions of the service area following the development of motor transport. The extension of Qormi business into Dingli gives some indication of the manner in which commercial links grow in Malta. Until about ten years ago, no Qormi bread reached Dingli, but several Qormi bakers served Rabat people. One of these customers moved from Rabat to Dingli, and his Qormi baker continued to supply him because he was using motor transport. From this connection, the present trade from Qormi to Dingli has grown up, and there are now two Qormi vans serving Dingli.

Before the advent of motor transport, Zejtun was probably the furthest village supplied from Qormi - i.e. about
4 miles was the greatest distance travelled in the days when carts were the means of transport. Beyond a zone stretching about four miles around Qormi the scale of local bread-baking once more became important (fig. 31).

Within this general pattern, figure 32 indicates the complexity of inter-village linkages which have grown up much in the same way that Qormi business has recently been extended to Dingli.
**Ploughing contracting**

A completely new set of rural linkages has developed in Malta since the appearance of the agricultural tractor there. At the end of World War II there were very few tractors in the Island, but recently there has been an increase.

Tractors have generally been considered unsuitable for use in Maltese farming. The main reasons put forward in support of this argument were that Maltese fields are generally too small and difficult of access (especially terraced fields on steep slopes), and the soil cover is often so thin that ploughs would break on contact with the underlying limestone. It is for these reasons that the mechanisation of Maltese farming has largely been confined to a widespread introduction of the small hand cultivators. However, a considerable number of fields are capable of being worked by tractor driven ploughs, and, since the second World War, the increasing scarcity and high costs of agricultural labour resulting from the move away from the land, have compelled many farmers to hire the services of a tractor during the busy ploughing season of late summer.

---

*M. Caucli of Mgarr claims to have imported the first tractor into Malta in about 1930, and Philip Agius of Zebug states that immediately after World War II there were about 4 in the whole Island.*
Several mechanically minded farmers have been quick to seize the opportunities presented by this current labour shortage, and there are now between 40 and 50 tractors operating in Malta alone\(^2\). Figure 33 represents an attempt to locate the areas in which these tractors are used. The importance of the physical nature of the fields is apparent in their distribution - i.e. the high proportion of tractors operating in the down-faulted lowlands of the N.W. (Wied tal Pwales, Wied il Ghasel and the Bingemma Lowlands), where the land is generally flat, and the soil fairly deep, and the absence of tractors in the rugged Naxxar-Gharbghur uplands.

Certain features of the ploughing contracting business recall characteristics of other commercial activities outlined above. In general, the tractor owners do most of their ploughing within their own localities, but the majority of them also do business in other localities too. The extension of business areas through personal contacts has occurred in this, as in other commercial activities, and like the pattern of bread distributions described above (fig. 32), the total pattern of tractor movements is complex. In individual cases,

\footnote{The writer obtained a list of 26 licenced tractors from the Police, but came to hear of several others.}
irrational movements appear which mean a considerable wastage of time. The best example of this is the case of one of the tractor owners in Mgarr in the N.W. of the Island, who regularly does some ploughing in Benghajsa, in the extreme S.E.

Ploughing contracting is now a most important agricultural service industry, but given any labour redundancy in the harbour area and a move back to the land, it would decline as the number of agricultural workers increased.

From these examples it may be observed that a radical change has taken place in the space relationships of Maltese villages, both with each other and with the harbour comurbation, since the development of quicker transport facilities. The development of public motor transport between 1920 and 1930, and in the use of vans and cars for commercial purposes since World War II, have been especially important.

As a result of these developments, the Maltese conception of significant distances has changed, and the isolation of a large part of the Island has been broken down. Before the arrival of motor transport, 2 miles was a long way to walk to work, and in the sphere of internal commerce, ½ miles was the limit of operations of the baking industry in Qormi, an industry which had the
backing of a long tradition. Nowadays, men from Mellieha travel daily to the Dockyard to work, and their wives buy clothes from vans coming from Birżebbuġa, Hamrun and Tarxien.

The harbour area now emerges as a centre of great economic importance to the whole Island in that there is employment there not just for the populations of the old urban centres and the suburbs, but also for the village populations. The greater mobility of the village populations and their greater dependence on the harbour area is seen in the daily movement of labour to and from the Dockyard and other centres of employment, and the considerable extension of inter-village commercial links is indicative of greater economic unity.

Conclusion

These sample studies of particular sectors of the internal economy of Malta illustrate different phases or aspects of the same overall trend. The decline of the cotton industry is viewed against a background of the attraction of the urban nucleus on the one hand, and the extension of its characteristics on the other. The development of public transport and the pattern of present-day labour movements, together with internal commercial links, emphasise the continuation and reinforcement of this
There are therefore two opposite but closely related facets of the influence of the urban area on Maltese life. One, relating especially to the movement of labour, is centripetal in that the region around the harbour is tending to attract workers from even the remote villages. The other, evident particularly in commercial matters is centrifugal in that through the medium of travelling shops, the commercial influence of the urban area is carried into rural Malta. In every way, therefore, the economic importance of "il-Belt" is permeating all corners of the Island.
The main fact which emerges from this consideration of economic trends in Malta since 1800 is that the Maltese economy has become less and less capable of self-sufficiency. The decline in Malta's balance of payments has been examined in Section C, Chapter 2. The serious nature of the present situation is indicated by a visible trading deficit of almost £23 millions (1957), which was more than 90% of the value of retained imports.

The trends of the various sources of Maltese income have also been examined. These trends have indicated that since 1800 the basis of Maltese income has ultimately rested on the purely fortuitous geographical factor of situation. This situation has at different periods had certain strategic and commercial advantages which the Maltese have turned into cash. Income derived from local resources and industry (i.e. agricultural produce and manufactures) has always been very small.

As has been indicated in Section C, Chapter 1, the value of the commercial advantages of Malta has fluctuated. There have been periods during which Malta benefited, either through direct trading or by providing shipping facilities such as bunkering, but these periods
have been exceptional rather than normal. The idea held by many Maltese during these periods, that the prosperity was permanent, was a delusion.

Only at one period was the Island's commercial advantage so great that it became a trading centre of the first importance. This was during the Napoleonic Wars, when the politico-economic policies of Britain and France resulted in Malta becoming an entrepot for circuitous and contraband trading. When these policies ended in 1814, the need for a suitable centre in the Mediterranean from which abnormal trading could be carried out disappeared, and Malta as an entrepot was quickly eclipsed by the continental ports.

The bunkering trade of the last quarter of the nineteenth century was also the result of a unique combination of circumstances. During this period steamships were still small and needed frequent refuelling. Furthermore, Western Europe, especially Britain, was still importing large quantities of grain from the Black Sea ports, and Malta was conveniently situated as a coaling station. This trade disappeared, first, as the wheatlands of the New World assumed the role of Britain's major supplier, and, second, as the increasing size of ships enabled them to travel further without refuelling.

Since the first World War, trade has been very slack
in Malta, but because of the desperate situation of the
economy, efforts are being made to bring about an increase.
In October 1959 the British Government announced a grant
of £2½ millions to Malta, part of which was to be spent
on improving the commercial harbour (for it has been
claimed that the low level of trading is largely the result
of poor harbour facilities, - e.g. there are no deep-
water quays). It is as well to remember, however, that
such commercial advantages as Malta has enjoyed periodi-
cally have stemmed entirely from the factor of location,
and from unique circumstances which made the location
valuable. It is difficult to see how Malta can have any
permanent commercial advantage as an entrepot, or how any
assistance to the national economy may be expected from
that direction.

The three major trade booms were of only temporary
importance, and the real source of Malta's general pros-
perity since 1800 has been the colonial link with Britain.
This again has been the result of locational advantage.
From the first, Malta's value to Britain has been as a
strategic base in the Mediterranean. In this respect,
the advantages of the Island have been more permanent
than in the commercial field, and it still retains some
measure of strategic value.

After the Napoleonic Wars, British development of
Malta remained at a low level until the decline of Turkish power and the emergence of the "Eastern Question" brought about a fresh realisation of the Island's strategic value. Thereafter, British spending has remained the main source of Malta's income. This income grew as the labour force in the Royal Naval Dockyard increased (together with employment in other installations, particularly, in recent years on airfields), and as an increasing garrison population spent more money in the Islands on goods and services.

All this was dependent on the strategic value of the Islands. Just how great this value is at present is difficult to say. The fact that Malta is a N.A.T.O. base is claimed by many Maltese as proof of strategic value, but this value has not yet been put to the test. The reason why Malta is a N.A.T.O. base is mainly historical (Malta being a traditional British base), and, although the strategic value of the Islands was eloquently demonstrated during the second World War, a radical change has come over methods of warfare since then, and the value of a small, immobile base in the Mediterranean is now probably very small. To take another view, if, and when, world disarmament takes place, then Malta's raison d'être will disappear completely.

The link with Britain has meant more to Malta than
just the availability of income. It has also brought about a considerable change in the pattern of economic desires of many Maltese, thus raising the Maltese concept of accepted standards. Because income has been available, these desires have been fulfilled, and there is now a large group of urban Maltese enjoying a high standard of living. This standard may be measured materially in terms of such things as motor cars and holidays abroad. Equally important has been the tendency for social and economic policies of governments to follow the British model, as in the case of the Milk Marketing Undertaking (Section D Chapter 2).

As a result of the extremely limited range and generally low quality of Maltese manufactured goods, the sophisticated economic desires have had to be met through imports. This hand to mouth existence has had a catastrophic effect on the Maltese balance of payments.

The increase in consumption of imports which has resulted in the present large deficit in visible trade does not reflect the standards of the entire Maltese community. The group which has prospered most under the British has been the urban group, with the "Sliema type" (p. 104) as the extreme example. In the villages, although the social horizons have been immeasurably widened during recent years by the extension of Rediffusion and the
cinema, the material improvements in life have been small. Many rural families still live in considerable poverty, and the general standard of living in the villages has probably changed only slightly during the past hundred years (1).

There is a great paradox in Maltese society. The wealthier urban group, which is in general not wealth-producing (i.e. it is composed mainly of civil servants, lawyers, etc.) still looks down on the farming community, which is nevertheless potentially the most valuable economic sector of the community because it is capable of developing the agricultural resources which are the only real resources of the Islands.

A re-assessment of the value of specific sectors of the community is now taking place in Malta, mainly as a result of the dangerous state of the economy. As has been pointed out, the present state of the economy is merely a development of a situation which already existed at the time when Malta became a British Colony, although no concern was shown until 1912 when the Report of the Royal Commissioners exposed the fundamental weakness for the first time. So long as money was coming into Malta through the Dockyard and the garrison, nobody worried about broadening the basis of the economy. Only now, with the closing of the Royal Naval Dockyard (1959) and consequent
doubts about the future, has the seriousness of the situation really been brought home to the Maltese.

Impetus to this more analytical approach to the Maltese community has been provided by the spread of socialist ideas in the Islands since the Second World War. This resulted in the return of a Labour Government in 1955 under the energetic leadership of Mr. Mintoff. This government put out a considerable amount of socio-economic propaganda, with the result that any proposed changes in Malta are being judged more and more against a background of welfare economics.

The main result of the social re-assessment has been the recognition by Maltese leaders of the importance of the farming community. This has led to attempts to improve not only the economic position and efficiency of the farmers, but also their social standing.

It is now recognised by many Maltese that the development of agricultural resources is important, and therefore, that the farming community is valuable. Unfortunately, though, a great obstacle to agricultural development is now the attitude of the farming community itself towards accepted standards. For centuries the Maltese farmers have been stigmatised as "peasants" - people who work with their hands in the dirt. In recent years, the broadening of the farmers' horizons through mass communication media
has led to an attempt to escape from this lowly situation. The young men of the villages especially are looking for work outside farming, or are trying to emigrate. Many fathers urge their sons to seek employment which will lift them socially as well as financially.

Thus social pressures from within the farming community are tending to make the rural areas economically dependent on the harbour area, where alternative work is sought with the government (mainly as unskilled labour) or with private firms. This trend is the main internal economic trend of the period under consideration, and it may be described as dangerously unbalanced because it has resulted in more and more people becoming involved in the "Dockyard" economy to the detriment of agriculture and the warping of the national economy as a whole.

The economic trends which have been described underline the overwhelming significance of the factor of location to the geography of Malta. The economic development of the Island since 1800 has ultimately depended on its situation.

The reason why this state of affairs came to dominate the Maltese economy so completely is related to internal geographical factors. Malta suffers from an extreme poverty of natural resources, and the limited rural environment served to emphasise the attractiveness of the externally
supported harbour development.

The most important, and possibly tragic, result of the economic developments is a very large, and still expanding Maltese population. Should no new basis for the Island's economy be found, then there must be serious overpopulation, and because the resource of Malta are so inadequate, little hope of the appearance of a local solution can be held.
APPENDIX B

SHIPPING TONNAGE ENTERED AND CLEARED AT MALTA 1871-1895, BY REGIONS

BLACK SEA

TONNAGE ENTERED FROM
TONNAGE CLEARED TO
ALL TONNAGES IN THOUSANDS

EGYPT

ITALY

SPAIN
APPENDIX D

A statistical abstract relating to the Cotton Industry in Malta, calculated from Census Reports.

(1) Districts

It has not been possible to make a complete historical survey by individual villages. The reason for this is that in some Census Reports occupational statistics are given only for groups of villages. For the purpose of comparison, therefore, the Districts of the 1881 Census Report have been adopted throughout.

The composition of these Districts is as follows:


Cottonera District: - Kospikwa, Sanglea, Kalkara, Vittoriosa.

1st District: - Rabat, Mina, Dingli.

2nd District: - Zebbug, Siggiewi.

3rd District: - Birkirkara, Lija, Attard, Balzan.

4th District: - Naxxar, Mosta, Gharghur, Mellieha.

5th District: - Qormi, Luqa, Tarxien, Pawla.

6th District: - Zurrieq, Safi, Qrendi, Mgabba, Kirkop.

7th District: - Zejtun, Zabbar, Ghaxaq, Gudja, Birzebbuġa, Marsaskala.
(2) Total numbers employed in the cotton industry, by Districts.

<table>
<thead>
<tr>
<th></th>
<th>1851</th>
<th>1861</th>
<th>1871</th>
<th>1881</th>
<th>1891</th>
<th>1901</th>
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</thead>
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<tr>
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<td>123</td>
<td>12</td>
<td>48</td>
<td>21</td>
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<td>186</td>
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<td>8,189</td>
<td>7,272</td>
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*Includes Sliema and St. Julian's (This amounted to only 1 in 1871).

(3) Total numbers employed in cotton spinning, by Districts.

<table>
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<tr>
<th></th>
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<td>324</td>
<td>183</td>
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<td>439</td>
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(4) Total numbers employed in cotton weaving, by Districts.

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<td>116</td>
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<td>1,799</td>
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</table>
## APPENDIX E

Total civil population and working populations, calculated from Census Reports.

(1) **Total Malta.**

<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1842</td>
<td>100,157</td>
<td>34,584</td>
<td>26,644</td>
<td>61,228</td>
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<td>1851</td>
<td>108,833</td>
<td>38,223</td>
<td>24,084</td>
<td>62,307</td>
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<tr>
<td>1861</td>
<td>118,596</td>
<td>40,699</td>
<td>25,340</td>
<td>66,039</td>
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<tr>
<td>1871</td>
<td>124,384</td>
<td>46,116</td>
<td>23,454</td>
<td>69,570</td>
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<tr>
<td>1881</td>
<td>132,129</td>
<td>45,910</td>
<td>20,545</td>
<td>66,455</td>
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<tr>
<td>1891</td>
<td>146,484</td>
<td>50,252</td>
<td>17,647</td>
<td>67,899</td>
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<tr>
<td>1901</td>
<td>164,952</td>
<td>55,695</td>
<td>14,409</td>
<td>70,104</td>
</tr>
<tr>
<td>1911</td>
<td>188,869</td>
<td>55,589</td>
<td>16,773</td>
<td>72,362</td>
</tr>
<tr>
<td>1921</td>
<td>189,697</td>
<td>62,027</td>
<td>16,056</td>
<td>78,083</td>
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<tr>
<td>1931</td>
<td>217,784</td>
<td>71,975</td>
<td>11,966</td>
<td>83,941</td>
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<tr>
<td>1948</td>
<td>278,311</td>
<td>70,275</td>
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<td></td>
</tr>
<tr>
<td>Year</td>
<td>Total</td>
<td>Male</td>
<td>Female</td>
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</tr>
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<td>------</td>
<td>-------</td>
<td>------</td>
<td>--------</td>
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<tr>
<td>1851</td>
<td>24,1'</td>
<td>31,506</td>
<td>22,540</td>
<td>5,722</td>
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<tr>
<td>1861</td>
<td>32,981</td>
<td>22,540</td>
<td>18,506</td>
<td>2,043</td>
</tr>
<tr>
<td>1871</td>
<td>37,655</td>
<td>24,682</td>
<td>22,813</td>
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<tr>
<td>1881</td>
<td>42,782</td>
<td>28,802</td>
<td>18,880</td>
<td>2,043</td>
</tr>
<tr>
<td>1891</td>
<td>47,139</td>
<td>26,810</td>
<td>18,880</td>
<td>2,043</td>
</tr>
<tr>
<td>1901</td>
<td>52,625</td>
<td>27,613</td>
<td>18,880</td>
<td>2,043</td>
</tr>
<tr>
<td>1911</td>
<td>63,586</td>
<td>28,062</td>
<td>18,880</td>
<td>2,043</td>
</tr>
<tr>
<td>1921</td>
<td>67,633</td>
<td>28,062</td>
<td>18,880</td>
<td>2,043</td>
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<tr>
<td>1931</td>
<td>80,318</td>
<td>28,062</td>
<td>18,880</td>
<td>2,043</td>
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## APPENDIX F

Residences of Maltese dockyard workers, March, 1957.

<table>
<thead>
<tr>
<th>Locality</th>
<th>Number</th>
<th>Locality</th>
<th>Number</th>
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<td>Pawla</td>
<td>1261</td>
<td>Ghaxaq</td>
<td>154</td>
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<tr>
<td>Zejtun</td>
<td>995</td>
<td>Siggiewi</td>
<td>148</td>
</tr>
<tr>
<td>Zabbar</td>
<td>961</td>
<td>Gudja</td>
<td>104</td>
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<tr>
<td>Kospikwa</td>
<td>960</td>
<td>Dingli</td>
<td>94</td>
</tr>
<tr>
<td>Hamrun</td>
<td>715</td>
<td>Marsaxlokk</td>
<td>83</td>
</tr>
<tr>
<td>Sliema</td>
<td>573</td>
<td>Marsaskala</td>
<td>83</td>
</tr>
<tr>
<td>Senglea</td>
<td>537</td>
<td>Qrendi</td>
<td>73</td>
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<tr>
<td>Tarxien</td>
<td>467</td>
<td>Naxxar</td>
<td>72</td>
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<tr>
<td>Vittoriosa</td>
<td>461</td>
<td>Mqabba</td>
<td>68</td>
</tr>
<tr>
<td>Valletta</td>
<td>444</td>
<td>Attard</td>
<td>55</td>
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<tr>
<td>Birkirkara</td>
<td>441</td>
<td>Mellieha</td>
<td>50</td>
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<tr>
<td>Qormi</td>
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<td>Kirkop</td>
<td>50</td>
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<td>Rabat</td>
<td>363</td>
<td>Safi</td>
<td>29</td>
</tr>
<tr>
<td>Zurrieq</td>
<td>345</td>
<td>Charghur</td>
<td>28</td>
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<tr>
<td>Marsa</td>
<td>343</td>
<td>St. Paul's Bay</td>
<td>27</td>
</tr>
<tr>
<td>Zebbug</td>
<td>248</td>
<td>Gozo</td>
<td>25</td>
</tr>
<tr>
<td>Msida</td>
<td>240</td>
<td>Sta. Vennera</td>
<td>25</td>
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<tr>
<td>Kalkara</td>
<td>218</td>
<td>Mgarr</td>
<td>24</td>
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<tr>
<td>Birzebbuga</td>
<td>215</td>
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<td>Gzira</td>
<td>214</td>
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<td>Luqa</td>
<td>173</td>
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<td>Floriana</td>
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<tr>
<td>Mosta</td>
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<tr>
<td>St. Julian's</td>
<td>155</td>
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<tr>
<td>Total</td>
<td></td>
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<td>12,572</td>
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</tbody>
</table>

These statistics were drawn up by the writer and B.W. Beeley from records in each department of the Royal Naval Dockyard.
REFERENCE BIBLIOGRAPHY

SECTION A

Chapter 2

(1) For details of purely physical aspects of the Maltese Islands, see also:


Hyde, H.P.T., "Geology of the Maltese Islands", 1955.


Chapter 3


(2) For an account of purely Gozitan features in this context, see Beeley, "Gozo: a Changing Island", in the Gozo Year Book, 1959, pp. 5-8.

SECTION B


(2) Ibid. p.92.


(5) Ibid, p.2. (A despatch from the Governor to the Colonial Office, 21/2/1851).

(7) Ibid, p. 3.


(9) Richardson, W., "Aspects of the demography of Modern Malta", 1960.

(10) Boisgelin, Chev. Louis de, "Ancient and Modern Malta", 1805, p. 49 et seq.

(11) Royal Commission, 1812.

(12) Ibid.

(13) Census, 1851.

(14) Royal Commission, 1839.

(15) Royal Commission, 1812.


(17) Richardson, op. cit.

(18) Ibid.

(19) Royal Commission, 1839.

**SECTION C**

**Chapter 1.** Much of the research for this chapter was done in those files of the Colonial Office which are kept in the Public Records Office. The reference number of the Public Records Office is given where appropriate.

(1) C.O. 158/1. Ball, Memorandum on Malta, 6th March 1801.
(2) C.O. 158/2, letter from Civil Commissioner Cameron to Lord Hobart, 15th Nov. 1801.

(3) Ibid, and argument.

(4) C.O. 158/12, Ball to Winaliam, 11th Aug. 1806.

(5) C.O. 158/14, Public Secretary to Ball, 4th Jan. 1809.

(6) C.O. 158/31/40, Plasket to Wilmot, 19th Nov. 1822.

(7) C.O. 158/50, Hankey to Hay, 11th Jan., 1826.


(10) Royal Commission, 1812, Appendix on trade.

(11) C.O. 158/32.


(18) Woytinsky, op.cit., fig.11, p.52.


(20) Royal Commission, 1912, minutes of evidence 2814-21, 13,866-9.
(21) Clapham, op.cit.
(22) Ibid,
(23) Statistical Journal, 1903.

Chapter 2

(2) See Section B, p.
(3) Census, 1948.
(4) Royal Commission, 1812. Appendix on trade.
(5) See Appendix
(6) See Appendix
(7) See Section C, Chapter 1.
(9) Ibid., pp. 3,4.
(10) Ibid., Appendix A, para. 2, pp.208, 209.
(12) Richardson, op.cit.
(15) Convention of Defensive Alliance, 4th June, 1878.
(16) Royal Commission, 1912.

(17) The Trade of the Maltese Islands, 1918 and 1956 (Maltese Govt. publications).

(18) Statistical Abstract, 1956, Section "L".

SECTION D

Chapter 1

(1) Population statistics have been taken from Census Reports, 1842-1948, and then from Statistical Abstracts. Estimates of population before 1842 are those of Richardson, op.cit. rounded off.

(2) Fig. 5 is reproduced by permission of J.C. Dewdney.

(3) For a more detailed assessment of sources and annual trends, see Price, op.cit., and Richardson, op.cit.

(4) Post 1948 emigration figures from the Emigration Department records via Richardson.

Chapter 2

(1) The Trade of the Maltese Islands, 1930, 1938.

(2) Reports of the Medical and Health Depts.

(3) Terms of reference of an official who made the enquiry and submitted a Report in 1956.


Durham University - H. Bowen-Jones,
"Agriculture in Malta, - A Survey of Land Use, 1955".

(5) Boisgelin, op.cit., vol.1, ch. 6, and Miege, "Histoire de Malte" 1841, ch. 10.

(6) Statistical Abstracts.

(7) Charlton W.A., "An Investigation into the Production of Cows' and Goats' Milk, Malta". Malta 1956.


(9) M.M.U. figures.

(10) Letter in the Times of Malta, passim.


(12) Ibid. p.10.

(13) Ibid. Appendix V, p.76.


(15) Feralta, E.J., "The development of the vine and the wine industry in the Maltese Islands". 1948. (Unpublished TP/3).
Feralta gives a list of references, but quotes verbatim without giving details.

(16) Ibid.

(17) Ibid.
Chapter 3

(1) All statistics in this chapter are taken from the Census Reports for 1842, 1851, 1861, 1871, 1881, 1891, 1901, 1911, 1921, 1931, 1948.

(2) See Section D, Chapter 1.

(3) See Appendix B, and Section C, Chapter 1.

Chapter 4


(2) Census Report, 1861.


(4) Royal Commission, 1912.
(5) Royal Commission 1912, Minutes of evidence 4779-80.


(7) Census Report, 1921. Table XXV, Order V, sub-order 2, p.104.

(8) Census Report, 1851.

(9) A.A. Cachia-Zammit, in conversation. Dr. Cachia-Zammit, a medical practitioner in Zejtun, has a considerable knowledge and understanding of Maltese village life.

(10) Beeley, op.cit.

(11) From figures supplied by the Dept. of Trade and Industry, 1957.

(12) Ditto.

SECTION E.

(1) For a full social and economic account of the Maltese peasant farmer, see Beeley, B.W., op.cit.