

OVERTAXED? : A COMMENT ON THE MALTESE EXPERIENCE

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Successive government economic documents in Malta over the past twenty years consider the role of the local tax structure in terms of its contribution to stimulate personal initiative and encourage production, and to generate sufficient revenue for the State to finance at least the annual current expenditure. Yet, it is becoming common to read that local production is overburdened with taxation and regulations. If this claim is correct it means that the tax policies currently implemented are defeating the Government's own set objectives.

In this paper we comment on the theoretical relationships that exist between the tax structure and the two policy goals indicated and we assess the validity of the proposition that Malta is an overtaxed economy. No reference is made to non-tax factors, which are considered harmful for economic development.

Taxation, Production and Tax Revenue

The tax structure, the supply of effort (production), and tax revenue are interrelated. Tax revenue is simply the product of the tax rate times the tax base. Tax rate changes may be expected to affect aggregate supply; tax rate changes are relative price changes and they affect the choice between work and leisure, the allocation of resources, and real economic activity. As a result, they determine the tax base and, hence, the tax revenue. Changes in the tax structure must be seen as being totally distinct from, and sometimes negatively related to, changes in tax revenue. This line of argument has led to the explicit formulation of the relationship between tax rates and tax revenue in a mathematical function, now commonly referred to as the "Laffer Curve". This function has the general form:

$$R = a + b T - b T^2 + u$$

0 1

where R = Tax Revenue
 T = Tax Rate
 u = Error Term

The Laffer tax rate - tax revenue relationship has several connotations. First, it suggests that there must exist a level and a structure of tax rates that minimize tax revenue. The precise level and structure of tax rates depend on the

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elasticities of factors of production and output with respect to changes in tax rates. Secondly, the relationship implies that at all non-maximum tax levels, there exist two tax rates that will yield the same amount of revenue. Thirdly, the "Laffer Curve" implies that tax rate reductions can lead to either increases or decreases in tax revenue - depending on the location of the economy on the curve. In particular, if the economy is on the upper portion of the curve, a tax rate reduction will lead to a tax revenue increase.

The relationships identified by the Laffer function are essentially of a long-term nature. Decisions related to the State's fiscal programme as a policy tool to induce long-term economic growth are, however, taken by politicians whose aspirations and needs often tend to be short-termed.

Inconsistencies may therefore arise between the objectives of political leaders, whose time horizon spans only until the next election, and private investors who are primarily interested in the after-tax returns on current investment which usually span longer than the life of one Parliament. Politicians, seeking re-election and the cash to provide benefits for voters, may be inclined to take advantage of taxpayers' inability to shift out of taxable income in the short run. If so, they would tend to maximise short-run revenue, positioning themselves on the peak of a "short-run Laffer Curve". The long-run effects of such policies would be a shortfall of capital accumulation from that desired which would yield lower outputs, income, employment and tax revenue for the Government in the future. The short-run proclivities of politicians may push taxpayers to the upper side of the "long-run Laffer Curve".

It is a matter for empirical judgement to locate the economy on the "Laffer Curve" and in the process to estimate the rates of tax which maximise tax revenues for the State in the short and in the long run. It does not follow, of course, that governments should seek to maximise tax revenue by aiming for the peak of the "Laffer Curve" for in the process they would generate disincentive effects. Even if it is held that higher taxation compels people to work harder, it would not follow that government should raise taxation, since such a policy omits from consideration the value that people attach to leisure.

Tax Revenues and Tax Rates in Malta

The trends in the revenue from taxes on income and expenditure, (1) and the change in the index of the tax rate, expressed as the ratio of the aggregate tax revenue to the Gross Domestic Product, may be observed from the data in Table 1. Total tax revenue increased from Lm7 million to Lm113 million between 1960 and 1980 while the index of the tax rate rose from 16.65% to 31.2% respectively.

Table 1

Tax Revenue, Gross Domestic Product, and a General Index of Tax Rates: 1960 - 1980.

Year	(1)	(2)	(3)	(4)	(5)
	Taxes on Income	Taxes on Expenditure	Total Tax Revenue	GDP at Factor Cost	Index of Tax Rate (3)/(4)
	Lm000	Lm000	Lm000	Lm000	%
1960	1426	5799	7225	43399	16.65
1961	1547	6832	8379	44527	18.82
1962	1739	6670	8409	43190	19.47
1963	1462	6760	8228	42620	19.31
1964	1990	7220	9210	43534	21.15
1965	1761	7472	9233	46687	19.78
1966	2242	8463	10705	51708	20.70
1967	2315	9380	11695	55690	21.00
1968	2775	10888	13663	62058	22.02
1969	3405	13329	16734	71787	23.31
1970	4205	14828	18413	82201	22.39
1971	5388	15208	20596	85201	24.17
1972	8687	14933	23620	89646	26.34
1973	14174	17445	31619	100867	31.35
1974	14266	18728	32994	118614	27.82
1975	19869	20002	39871	152944	26.07
1976	22872	22832	45704	189448	24.12
1977	28710	26882	55592	219899	25.28
1978	35906	30116	66022	251260	26.28
1979	51828	36159	87987	293651	29.96
1980	62890	45744	108634	348612	31.16

Source: National Accounts of the Maltese Islands (COS, Malta)
Tables 4 and 1.

The observed differences in tax revenues and in the tax index between 1960 and 1980 are substantial, yet the data in Table 1 do not suggest that Malta is particularly heavily taxed by international standards. Studies on international tax comparisons indicate the existence of a progressive element in the international tax structure - richer countries pay proportionately more tax than the less well-off. An OECD study (2) points out that in 1976 the tax index, as we defined it above, stood at 55% for Scandinavia, 50% for the Netherlands, 44% for France, 43% for Germany, 40% for the United Kingdom, 36% for Italy, 34% for Switzerland and 23% for Japan.

Of course, such indices must be seen only as general, overall indicators of tax burdens in the respective economies and any conclusions drawn from them should be regarded primarily as indicators of general tendencies rather than of exact tax behaviour. Being summary statistics, these tax indices do not distinguish between the varied arrays of taxes and government commitments in the different countries. Thus, for example, the data upon which the above indices are based include social security contributions. These differ between countries, but so do the related benefits that governments undertake to provide under the social welfare schemes.

Moreover, the structure of taxation yields different degrees of tax progression which may be directly related, but need not be, to the level of the overall average rates of tax. For example, Japan has a low average rate of tax, but tax progressivity is high, while Germany has a high average rate of tax but comparatively low tax progressivity. (3) Besides, the extent of direct State intervention in production of goods and services, leading to the appropriation of profits, differs between countries, and over time within an economy. Consequently, public monopoly pricing that yields profits in excess of what may be considered a "normal" rate of return in a particular industry would differ internationally and inter-temporally within a country. Although such profits would not be referred to officially as taxes, yet there is reason to consider them as such. If a monopoly were privately owned, excessive profits (supernormal profits) would fall under government scrutiny and would often be subjected to price control. As no such constraints probably inhibit pricing policies of State monopolies, excessive price charging by State corporations can be taken to represent, in part, a tax on expenditure.

Finally, there is no one value of the index that can be considered as "optimal". Indeed, any one of the tax structures that yielded the indices observed above may be regarded detrimental to economic growth and personal initiative in a particular country. Thus, for instance, the Swedish tax system produces the highest tax index registered in the OECD study; yet it is seen by organizations in Sweden as a disincentive to "venture capital necessary to start small industries". (4) This argument is evidently valid for other economies as well, especially those undergoing significant structural changes in

their patterns of production.

In Malta the tax index was 24% in 1976; it compared favourably with the indices for Europe. Even if we allow for tax progression as per capita GNP rises, it seems that tax payers in Malta did not fare badly either. In an analysis based on the OECD data, Michael Beenstock plotted a linear function correlating the average tax rate and the GNP per head.(5) By extrapolating that function, we obtained a rate of tax of 26% correlated with a GNP per head of \$1600 in 1976.(6) The rate obtained for Malta, 24%, was two points below the estimated average. If we assume that this tax function remained stable, at least for the period 1976 - 1980, then a tax index of 32% would correspond to a GNP per capita of \$3760.(7) The tax ratio in Malta was 31.2%; this was slightly below the international average.

Two conclusions follow immediately from these data. First, a shift occurred in the tax burden in Malta between 1976 and 1980: from two points below the OECD average, the tax ratio for Malta moved closer to the corresponding mean at the higher income per head. Secondly, if this type of displacement is ignored, it may be concluded that, judged from official tax data, the Maltese economy is behaving, taxwise, as expected to by international tax standards. This second conclusion, however, demands qualification. Official tax statistics have to be critically examined for, in a sense, they are misleading. Tax data show the revenue collected in a given year but not the amount of tax due for that year. There is reason to suspect that tax statistics in Malta tend to understate the true amount of tax revenue collected, besides failing to identify the amount of tax due. Furthermore, if the increases in tax rates encourage activity in the informal economy, the estimate of the GDP becomes distorted more than it is normally expected to be. The greater the volume of transactions taking place "underground", the bigger the error in the estimated GDP; GDP would be undervalued. The true tax burden on that part of the population which indulges in underground economic activity would consequently be lower than it should in fact be, and the tax burden, that is Tax paid (not due) / Estimated GDP, based on official data tends to be inflated.

This second issue is dynamic in nature and complex to resolve. To this writer's knowledge, no research has been carried out to date on the "underground economy" in Malta. Therefore, for the rest of this paper comments are limited to problems of interpretation and omission related to the tax statistics. This entire matter will need to be reassessed when estimates on the value of activity taking place in the informal sector in Malta become available.

Official Tax Data in Malta: Omissions and Lags

Personal Income Tax statistics refer to the revenue received by the Tax authorities in a year. Before the introduction of the

PAYE system, these payments could be backdated by several years. Indeed, the attempts to estimate an Income Tax function for the economy suggest that there exists a closer relationship between the tax revenue in a given year and economic activity three years before than tax revenue and economic activity in any one year. This result is illustrated by equation (1) which supports the results obtained by other writers.(8)

$$T(P) = -3.78 + 0.1142 Y(P) + 0.0755 DY(P)$$

$$\begin{matrix} & & t-3 & & t-3 \\ & & (13.13) & & (14.52) \end{matrix}$$

$$R^2 = 0.991 \quad F = 1067.34 \quad D.W. = 1.500 \quad n = 20$$

() t Statistics

where T (P) = Income Tax revenue, in current Prices

Y (P) = Personal Income, in current Prices

D = 0 (1957 - 1972)
1 (1973 - 1976)

Equation (1) accounts for the introduction of the PAYE system in 1973; the marginal rate of tax rises by 7% following the switch in the method of tax collection compared to what it was under the former system. The PAYE tax collection must have contributed towards the elimination of the observed time gap between tax revenue and economic activity, but even by 1979 about Lm15 million were still being claimed by the Inland Revenue Department despite the fact that tax arrears were being called in at the rate of Lm800,000 per month.(9) For these reasons a redistribution of personal income tax receipts would be necessary before the "correct" tax burden for any one year could be established. Such a redistribution, however, remains conjectural; the suspension of the publication of detailed reports by the Inland Revenue Department for the years post-1967 renders an actual redistribution - one which conforms to the real spread of taxes paid - unfeasible.

In addition, there also appear to exist wide divergencies between the annual imputed values for company tax and the actual tax paid (Table 2). It is observed from Table 2 that effected company tax payments differ markedly from the imputed tax due especially during the period 1976 - 1979; these differences are presently an issue of controversy between the local Tax Authorities and the business sector.(10) It seems that official company tax statistics understate the tax due for any one year.

Table 2

Corporate Taxes Paid and Imputed Corporate Taxes

Year	(1)	1970 - 1980	Lm000
	Corporate Taxes	(2) Imputed Corporate Taxes	(3) Difference (2) - (1)
1970	1934	3272	1338
1971	2041	2829	888
1972	2425	3316	881
1973	2680	3825	1145
1974	2273	5279	3006
1975	3064	9007	5943
1976	4089	11729	7640
1977	4972	13817	8845
1978	7142	14701	7559
1979	10705	16091	5386
1980	10260	18477	8217

Source: Column (1): National Accounts of the Maltese Islands, Table 3.

Column (2): Estimated as 0.325 (Corporate Profits Net of Depreciation)

Furthermore, the data on the Taxes on Expenditure also underdeclare the revenue which government raises from this source. They exclude the levies which government introduced on a wide variety of commodities as part of a scheme, the Price Stabilisation Scheme, set up in 1979 with the aim of stabilising over time the prices of certain basic commodities, such as bread, meat and sugar. Also excluded is the revenue from taxes on petroleum products.

Information on the financial state of the Price Stabilisation Fund is very scanty. It is limited to statements by government ministers on the amount of subsidies allocated to particular products during a fiscal year but no reference has, to date, been made to the total annual yield of this levy on commodities nor to the contribution for the Fund by the individual items upon which the "surcharge" is raised. The proceeds from taxes and monopoly profits on petrochemical goods appear as net gain for Enemalta, the State Corporation authorised to import and distribute petroleum products in Malta. In 1980, Government spent Lm2 million in subsidies on various commodities under the Price Stabilisation Scheme: it was, however, claimed by Government that the Fund had a further Lm6 million in reserve.(11) These funds must have accrued during 1979 and 1980; they represent a yearly average of Lm4 million in levies on commodities.

The profits of Enemalta from the sale of petroleum products were Lm1.5m, Lm1.9m, and Lm9m respectively during financial years 1977 - 78, 1978 - 1979, and 1979 - 1980. The Corporation's profit for 1979 could be tentatively set at Lm3.67m.(12) Of course, our prime interest is not in the profits of Enemalta, but on the revenue transferred to Government, representing the proceeds from taxes on the sale of petroleum products and the revenue which accrues as a direct result of Enemalta's monopoly on the sale of such products. No details on the revenues arising from the tax cum monopoly profit are available; we propose, therefore, to consider the total profit on petroleum goods as a levy.

The proposed procedure will evidently inflate the revenue that arises from petroleum, but not necessarily the total tax revenue; the additional income can be taken to compensate for another unidentified amount of revenue raised as a levy on savings. This levy arises as a result of the implementation of the joint policies of controls on the export of foreign currency under the Exchange Controls Act and the relatively low interest rates paid by the Commercial Banks in Malta. Before the concession was withdrawn in November 1982, individuals could send abroad up to Lm500 annually; any excess of savings would presumably be deposited with the local banks which up to 1981 paid a maximum 5% interest on time deposits; presently they pay 6%. Banks, in turn, deposited their surplus cash with the Central Bank which invested the funds abroad at higher rates of return than those paid locally to depositors. The levy on savings is equal to the difference between two values of disposable income: that which would have accrued had a Maltese invested abroad the funds he or she desired, and the disposable income that arise as a direct result of the implementation of policies on exchange control and a ceiling on local interest rates.(13)

Aggregate tax revenue, which includes the proceeds from the Stabilisation Fund and petroleum products, would now amount to Lm95.657m in 1979 and Lm117.384m in 1980; the index of the tax rate becomes 32.58% and 33.7% respectively for those two years. The inclusion of these taxes on consumption has the effect of raising the average rate of tax for Malta from two points below the expected tax index in 1976 to 1.7 points above in 1980, when due allowance is made for tax progression. It now follows that taxation is not behaving as it is expected if we simply consider the amount of tax funds collected through time. One thing is certain; the sources of tax finance in Malta are getting more diversified while detailed information on the respective yields is not matching the spread. Such statistical data are essential for a critical evaluation of the tax system in terms of the public policy objectives it aims to achieve. And only Government can provide them.(14)

Is Malta Overtaxed?

Does the preceding discussion suggest that Malta is an overtaxed economy? The answer depends on how the term "overtaxation" is

defined. If "overtaxation" is defined relative to the average rate of tax correlated to GNP per capita, as estimated from a function based on intercountry data on taxes and output per head, then it can be maintained that in 1980 economic activity in Malta was overtaxed whereas in 1976 it was not. In this instance, the objective of rendering of the tax structure a stimulus to personal initiative in the formal economy is not presently being achieved. It follows that reconsideration of this policy tool becomes imperative.

If "overtaxation" is defined in relation to that rate of tax which maximises revenue for the State, estimated at the peak of the "Laffer Curve" then it can be held that the economy has not yet reached the maximum it can bear, and consequently, it is not overtaxed. Table 1 above suggests that revenue from taxation kept on increasing in line with the rise in the tax index. With the exception of the short period between 1970 and 1976, (when revenue kept rising while the tax ratio increased from 22.39% (1970) to a maximum 31.35% (1973) and then fell again to 24.12 (1976), after which the index kept on rising) it is seen that the tax rate index and tax revenue are positively related and upward moving. In terms of the "Laffer Curve", this means that the economy is still on the lower segment; it follows that a rise in the tax rates would yield further additional revenues. However, it is not yet possible to estimate the potential taxable capacity of the Maltese economy for two reasons: first, the estimate of a quadratic function yields a minimum rate as expected from the data, and not a maximum rate as specified by the Laffer Curve; secondly, there has occurred a steady erosion in the real disposable income of most employees over the seventies with the result that activity in the underground economy - through a second job undeclared for tax purposes, for example - is not only encouraged but increasingly becoming unavoidable especially for the lowest income groups.

A quadratic equation fitted to the data in Table 1 above, spanning the period 1960 to 1980, gives the following result:

$$REV = 24.53 - 4.869 T + 0.209 T^2$$

$$(0.556) \quad (1.875)^*$$

$$R^2 = 0.6414 \quad F = 17.0 \quad D.W. = 0.4587 \quad (15) \quad n = 21$$

* significant at the 95% C.L.

Equation (2) gives us a minimum rate of tax, which is not of interest in the present analysis; revenue keeps rising as the tax rate increases.

It should not be inferred that because the economy seems to be situated on the lower segment of the "Laffer Curve", taxation may be pushed up indiscriminately. The share of total domestic resources channelled to the State rose from 24% in 1976 to an estimated 33.7% in 1980, an increase of ten percentage points

within four years. At the same time, the net effect of the changes introduced in the personal income tax structure, the increase in the rates of welfare payment allowances per child - for the first three, and the upward movements of the general retail price level - influenced to a significant extent by government's policy on public pricing and taxing of consumer goods, including basic food items - have resulted in a fall in the real disposable income for most income groups, even those in the low income categories. Illustrations of this erosion in the purchasing power for wage-earners in income brackets that cannot be considered in the "well-off" region are presented in Table 3.

Table 3

(a)

Disposable Income, in Money Terms (Lm)

Single Person

	1976	1977	1978	1979	1980
Class I	708	784	902	984	1163
Class II	1158	1219	1331	1384	1619
Class III	1563	1624	1736	1789	2059

Married Couple with 3 children

Class I	838.9	1012.1	1176.1	1277.7	1543.8
Class II	1415.3	1862.4	1710.1	1795.7	2022.3
Class III	1881.1	1997.8	2138.0	2215.5	2467.8

(b)

Disposable Income in Real Terms (Lm)

Class I	647	651	716	729	744
Class II	1058	1013	1056	1025	1036
Class III	1429	1349	1377	1325	1317

Married Couple with 3 children

Class I	767	841	933	946	988
Class II	1294	1298	1357	1330	1294
Class III	1719	1660	1696	1641	1579

Retail Price Index: (1974 = 100)

	109.41	120.36	126.04	135.04	156.33
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NOTE: Class I : Minimum Wage Government Employee
 Class II : Class I + Lm600
 Class III : Class I + Lm1200

Disposable Income (MC) = Wages + Bonus + (Children's Allowances) -
 (National Insurance Contributions + Income Tax)

Disposable Income (Single Person) =
 Wages + Bonus - (National Insurance Contributions
 + Income Tax)

Any income in excess of that of the Class I employee for a person who is not married, and any income higher than that for a Class II employee married with 3 children, registers a fall in the real disposable income in 1980 compared to 1976. Moreover, it is observed that even for the Class I employee, the level of the real purchasing power has practically flattened out after 1978.

These impressions emerge directly from the analysis of official data. One must note, however, that the Interim Index of Retail Prices was structured in the early seventies. Since then, prices the world over have been rising, on average, sharp and fast; it may be hypothesized that such price movements could have induced shifts in the composition of local demand between "vital" and "non-vital" consumer items and possibly even between items pertaining to each of these categories. Unfortunately, any shifts that might have occurred over the seventies cannot be identified for all the Maltese households; the statistical base on which information has been collected refers to low income brackets, while the survey population upon which the Retail Price Index for the 1980's will be constructed is restricted to employees whose income did not exceed Lm2000 in 1980. The consumption patterns of the self-employed, pensioners and all wage and salary earners whose income exceeded Lm2000 in 1980 are not assessed in the Budgetary Survey. The Price Index eventually constructed will effectively reveal the effects on consumption of price changes on employees in the "low" income brackets only.(16)

It would have been useful if information on the changes in the real disposable income of workers in the higher income brackets - those pertaining to the higher supervisory and top managerial positions - were also known. While all should be enticed to work more industriously and intelligently,(17) the initiative of some groups happens to be more critical than that of others in the sense that weak co-ordination, or lack of vision in planning, would lead to a waste of efforts and resources. It is these unifying elements in production and sales that should not be ignored by public policy makers. Unfortunately, information on the consumption patterns of the workers undertaking such responsibilities remains non-existent in Malta.

The aspirations of workers and investors simply cannot be relegated to a secondary position because it is through their joint efforts that the socio-economic objectives laid down in Government's economic programmes can be achieved. It is often forgotten in practice by public policy makers that the micro-foundations of macro-economic goals can only be ignored at a heavy future cost in output, employment, social stability and, as a consequence, human welfare. In the absence of studies on the attitudes of the Maltese towards tax-financed government programmes, we may assess, in a very general manner, the net effects of the fiscal and general government policies over the past years through the changes observed in the investment/total domestic output ratio.(18) The share of resources allocated for capital accumulation out of the gross domestic product fell from about 19% in the four years preceding 1977, to 15% in 1980 (Table

4). This rather sharp fall occurred over the same time period which registered a rapid rise in taxation, both explicit or disguised under a different name such as the Price Stabilization Fund. The 15% investment/output coefficient observed for 1980 falls grossly short of the 25% - 30% considered by government as a necessary condition for the attainment of the economic targets set in the present five-year development plan.

Table 4

Investment, Gross Domestic Product at Constant 1973 Prices
(Lm million)

Year	Gross Domestic Product	Investment	<u>Investment</u> GDP	%
1973	115.8	22.3	19.3	
1974	127.3	24.2	19.0	
1975	152.2	27.4	18.0	
1976	178.1	34.1	19.2	
1977	199.8	36.4	18.2	
1978	222.1	35.2	15.8	
1979	245.4	39.2	16.0	
1980	262.7	39.5	15.0	

Source: National Accounts of the Maltese Islands (COS), Table B.

It may be tentatively suggested that the Maltese economy may be positioning itself on a point on the positive slope of a short run Laffer Curve, which point, however, exceeds the peak of the long run Laffer Curve for Malta. A critical appraisal of government programmes on taxes and welfare, investment, state involvement in directly productive activities, and positive personal participation at all levels of decision making in firms and in society, is more than timely; it is urgently needed if the goal of increasing personal commitment in the economy is to be eventually attained.

In summary, the yield from taxation in Malta has risen significantly since 1976. It is estimated that, when allowance is made for tax progressivity, the average rate of general taxation shifted from 2 percentage points below to 2 points above the statistically expected level. Using the "tax - index - GNP per capita" relationship as a yardstick, it can be held that in 1980 the Maltese economy was overtaxed.

The "Laffer Curve" approach, however, appears to be of little help for positive policy formation in Malta for the time being. But judging from official tax data it may be suggested that the Maltese economy lies on the lower segment of a "Laffer Curve"; Malta may be heavily taxed but not overtaxed. However the scope

for "beneficial" tax increases, ones that stimulate output and tax revenue by generating effort in the "formal" economy, seems to be limited. It was demonstrated that there has occurred a steady erosion of real disposable income for income groups in the Lm2000 bracket, and even in the case of minimum wage earners, whether single or married, the gain in real terms of fiscal changes since 1978 was practically negligible. The scope for activity in the "informal" economy is, to this extent, correspondingly greater now than it was five years ago.

Furthermore, it was observed that the share of investment in the real domestic product fell to a low 15% in 1980; this coefficient represents only one half of the maximum 30% considered necessary by government to achieve the targets for output and employment set in the 1981 - 1985 development programme. It was, therefore suggested that the economy may be close to the peak of a "short-run Laffer Curve" which is higher than the peak of a "long-run Laffer Curve" for Malta.

Detailed published information on the yields in taxes from all sources is necessary for a proper analysis of the fiscal system in Malta. The failure to publish such data is rendering impossible critical research on public policy issues related to general taxation.

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Notes

- (1) Taxes on Income include Personal Income Tax, Death and Donation Duties, Company Tax and Social Security Contributions. Taxes on Expenditure include Customs and Excise Duties, and Licence fees.
- (2) Sawyer (1976).
- (3) Tachibanaki (1981).
- (4) "The Challenge of Innovation in Industry", EFTA Bulletin, (EFTA, Geneva), May 1981.
- (5) Beenstock (1979), p. 4.
- (6) Gross National Income per capita in Malta was Lm680.62 in 1976. The exchange rate of the Maltese lira in terms of U.S. dollar was 2.344 at the end of 1976.
- (7) Income per head was Lm1333 in 1980. The Lm was worth \$2.8237 at the end of 1980.
- (8) Metwally (1977), pp. 113 - 116.
- (9) Report of the Department of Inland Revenue, Malta, April - December, 1979.
- (10) Delia (1981), p. 62.
- (11) This statistic was given by the Prime Minister in Parliament during the debate on the Government's Budget for 1981. The Fund was expected to finance subsidies worth Lm2.45 million in 1981; this was reported in Parliament by the Minister of Finance when he presented the Budget for 1982.
- (12) Lm3.67m = 0.75 (Lm1.9m) + 0.25 (Lm9m) representing nine months profit for 1978 - 79, and three months profit for financial year 1979 - 80. The profit for the first 9 months of 1980 amounts to Lm6.75m.
- (13) The loss of revenue accruing to the investor, pre-tax, amounts to $(r_f - r_d)$ where
 - r_f = interest rate paid abroad, in Maltese lira.
 - r_d = interest rate in Malta.The net difference, however, equals $(1-t)r_f - (1-t)r_d$, post-tax income in both cases.
- (14) One writer has recently observed that the termination of detailed reports by Government Departments could be due

"partly to lack of modern data-processing equipment and partly to the desire to curtail expenditure on research, statistics and publication. In a small developing country these may be unavoidable limitations. There may, however, be a desire to discourage discussion of some policy issues involved". Kaim Caudle (1981) p. 17 (underlying added).

- (15) The estimated function overestimates the annual tax revenue for the period 1962 - 75; it underestimates it for the period 1976 - 80.
- (16) Delia (1981), pp. 27 - 29.
- (17) Hard work is necessary but not sufficient for productivity increases; better organized work is essential.
- (18) Delia (1982).