An Application of

THE PRINCIPLE OF UTILITY

in the sphere of

PUBLIC EXPENDITURE.

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CHAPTER ONE.

INTRODUCTION.

The value the principle of utility has been discussed not less by Economists than by Philosophers, and although it has been subjected to much severe criticism it is noticeable that almost all recent economists have made use of the conceptions of total and marginal utility in certain branches of the science.

"Economic Science", says Pantaleoni (1), consists of laws of wealth deduced from the hypothesis that men are actuated exclusively by the desire to realize the fullest possible satisfaction of their wants with the least possible sacrifice". "Every economic generalization," he goes on to say, "is the conclusion of a syllogism one of whose premisses is the hedonic hypothesis". This view is somewhat one sided, over-emphasising, as it does, the abstract, a priori side of the subject, and ignoring the importance of the empirical elements in the science. Nicholson, on the other hand, remarks regarding Utilitarianism: "No system of political philosophy ever propounded lends itself to casuistry so readily. All the virtues can be caught in its net so wide is its sweep, and every one of them can escape again so large are its meshes". (2)

(1). Pure Economics, Ch. 1.

(2). Principles of Political Economy, p. 186.

Accepting Nicholson's caution,and noting also,what Sidgwick admits,(3) that psychology does not furnish an exact quantitative and comparative study of the relative aggregate strengths of the various human desires and motives,we must never the less consider the fact that Political Economy is,"on its more important side, a part of the study of man"(4). Consequently the inexact and subjective idea of utility must,even where there is an appearance of exact quantitative measurement,play an important part. This is notably the case in the consideration of ideals in Consumption and its counter-part Public Expenditure. Conceptions of total and marginal utility are,in these parts of the subject,useful in expressing more exactly ideas which otherwise might be vague and even misleading.

The aim of this essay is to apply the principle of utility to the general relation between public expenditure and taxation. In an era of increasingly collectivist tendencies,inevitably accompanied by increasing taxation,some ideal ,however subjective and difficult of attainment,or even of practical application, is eminently desirable. In chapter two attention will be directed to the startling increase in taxation and expenditure in various states in modern times; chapter three will contain a discussion of the principle itself; chapter five will deal with the utilitarian ideal as to increasing budgets; in chapter four attention will be called to some indirect effects of these increases; and chapter six will be concerned with the relation between the ideal condition and that which the forces actually in operation are tending to bring about.

(3). Ethics p. 147. (4) Marshall Principles BK.1 Ch.1.

CHAPTER II.

MODERN INCREASES IN PUBLIC EXPENDITURE AND TAXATION.

1. In modern times a remarkable expansion in government expenditure and taxation has occurred in practically every civilized state. It is our purpose,in the first part of this chapter,to trace the increase in expenditures,and,in the second part,to discuss how far such increases necessitate increased taxation.

2. In Great Britain in the fiscal year 1853-4 the expenditure of the central government was £55,769,000 and the local expenditures £15,819,000 making a total of approximately £71,500,000. In the next ~~year~~ six years the expenditures increased 22½% so that in 1859-60 the total was approximately £87,697,000. In the next twenty years it increased a further 60%,being, in 1879-80, £139,962,000 (1). The 1923-4 Imperial expenditure was approximately £812,500,000 and the local about £176,500,000 making a total of £989,000,000,more than 706% of the 1879-80 total (2).

In France a similar movement has been taking place. In 1891 the actual expenditure by government was £3,281,000,000 francs.The expenditure increased intermittently until 1911 when it was £4,386,000,000 francs (1). Recently the increase has been much more rapid and in 1922 it was approximately seven times as great as it had been in 1891 (2).

In the United States too, the increase has been apparent.

(1). Bastable ,Public Finance.

(2) Statesman's Year Book.

Between 1846 and 1853 the average annual federal expenditure was slightly more than forty-nine millin dollars; in 1907 (4) it was nearly seven hundred and sixty two and one half millions and in 1923-4 it was nearly more than two thousand eight hundred and thirty-five millions of dollars. (5).

As might be expected this increase the per capita expenditure also shows an increase from $2.23 in 1845-53 to $ 8.91 in 1913-14 and to $ 26.82 in 1923-4. The increase in expenditure has been accompanied by increased taxation. In 1913-4 the per capita taxation was $ 6.50; by 1923-4 it had increased to $ 30.

In Canada, also, the increase has been noticeable. In 1881 the Dominion expenditure was slightly more than twenty-five and a half million dollars; in 1922 it was more than three hundred and forty-seven millions - that is, fourteen times as much as in 1881. After allowance has been made for the provincial subsidies, the Provincial and Dominion expenditures together were, in 1922, nearly fifteen times as great as in 1881 (6). Although statistics of municipal expenditures are not available for all provinces, it is safe to assume that, in the aggregate, they have increased more rapidly than the Dominion or even the Provincial expenditures.

(4) Report of Bureau of Census published in Congressional record May 30, 1908.

(5) Statesman's Year BOOk p.XVIII and p.[illegible].

(6). cf. App. Table XX II.

3. This remarkable expansion has been the result of a number of causes acting simultaneously. A study of the appended tables shows that, in Canada, during the period under discussion, (a) population was increasing, and (b) general prices were rising - i.e. the general purchasing of money was falling. Has the apparent increase, then, been real? Is government now really expending more purchasing power per person than formerly?

On consulting Graph II. we note that the per capita Dominion expenditure in Currency dollars has been rapidly rising: in 1881 it was $ 4.90; in 1894, $7.54; in 1913, $14.89; and in 1921, $41.09, or more than eight times as great as in 1881.

It remains to make allowance for changes in the purchasing power of the dollar during the period (7). If we reduce the currency-dollar per capita expenditures to terms of the purchasing power of the dollar during the ten years 1890-1899, we shall be able to see whether there has been an actual increase in the per capita expenditure of purchasing power. The per capita expenditure in terms of 1890-1899 dollars in 1894 was $7.71; in 1913, $10.98; and in 1921, $16.70. In short the per capita expenditure of purchasing power has increased 50% since 1913 and has more than doubled since 1894.

A comparison between expenditures at different times or in different countries on the basis of population and price

(7). See Graph III.

levels alone is in many respects unsatisfactory. If reliable statistics of national net production could be secured the ~~xx~~ comparison of the rates of increase in expenditure and production would doubtless be very valuable. It is at least possible that the ratio of national expenditure to national net production has increased but slightly in the period we are considering. The per capita expenditure, however, has increased ~~at~~ almost as ~~high a rate~~ rapidly as the gross national wealth production (8).

It would seem then that the growth of population and the general rise in prices, in Canada at least and presumably in the other countries which have been noticed, cannot entirely explain the increase in public expenditure. Part of the increase may be explained by the fact that some industries have been taken over by the state and increased both revenue and expenditure, i.e. there may have been an increase in economic expenditure. We shall see later that this cause is, so far as Canada is concerned, by no means the most important. Additional causes must then be sought.

Without doubt one is to be found in the increased cost of war and preparation for war. A large part of the additional expenses caused by the war in 1914-18 were met by borrowing.

(8) cf. Bastable, Public Finance, Bk. I, Ch. VIII, #3. and Graph IV.

The resulting increase in the National Debt has led to a great increase in the annual expenditure in payment of interest upon it. But as we have shown the extension of public expenditures had already made considerable advance before 1914.

Another cause is to be found in an extension of the sphere of governmental action. The decline of popular belief in laissez-faire, the growing interdependence of men, the increasing complexity of human relationships, (9) and the impatient enthusiasm of moral and social reformers for immediate benefits combined with a disregard for important indirect effects, have led to an increased use of that tempting but too often disappointing short-cut: governmental regulation. "The growing budgets of all modern societies," says Bastable (10), "have the tendency towards enlarging the sphere of the state as their ultimate cause, and it is important to see that persistence in this policy is certain to lead to embarrassments in financial administration." The large and increasing staff of officials required in inspection, supervision and general administration leads to a large and increasing wages bill. "The immense increase in civil service estimates, denounced in its totals, is ..... the inevitable result of the demand, by the public, for more government, more administration, more inspection, more regulation." (11)

(9). cf. Dicey, Law and Opinion in England, Introduction.

(10). Public Finance p.56.

(11). Goschen, Essays and Addresses on Economic Subjects, Introduction to "Laissez-faire".

Leroy-Beaulieu (12) gives as another cause the growth of Democracy. But as Bastable (13) and Dicey (14) point out, Democracy does not necessarily ,in all cases, lead to and extension in the functions of government. On the other hand democratic institutions have allowed large classes of the less well-to-do to give effect to their opinions through legislation, and in many cases the desire for equalization of advantages aided by increased scientific knowledge has undoubtedly led to an extension of the sphere of the state and an increase in expenditure.

We shall proceed to discuss how far this increase in expenditures has necessitated or been accompanied by an increase in taxation.

4. Government expenditures have been divided into four classes(15): (a) Expenditure without any direct or indirect return in the form of increased public revenue e.g. expenditure on war or preparation for war; (b) expenditure not directly productive of increased revenue,but indirectly productive of a future increase in revenue, e.g. expenditure on elementary education; (c) expenditure which is partly repaid by a direct increase in revenue,e.g. expenditures on secondary education where fees are charged;(d) expenditure which pays for itself in direct increase in revenue or yields a net in-

(12). Science des Finances, Tome 2,pp. 169 sqq.

(13). Public Finance, Bk. 1, Ch. 8.

(14). op.cit. ,Lecture 3.

(15). Nicholson,Principles, Vol. III. P.374.

come,e.g. expenditure on the Post-office system. If we combine Nicholson's first three classes we shall,obtain a classification suitable for our immediate purpose: (1) expenditures which do not yield directly, in the form of increased revenue to government,amounts corresponding to the expenditures; and (2) those which do produce annually,in the form of increased revenue,amounts equal to or greater than the corresponding expenditures. The former may be termed non-economic, the latter economic, expenditures.(16).

5. In any but a distinctly socialistic state economic expitures are much smaller and of less importance than non-economic expenditures.(17).In Canada the most important item of the latter class in the finances of the Dominion Government is the Post Office account.Although in its early stages the Post Office showed an annual deficit,since 1910 a surplus has been obtained in every year but one,and in 1921 the surpus was $ 1,669,857.(18)

In the summarized receipts and expenditures of the provinces there are no important separately classified economic expenditures.

In municipal finance this class is somewhat more important.In Canadian cities for the year 1920 the expenditure on Public Service Enterprises was slightly more than twenty-six

(16). Bastable, op.cit. Bk.1. Ch.8 ; Adam Smith,Wealth of Nations, Bk. 2,Ch.3.

(17). Bastable Bk. 2. CH. VIII, # 2.

million dollars, while the total expenditure was approximately two hundred and ten million dollars; the gross revenue derived from municipally owned public services in the same year was approximately twenty-eight and a half millions, while the total receipts were two hundred and ten and a half million dollars. Part of the expenditures included in the twenty-six millions doubtless belong in group (c) of Nicholson's classification, so that, even in municipal public finance, economic expenditure is, in Canada at least, comparatively unimportant.

Moreover, even when government does undertake a profit-making enterprise, there is a tendency to abandon the economic or profit-making method of management, and to furnish the commodity in question at or below cost.(16). On the other hand, government monopolies may be used as a method of indirect taxation, e.g. the tobacco industry in France or the liquor trade in Manitoba. In these cases the revenue is really the result of taxation and the expenditure involved may be regarded as being, for the most part, cost of collection.

Increases in economic expenditures do not necessitate increases in taxation, but they are not, for this reason, always to be considered desirable. In most cases private enterprise can be depended on to provide the commodity or service more economically, and with greater net utility to the community.

6. Non-economic expenditure is, and for some time is likely to be, the larger and more important class - at least so far as Canada is concerned. Any increase in this form of expense re-

(16). Plehn, Introduction to Public Finance, p.119.

quires an increase, though not necessarily an equal one, in revenue from other sources. By far the most important souces of increase in public revenue in modern times are borrowing and taxation (19), and increased borrowing means, in the long run, increased taxation to pay the interest and, eventually, the principal. In France, during the years 1911-13, nearly 80% of the net revenue of the central government was derived from taxation and borrowing; in Great Britain, 93%; in Canada 96%; while in the United States during the same period nearly 96% of the net Federal Revenue was derived from taxation alone (20). It follows that every increase in non-economic expenditure must necessarily be met by an immediate or future increase in the burden of taxation. Increases in the functions of government and increases in taxation are not two separate and independent phenomena. Rather, each presupposes and is the condition of the other. They are two sides of one and the same movement.

Let us test our conclusions by an appeal to Canadian conditions. The Dominion expenditure in 1921 was nearly fourteen times what it had been in 1881. In 1881 the amount raised by the Dominion in taxes was $23,942,139; in 1921 it had increased to $ 369,010,605 (21) - more than fifteen times what it had been in 1881. Between 1881 and 1921 the per capita expenditure in terms of 1890-99 dollars increased from $7.71 to $16.70, i.e. it was 2.16 times as great in 1921 as it had been in 1881.

(19). Bastable, op. cit. Bk. II. Ch. V, #2.

(20). Statesman's Year Book.

(21). Canada Year Book 1922-3.

The per capita expenditure in terms of 1890-99 dollars increased from $ $.79 in 1894 to $12.64 in 1913 and $ 17.06 in 1921, i.e. in 1921 it was 2.94 times as great as in 1894.

Canadian facts then support our conclusion that an increasingly large proportion of expenditure has been met by increases in taxation.

7. It is this great increase in expenditure and taxation which calls for an examination of the desirability of such movements and their probable limits.

TABLES APPENDED TO CHAPTER TWO.

TABLE I.

Net Revenue from Taxation and Other Sources (average 1911-13)

	Revenue from Taxation	Other Sources.
Canada	$ 126,000,000	9,000,000
U.S.A.	672,000,000	29,000,000
Gt. Britain	767,000,000	51,000,000
France	660,000,000	173,000,000

From figures quoted in "Inter-Ally Debts" by Bankers Trust Co. p. 322.

TABLE II.

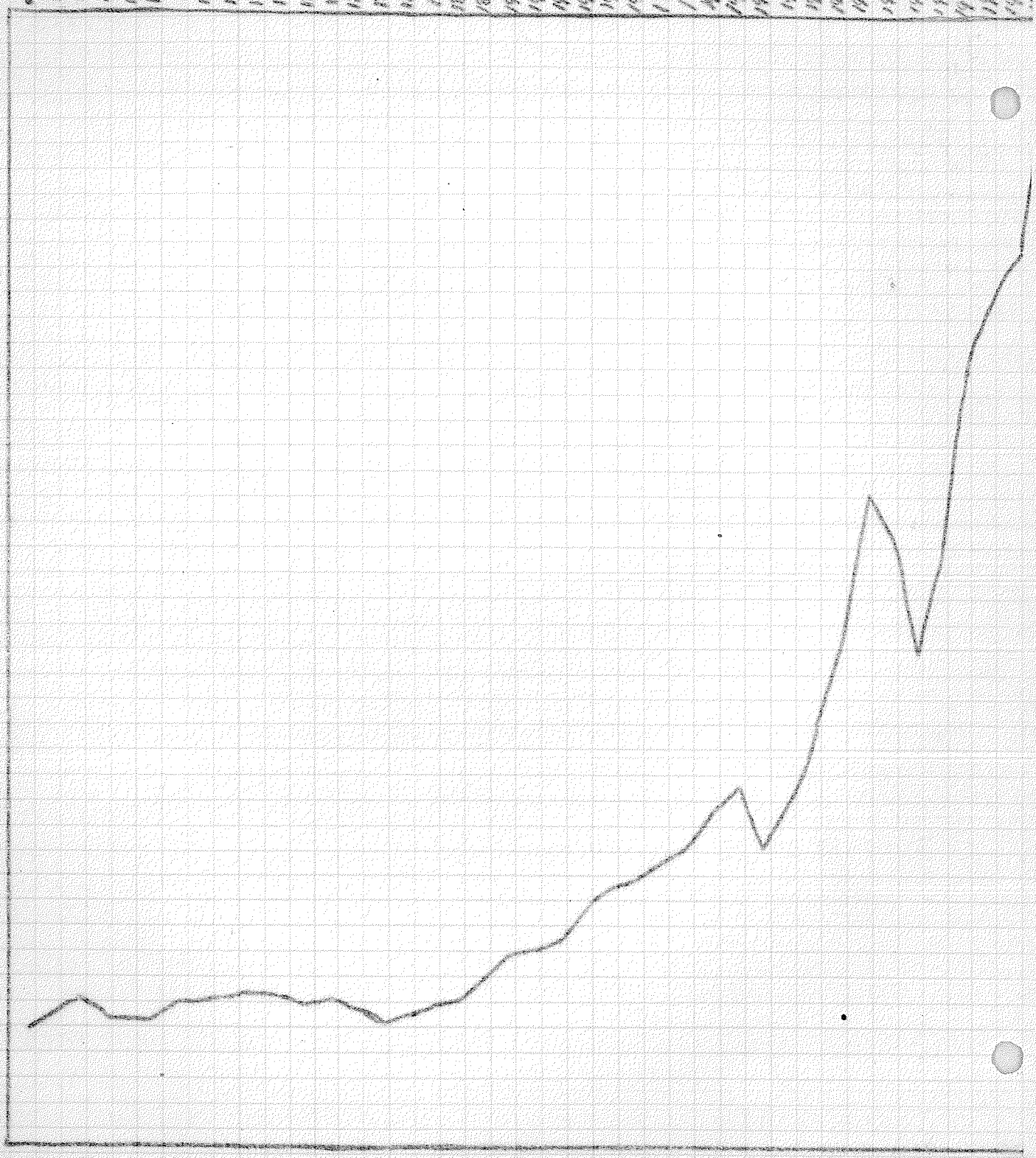
	1881	1911	1921
Canadian Expenditures.	25,502,554	87,774,198	361,118,145
Total Dominion Exp.	58,455,518	4,250,607	11,490,860
	22,047,036	83,522,591	349,627,285
Less Prov. Subsidies			
	8,119,701	38,144,511	102,569,515
Plus Prov. Exp.	30,166,737	121,667,102	452,196,800

TABLE III.

Dominion Taxation.

	1881	1911	1913	1921
Ordinary	$ 23,942,139	89,835,232	135,002,358	200,625,278
War" Taxation				168,385,327
				369,010,605

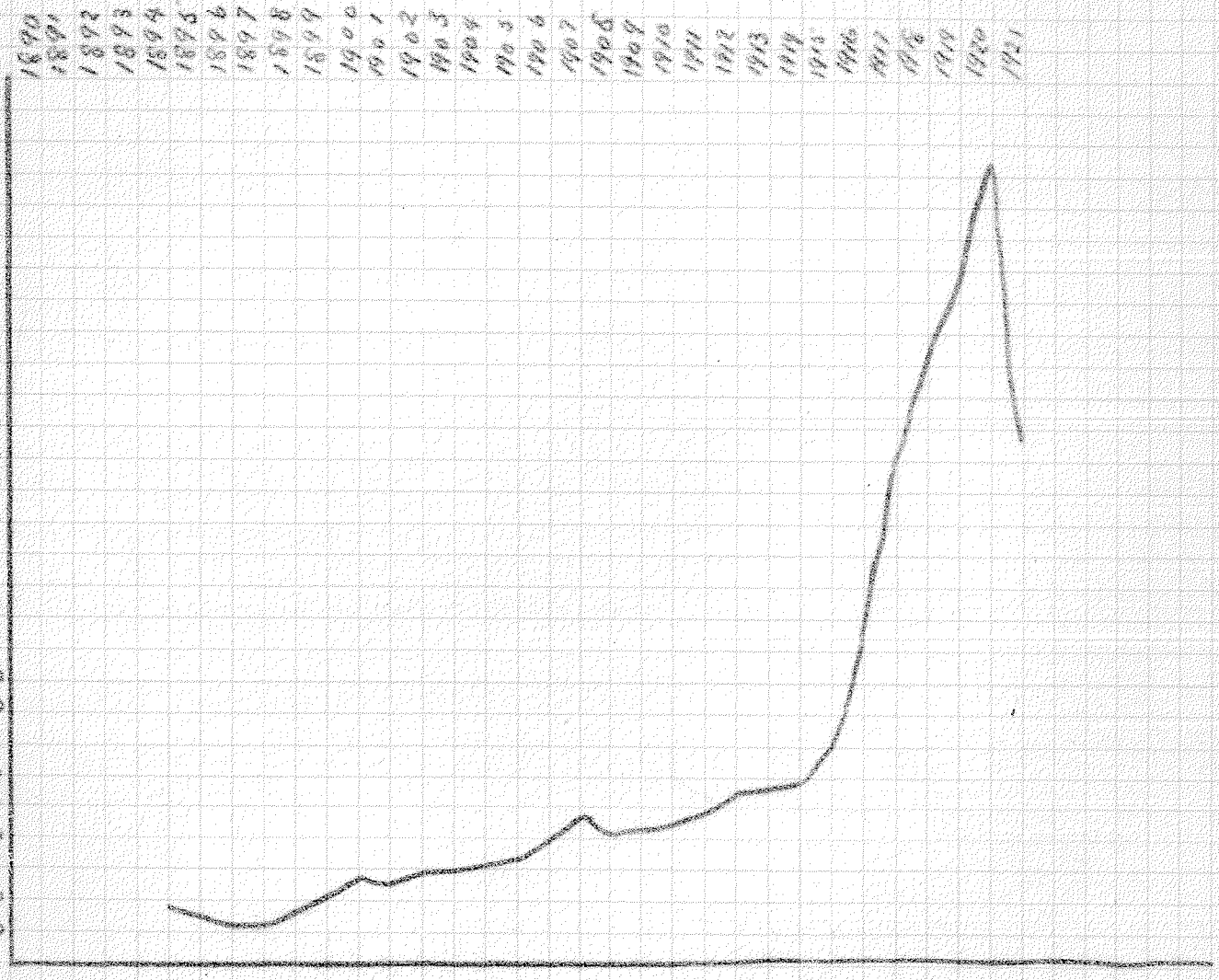
Graph I.



Vertical 1" $5,000,000

Dominion Taxation

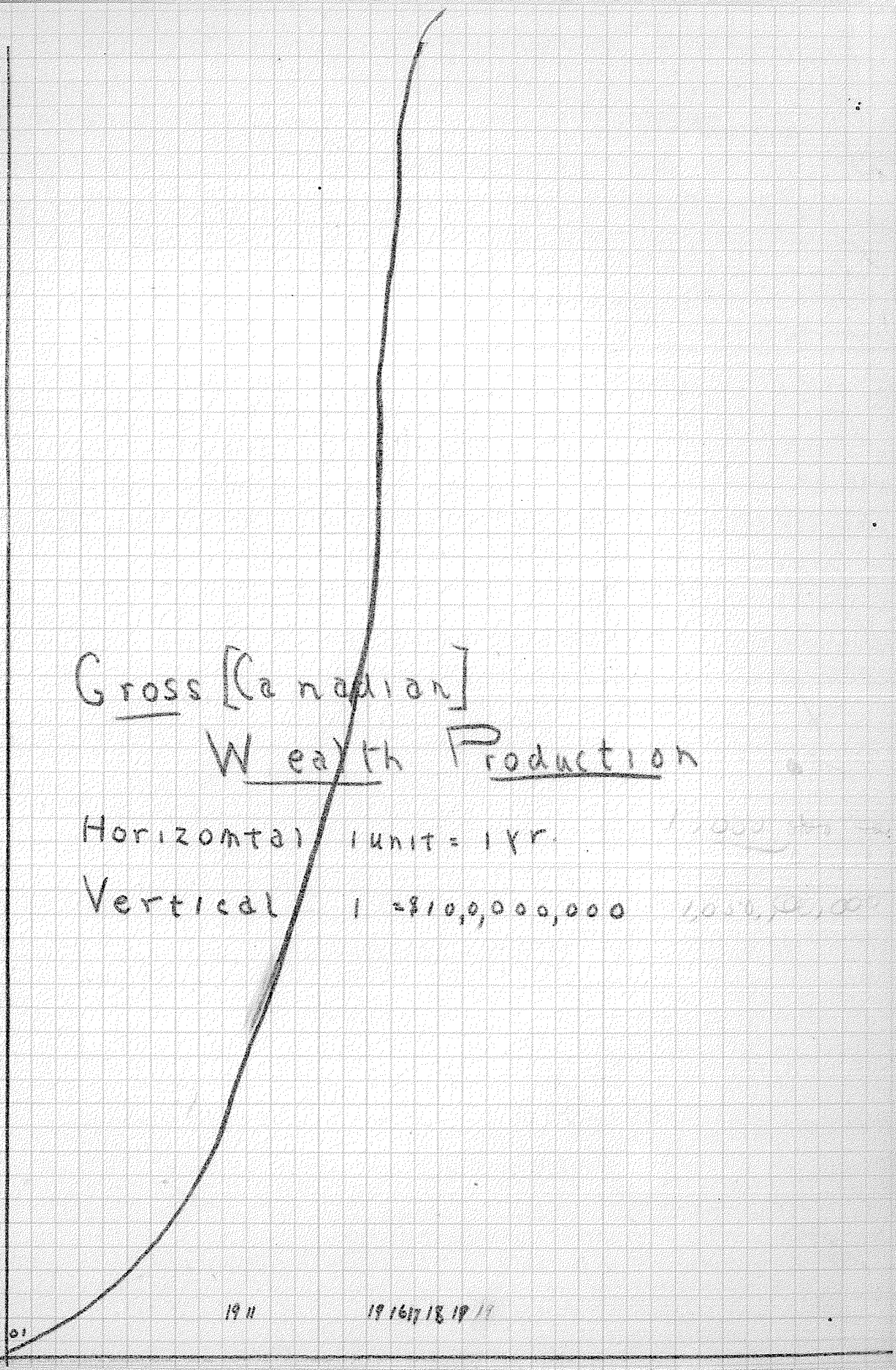
Graph II.



Wholesale Prices, Canada 1890-1921

Average 1890 = 100 [Can. Year Bk]

Graph III.


Gross [Canadian]
Wealth Production
Horizontal 1 unit = 1 yr.
Vertical 1 = $10,000,000
1901
1911
1916 18 19
$1,050,000,000

Graph IV.

CHAPTER THREE.

THE PRINCIPLE OF UTILITY.

1. In discussing the desirability of such movements as we have just noticed, an appeal is to be made to the Principle of Utility. This principle, broadly interpreted, has had, and for some time to come will continue to have, considerable influence on legislation and the management of public finances. In passing judgment on any public act or policy, it is by an conscious or unconscious application, conscious or unconscious, of this principle or of some rule derived from it that a conclusion is eventually reached. It forms an ultimate basis for all the more practical and specific maxims of administrative policy. The most generally accepted basis of taxation, for example, the faculty basis, may be considered as a rough but practical rule which it enjoins.

It is true that it does not, in itself, supply a practical and immediately applicable criterion by which, alone, specific policies may readily be judged. Its precepts are, to a degree, abstract and formal. But unless a more immediate and practical rule-of-thumb does, in the long run, tend to increase human happiness, it is not a suitable maxim for the conduct of the business of the state.

Since the term "utility" has been used sometimes in a wider, and sometimes in a much more restricted sense, it may be well to preface the application by a study of the principle itself, and a discussion of the meaning of some of the terms

to be used.

2. The Benthamite maxim, "the greatest happiness to the greatest number", was accepted with modifications and interpretations by J.S. Mill (1), Sidgwick (2) and others; but the hedonistic psychology, that pleasure only is desirable and the sole motive of action, by which Bentham and his followers supported the maxim, has been subjected to severe criticism since it was put forward by the Cyrenaic philosophers of ancient Greece (3). To avoid the age-old controversy, let it be admitted that other things besides pleasure may be intrinsically desirable, and that desire may precede and cause action which may or may not be followed by pleasant sensation. The controversy belongs rather to Philosophy than to Political Economy, and if we interpret "happiness" broadly enough to include all the elements of well-being, then any opposition between idealist and utilitarian views is reduced to a minimum.

Utility, the capacity to promote happiness, will be used in a sense correspondingly broad. Wealth possesses utility but it is not the sole, nor perhaps the most important condition to well-being. Not only commodities and services but conditions and even activities apart from their material effects may possess utility in this broad sense. We shall accept the principle, so widely applied since the time of Jevons, that an increase in the quantity of any of the means to happiness tends to increase the total utility of that thing to the possessor, but at a diminishing rate; or, in other words, that, at any one time,

(1) Utilitarianism.

(2) Ethics Bk III. (3). Rogers, History of Ethics, p.39.

after a certain point,as the quantity of a good possessed or consumed by an individual increases,its marginal utility to him diminishes,or tends to diminish.

It has been contended that utilities and disutilities being of different kinds were incommensurable. It would seem however,that individuals can,and often do,after due consideration of the effects of two or modes of action or policies,compare the desirability of the results expected and act upon or choose the one which tends most to secure utility to them. Utilities,then,are compared and the result of the comparison may influence action. Sidgwick holds that motive power is not an accurate measure of desirability (4). Marshall,on the other hand,contends that "the economist does not claim to measure any affection of the mind directly" but only "by its motor-force" so that no new difficulty is introduced by the fact that some motives belong to man's higher,and some to his lower nature. It is submitted that considerations of utility in the broadest sense do sometimes and ought always to direct the actions and policies of individuals and states.

Actions and policies,then,are to be judged by the utilities they secure; and utility depends ultimately on some human consciousness. A change in human consciousness may affect the utility of certain commodities,services,conditions,or policies. In fact,such a change has been taking place.Throughout the ages human desires and wants have not only changed but increased in number and complexity."The uncivilised man,indeed, has not many more than the brute animal;but every step in his progress up-

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(4) Ethics, p. 126.

wards increases the variety of his needs together with the variety of his methods of satisfying them....It is man's wants in the early stages of his development that give rise to his activities,yet afterwards each new step upwards is to be regarded as the development of new activities giving rise to new wants."(4).The fact that wants vary from time to time and from individual to individual makes it necessary to consider (a) the meaning of progress and the relations between present and future wants and (b) the distribution of the means of satisfying wants.

3. Even after making allowance for risk,individuals tend to discount future enjoyment at a rate,high or low,varying with the individual and the stage of civilization. This tendency has been generally accepted by economists as an established fact ,and has been advanced as an explanation of the phenomenon of interest. The question here to be considered,however,is not whether the individual actually does prefer present enjoyment to equal and equally certain future enjoyment,but rather whether,in matters of public policy,the statesman ought on grounds of utility to discount future goods. The question has two aspects: (a) should a certain future utility to accrue to persons now living be deemed,from the standpoint of the statesman,as desirable as an equal present utility; and (b) should a certain utility to accrue to posterity be deemed as desirable as an equal proximate utility. Sidgwick would answer

(4). Marshall op.cit. Principles Bk I, Ch.2.

both questions in the affirmative: "It seems clear that the time at which a man exists cannot affect the value of his happiness from a universal point of view; and that the interests of his posterity must concern a utilitarian as much as those of his contemporaries, except in so far as the effects of his actions on posterity - and even the existence of human beings to be affected- must necessarily be uncertain."(5). On the other hand the capacity of enjoying future goods is to some extent dependent on the satisfaction of present wants. Not only is the consumption of a certain amount of utilities in the present necessary to future existence, but the satisfaction of present wants is, to some extent, a condition to the development of other wants. It would seem that, in Public Finance, a certain future good should be considered as desirable as an equal proximate good except in so far as the enjoyment of the present may be a condition to the enjoyment of the future good. It follows that the statesman should aim not only to make the present aggregate happiness as great as possible, but also to secure the possibility of still greater happiness in the future. He should aim at progress.

On strictly utilitarian grounds progress consists of increased of increasing human satisfaction, or, more broadly, well-being. It consists, on the subjective side, of the development of new or more desirable wants or abilities, and, on the objective side, of increased means of satisfying the wants or

(5). Ethics, p. 414.

exercising the abilities in action. Neither alone is sufficient: the development of wants no part of which could be satisfied would be an unmitigated evil; the production of the means of satisfying wants which did not exist would be useless - unless indeed, the activity involved were desirable for its own sake.

This point is important in considering saving and the growth of capital. It is possible that so great a proportion of annual income may be converted into capital goods, and so little devoted to the satisfaction of present desires, that wants may not develop as rapidly as the means of satisfying them. Ther may be misdirected production of capital, instead of consumers' goods. However improbable this condition may appear, it is more likely to occur in a highly developed society where activity often precedes desire than in a more backward one. If, for example, a very large part of the income of a state were taken by government in the form of taxation for the purpose of constructing permanent public utilities, this condition might conceivably occur, and might cause retrogression, or at least check progress.

The reverse condition; that so great a proportion of the annual income of a state is immediately consumed and so little converted into capital for future production, that the many desires so developed must remain unsatisfied, is perhaps more probable, and at least equally undesirable. If government were to tax so heavily for purposes other than the production of capital goods that the growth of capital were checked, production of the means to happiness in the future might also be checked. Inexpedient borrowing on public credit would have

ultimately,the same effect and would ~~not~~ encounter less immediate opposition.

If certain happiness in the future is held to be as desirable as equal proximate happiness,it follows that whatever tends to promote the capacity for happiness is of much more importance than what gives present satisfaction only. Allowance must,of course,be mafe for risk and for the fact that some present consumption is necessary to future happiness. That which satisfies a human ~~need~~ want but at the same time checks the development of capacity for happiness is almost certainly undesirable. As we shall notice later,then,indirect and less immediate effects are often of more importance than direct ones.

According to this view, changes in population and the standard of living ~~are~~ indicate progress more clearly than any other criteria,provided that the term "standard of living" is interpreted broadly enough to include satisfaction arising from everything that affects the lives of the people considered.

4. The fact that wants differed from time to time necessitated a discussion of the meaning of progress; the fact that wants differ from individual to individual makes a discussion of ~~distri~~ the distribution of the means to happiness equally necessary. ~~On what principle~~ In the endeavors to discover the proper relations between the maximum utility principle and the principle of formal justice,conflicting opinions have been expressed. In taxation,for example,

some have held that distributive justice requires that the ideal be equality of sacrifice and not minimum disutility; (6) others hold that proportional sacrifice is demanded (7); and still others, that the two principles are not inconsistent. (8). Bentham's explanation that each is to count for one and nobody for more than one, is sufficiently ambiguous to admit of any of these interpretations. The formal demands of justice, as the last mentioned group contend, would probably be satisfied if each were given equal consideration when deciding upon a policy; but statesmen must consider not only justice in the abstract but also the ideas of justice held by large numbers of the citizens of the state. A tax, for example, which causes to the bearers little direct disutility compared with the revenue derived from it, is not desirable if it gravely offends the ideas of justice prevalent in the state at that time. Whatever offends the positive morality of a particular time and place is, so far, a disutility to the inhabitants of that place at the time, and, in the construction of policies, must be considered like any other disutility. If, however, due allowance be made for this factor, utilitarian principles would lead to the belief that a policy is right when it secures maximum aggregate happiness, even though some individuals possess very

(6). Mill, Bk. 5, Ch. 2. #2.
Nicholson, Principles, p. 270.

(7). cf. Professor Edgeworth in Economic Journal, vol. 7, p. 557.

(8). e.g. Sidgwick.

little and others a great deal.

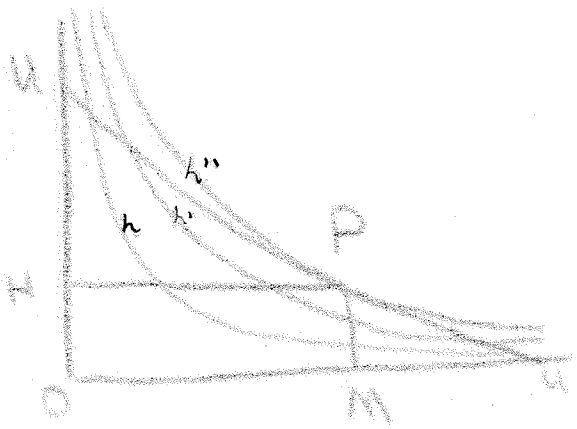
Since wants are variable, it is necessary to consider, not only the amount of the means to happiness but their distribution, way in which they are distributed (in estimating aggregate utility). The greatest happiness principle does not suggest as an ideal the production of the greatest amount of means to happiness, if such production necessitates their distribution in such a way that the happiness actually resulting is less than the happiness that would result from less means to happiness differently distributed. It is meaningless and may (even) be misleading to consider the means to happiness apart from the individuals by whom they are to be enjoyed. A literary masterpiece would possess as little utility for an Australian bush-man as an Indian dish of musk-rat stew for a fastidious epicure. The point may be further illustrated by considering what at first seems to be a contradiction in Sidgwick,s discussion of the utilitarian ideal regarding the relation of population to production. In the Methods of Ethics he states the ideal in terms of happiness as follows: "Strictly conceived, the point up to which, on utilitarian principles, population ought to increase is not that at which the average happiness is the greatest possible, but that at which the product formed by multiplying the number of persons living into the amount of average happiness reaches its maximum".(9). Even this can scarcely be regarded

(9). Ethics P. 415.

as entirely satisfactory,since it takes no account of the happiness of posterity; but when he attempts to formulate the ideal in terms of the <u>means to happiness</u> the inaccuracy appears more serious : "We may take the subject of Political Economy .... to include ..(1) the art of making the proportion of *population/to* produce to population a maximum." (10). It is true that later he recognizes the necessity of some measure of value to estimate the amount of the produce,and that this measure may contain an subjective factor,but so long as the ideal is kept objective,and the means to happiness are considered apart entirely from the individuals who are to be made happy,

(10). Principles of Political Economy

(1) The statement of the ideal in the Ethics involves no absurdity. If population increases more rapidly than production off the means to happiness,then as population increases,the average happiness will tend to decrease at a diminishing rate. This may be represented by some such curve as Uu,if the ordinate represents average happiness,the abscissa population and h,h' h'',etc.a series of rectangular hyperbolas.



The curve touches h'' at the point P and at that point the product of the co-ordinates is a maximum.The utilitarian ideal as stated in the Ethics,then,would be realized with the population OM and the average happiness PM.

there is room for an absurd interpretation (11). It is conceivable that some potential means to happiness might exist in a country without any population. In this case the ratio of means to happiness to population would be indefinitely great and the ideal would be achieved. In answer to this objection it might be contended that the ideal refers only to producti n and that without population there could be no production. This defense, however does not lessen the value of the point as an illustration of the danger of formulating a policy as to the means to happiness without considering the individuals who are to use those means. Subjective ideas of utility must be considered, and what is desirable for a certain state at a given time may not be desirable for another state or for the same state at a different time.

5. The utilitarian doctrines noted above may be briefly summarized :

(a). In matters of public policy the aim should

(11). cf نفسه p. 28.

(12). Let m represent the means to happiness and p population. The ratio m/p will increase (1) if m increases and p decreases or (2) if m increases while p remains constant, (3) if m remains constant while p decreases, (4) if m and p both increase, but the ratio of the increase in m to the increase in p is less than m/p, (5) if both m and p decrease but the ratio of the decrease in m to the decrese in p is less than m/p. In cases 1, 3 and 5 if the change is made large enough p becomes indefinitely small and the ratio indefinitely great.

be to make the aggregate happiness of the citizens as great as possible - happiness to be interpreted in the broadest sense so as to include all the elements of well-being.

(b) Certain future happiness and equal proximate happiness are to be given equal consideration except in so far as present satisfaction is a condition to future enjoyment; hence the statesman should consider not only present well-being but future progress which means the development of a better standard of living in the broadest sense of the term.

(c) Allowance being made for contemporary positive morality, each individual is entitled not to equal happiness, nor to equal means to happiness, but to equal consideration.

The ideas of total, marginal and diminishing utility will be used - the term utility to be interpreted as capacity to increase happiness in the widest sense.

These doctrines have been severely criticised, in some cases perhaps with reason, but it is submitted that they commonly are and should be implied when reference is made to general expediency in matters of Public Finance.

CHAPTER FOUR

SOME EFFECTS OF EXPENDITURE AND TAXATION.

1. The principle of utility enjoins a careful study of the effects on human happiness of increases or decreases in public expenditure, but it is, of course, impossible to include in an essay such as this a detailed examination of the results of of the particular expenditures which are included in the increasing budgets of modern states; and the desirability of pursuing a study of the general effects of expenditure, and more especially of taxation, has sometimes been considered problematical. Professor Seligman, for example, holds that " to discuss nothing but the "effects" of taxation in general would be to render abortive the entire analysis which.....has led to the conclusion that the problem par excellence is that of Shifting and Incidence" (1). Accordingly it seems desirable Bastable, however repeatedly emphasises the need for considering general expediency in matters of Public Finance, and of balancing the utilities and disutilities involved in an increase or decrease in expenditure. Accordingly it seems desirable briefly to notice some of the effects of taxation and expenditure that are too often overlooked, and especially to point out that the direct effects are not the only nor perhaps the most important ones.

There is another reason for adopting this course. Mill based his conclusion that "laissez-faire should be the general practice: every departure from it, unless required by some great

(1). Shifting and Incidence, Introduction.

good is a certain evil,"(2) partly on his distinction between between conduct which affects only the doer and conduct which affects the interest of others.(3). Since his time forces have operated to emphasise the close connection between "public" and "private" conduct. The tendency to accept the utilitarian principle,to reject the distinction between public and private conduct.and to neglect the indirect effects of expenditure, has been one of the causes leading to the great increase in expenditure which was examined in the second chapter. It is, for this reason, desirable to discuss the less immediate effects of taxation and expenditure.

2.Fortunately,neither in theory nor in practice, is it necessary to discuss the total utilities of the more generally recognised forms of government expenditure. Writers on Politics and Public Finance alikeare in general agreement that some expenditures on the part of a community as organised in its government are necessary to secure complete human development or maximum happiness. Statesmen are confronted with the alternatives,not of abolishing them entirely or adopting them in their most extensive forms,but rather of decreasing or increasing them by fractional amounts. In most states in modern times the difficulty apparently has not been to decide whether to increase or decrease expenditures but to calculate how much they should be increased and in what directions.

3. Professor Adams has classified expenditures as arising from the Protective,the Commercial,and the Developmental

(2). Principles,Bk.V, Ch.XI. §7. (3). Ibid. §2, and Essay on Liberty

functions of government. The protective functions require expenditures for military and judicial purposes, for Police and Public Health; the commercial functions give rise to expenditures in industies which are operated by the state for the purpose of securing greater utility to the community or revenue for the public purse; the developmental functions involve expenditures for education, recreation, public investigation and research, and the development or preservation of natural resources.

The direct effects, or rather the intended direct effects, of each particular increase in expenditure are, then, in all cases, beneficial, immediate and apparent. They are given sufficient emphasis before, and in cases where the intended results have been attained, after they have been made. The evil effects are indirect, gradual and less clearly evident, and, consequently are unnoticed or even purposely neglected. When the reasons which led to expenditures have disappeared, the expenditures themselves too often continue. Proof, by long and sometimes disastrous experience, that the utilities are not commensurate with the disutilities involved, may eventually lead to their cessation; but, on the other hand they may be made the basis of claims for expenditures on superficially similar projects. A more potent, and perhaps more rationally directed factor in decreasing expenditures may be a meritorious desire on the part of governments to display to the electors the results of a regime of strict economy and upright and efficient administration.

4. Though the direct benefits involved in public expenditure

need little additional emphasis, the indirectand less desirable results are given less publicity. A policy which, in the earnest pursuit of an immediate object however praiseworthy, neglects or discounts incidental effects cannot be too severely censured. Many of the incidental effects, doubtless cannot always be foreseen, but a careful study will usually show that the total effects are wider and more far-reaching than the intentions which prompted the expenditures. A few examples from the fields of Consumption, Production and Distribution may serve as illustrations.

When a public undertaking, e.g. a public park, library or museum, is discussed, the advantages are evident in the direct effects: a certain number of citizens will derive from it additional happiness; it may even develop their capacity for aesthetic or intellectual enjoyment. Too the fact remains concealed that such expenditure forcibly takes from individuals a certain amount of general purchasing power and, after deductions for collection have been made, returns to them or others only a special kind of commodity, the enjoyment of which may not be adequate compensation for the disutility involved. As against the the economy resulting from inclusive or common consumption of such a good, it is generally conceded that, among responsible individuals, greater satisfaction results when each selects for himself the commodities he wishes to consume. There are of course exceptional cases where the individual is not the best judge of

his own interest (4). And in these cases government interference is of course justifiable.

Again government expenditures really determine in what way, and with what result, a certain part of the productive agents of a nation shall be employed. Funds applied by government for the same purposes as they would have been if left in private hands, will neither increase nor diminish the amount of the national dividend - provided only that public is as efficient as private management. The truth of the proviso however is problematical. It is usually conceded that in many forms of production at least, state management is less economical than private management, and an increase in expenditure for these purposes will result in a diminution in the national dividend.

But apart from this more or less contentious ground, public management seldom if ever does direct production into exactly the same channels as private management. There are of course desirable enterprises where the lure of profits is insufficient to cause an investment of private capital, and in such cases state enterprise is desirable; but usually private capital competitively employed by entrepreneurs competitively selected does, in the striving after profits, tend to guide production into the channels where it can most economically satisfy the effective demand. The marginal utility of the commodities is one of the factors determining effective demand so that, in

(4). cf. Mill, Principles, Bk.V, Ch. XI.

these cases,unless changes are made in distribution,government expenditures tend to decrease the national income of happiness. It is difficult to see how considerable changes toward a more equitable distribution are to be effected without undesirably reacting on production and population and,in this case too, causing a diminution in the national dividend. Expenditures on bounties exemplify this point.

A special case involved in the preceding argumentis the effect of government expenditure on the relation between saving and spending,i.e. between the production of consumers' and capital goods. If the government appropriates,in the form of taxes,an amount which a number of citizens would have employed,for example,in constructing a gas plant,and itself constructs the plant, the net result result as regards production is ,supposing equal efficiency of management,the same except in so far as the cost of collection is concerned. The increase in taxation involved has not changed the relation between saving and spending. But if,instead of building, government spends the revenue,for example, in superfluous inspection,the relation between saving and spending is affected. Neither saving nor spending is alone and of itself desirable. A certain amount of saving, i.e. spending, i.e. immediate consumption, is necessary to satisfy present wants and to develop others to correspond to the increase in production which saving may help to effect. It is necessary to strike a balance between them. In general a responsible

is able to strike a more satisfactory balance than the state can effect for him.

The desire for equal advantages, which has been an active factor in swelling public expenditures, usually has as its primary object, not the diminution of the advantages of the more, but an increase in the advantages of the less fortunate. It manifests itself, for example, in expenditures on unemployment and poor relief. The indirect effects of taxing the industrious to provide for the improvident have, in the past been very undesirable. A more equal distribution of the means to well-being is justifiable, as we have noticed, only when it does not decrease these means to such an extent as to lessen aggregate utility.

A strong case may be presented for government regulation and inspection where it is considered that the consumer has not sufficient technical knowledge to enable to know his real interest. But against the direct utility secured we must balance not only the cost of such inspection but its indirect effect on the consumer. A law prohibiting any owner from sending a vessel to sea without a certificate of its sea-worthiness, would seem a reasonable and desirable measure. The good results to be expected are apparent. But once the certificate is issued the boat owner feels less responsibility, and the public shows less caution. Public officials may be careless, incompetent or corrupt. Yet public confidence in the efficiency of the inspection prevents the individual from taking measures to protect himself. After a certain point, at least, "state

help kills self-help".(5).

Then, too, the individual citizen does not and cannot in every detail completely identify his wishes with those of the state; and even if at any one time he could, he has no assurance that he will always be able to do so. His independence is, in itself, a source of happiness to him, and the spirit resulting tends more to promote self development than does the servile spirit of dependence which public control of a large part of income and expenditure might foster. It is true that on universal utilitarian principles the individual should be controlled by the state when such control results in increased aggregate utility, but the disutility involved in coercion is one of the factors which has to be considered in estimating aggregate utility.

These examples will, it is hoped, serve to show that public expenditure, even when directed towards worthy objects, may, and usually does involve in its indirect effects disutilities for which allowance should, as far as possible, be made in calculating aggregate utility.(6). Let us turn to the greatest of these disutilities, which so far we have noticed only indirectly: Taxation.

(5). cf. Dicey, Law and Opinion in England, Lecture VII. also Goschen, Essays and Speeches; Laissez-faire.

(6). cf. Nicholson, Principles, Vol.III. p.382.

5. As we have seen (7),taxation is not only a result of,but, in modern states,a necessary condition to,non-economic expenditure. And it is generally conceded that its effects are, on the whole,undesirable. Space does not permit a discussion of the relative undesirability of various taxes and systems of taxation. We must confine ourselves to a study of some of the effects common to practically all tax systems.

The direct and most evident effect of taxation is a reduction in the gross incomes of the individuals who pay the tax. But the initial payer does not necessarily bear all,and may not bear any of the direct burden involved. He may shift the tax,partly or entirely,backward or forward; in the case of an old and fairly constant differential tax on a durable and exchangeable possessions,he may have bought himself free of the tax through capitalization,and in this case the direct burden has been borne by the owner at the time the tax was imposed; or,in exceptional cases,the tax may stimulate or cause a change in productive processes leading to such increased efficiency as to offset or more than offset the tax,i.e. the tax may be transformed.(8).

In the latter case no direct disutility is involved and

(7) ante Ch. II.

(8). Seligman, Shifting and Incidence,Introduction.

even a balance of utility may result. It might seem,then, that taxes which are transformed,far from setting a limit to expenditure may even provide a reason for increasing it beyond the amount which would otherwise would be desirable. Unfortunately the facts of the case have forced even those modern economists who admit the possibility of transformation to conclude that the phenomenon is so rare as to be of little practical importance. In general"Necessity in the guise of taxation is not the mother but the stepmother of invention".

In all other cases,taxes diminish the incomes of those individuals who ultimately bear them. According to the law of Diminishing Utility,at any one time as the income of an individual increases,its marginal utility to him tends to diminish;and vice versa as the income of an individual is diminished its marginal utility to him increases. As taxation is increased,then,the disutility incurred by the bearers of the direct burden tends to increase more than in proportion.

But the direct disutility to the individuals who ultimately pay the tax is not the only,nor,when taxation becomes heavy,even the most important undesirable effect. Of the total means to happiness annually produced in a state or acquired from abroad by exchange from abroad,part is required to maintain the efficiency of the laboring population, or to increase the labor force of the state in numbers or efficiency; part to repair,replace or increase the capital

employed in production. The remainder is consumed in such a way that it does not correspondingly increase productive efficiency. Part of it may be useful in promoting development which does not directly influence production. The immediate utility derived from the consumption of the rest does not more than balance the disutilities incurred simultaneously or subsequently resulting, and this part, it would seem, might well be appropriated by the state. Practically, however, it is found that taxation is almost powerless to encroach on this portion of individual expenditure. Among the well-to-do, taxes on "luxuries" may have the effect not of diminishing their consumption but of decreasing saving; while taxes on alcoholic beverages are as likely to check the consumption of necessaries as to enforce sobriety.

Whatever part of taxes does not come from a reduced consumption of harmful or, at least, on the whole, non-beneficial commodities must check progress or the growth of capital or affect the number or efficiency of the laborers of the state. Any of these results will tend to diminish production, and cause a still greater diminution in the national dividend. Increases in taxation progressively affect the power to save; they may also affect the will to save. Certain taxes affect the power and the will to labor; others discourage the improvement of land. This weakening of productive forces and the interest in producing has, as we have just noticed, a cumulative effect on the national dividend. (9).

(9). cf. Pierson, Principles of Political Economy Vol. II. Part IV., Ch.1.

6. So far we have been considering only the results of using part of the produce of a community for public purposes; but a tax which adds but little to the public revenue may never the less cause considerable disutility. A prohibitive tax on a consumable commodity,for example,may yield no revenue and yet deprive the would-be consumer of considerable satisfaction.The resulting change in production tends to throw fixed and specialised capital out of use,and to cause unemployment of specialised labor,or,perhaps,to cause labor skilled in one particular branch of production to become unskilled labor in some other branch. Whatever the more remote results,the reorganisation of production involved tends to occasion considerable disutility. In addition it tends to direct industry into other and presumably less productive channels. When the tax is less,or the demand less elastic,the effects will be less in amount but similar in kind.

Again when wages are at a "bare subsistence minimum" it is generally held that a tax on wages tends to be shifted to the employer through by reason of a check to population. But taxes may be changed or levied in a day,while the preventive checks to population tend to affect the supply of labor in the following generation. Thus though the tax may be ultimately shifted,in the mean time the"pressure of the impact" (10)

(10). Seligman,Shifting and Incidence, Introduction.

may cause untold misery.

7. Taxation has,at various times,been employed,though with little success,as a means to social betterment. It has,in these cases,often taken the form of a tax on consumption. In so far as such taxes yield a revenue,they do not accomplish ~~more closely resemble~~ ~~MUCH~~ ~~of~~ their purpose; in so far as they do not yield a revenue, they more closely resemble sumptuary laws than taxes,and their enforcement requires expenditure. They are taxes in name only; any social benefit derived from them may be attributed to government expenditure. They require but scant attention since in no case have they secured the desired results.(11).

8. To sum up : taxation involves a direct disutility in curtailment of individual incomes; ~~they~~ tends to weaken the productive forces of a nation through a decrease in the efficiency of labor,e.g. taxes on necessaries, or a check to capital formation,e.g. steeply progressive income or inheritance taxes; ~~they~~ may lessen the interest of the nation in producing; the process of shifting may involve indirect disutilities; any utility indirectly resulting from taxation is, to say the least unimportant.

It would seem,then,that no matter how economical or equitable the taxation system,the direct and apparent effects are not the only,and perhaps not the most important disutilities involved.

(11). cf. Nicholson op.cit. p.284.

For a more favorable account cf. Adams op.cit. pp.401 sqq. and Sir J. Stamp, Principles of taxation.

CHAPTER FIVE.

The Ideal Relation between Taxation and Expenditure.

1. As we noted in the preceding chapter, government expenditure aims primarily at increasing utility, but its effects are far wider than its aims. The incidental effects are partly desirable, but also partly undesirable. When from the sum of utilities consequent on a given expenditure the disutilities involved are deducted, the remainder may be termed the net utility resulting from the expenditure.

Similarly, when from the aggregate disutility, direct and indirect, resulting from a given increase in taxation, the utilities, which we have seen are usually unimportant, are deducted, the remainder may be termed the net disutility of the additional tax. In this chapter we shall consider the relations between the net utility of government expenditures and the net disutilities of taxation. It seems desirable to start from a supposition of static conditions, i.e. to suppose that as taxation and expenditure change no other forces are at the same time tending to cause a change in the wants and number of the people, the relation of public to private wants or the total net production of the state, and that there is in the interval considered no change in the system of taxation or the administrative efficiency of government. Assume moreover that there are no

sudden and unavoidable increases in expenditure due to external conditions, e.g. increased expenditures for military purposes following a declaration of war.

2. At any one time the additional net utility derived from additional non-economic expenditure in any one direction tends, after a certain point, to diminish. Or, in other words, after a certain point, the marginal net utility of expenditure on any one service or commodity tends to diminish as expenditure increases. For example in the maintenance of order a certain number of constables are necessary and considerable utility is derived from moderate expenditures in providing them. The net marginal utility of expenditure may for a time increase, but as additional men are hired and additional expenditures made, a point will at least be reached beyond which the utility to be derived from additional policemen rapidly decreases. Similarly, in the administration of justice, considerable utility may be derived from moderate expenditures on court-houses; but as additional expenditure is undertaken to increase their number or magnificence the marginal net utility of such expenditure decreases. Similar conditins obtain as to expenditures on military uniforms, school equipment, public health inspection or even civil service salaries.

Moreover the traditional classification of the functions of government into "necessary" and "optional" (1) is sufficient proof that initial expenditures in some directions have indefinitely great utility, while initial expenditures have

(1) Mill, Bk V., Ch 1.

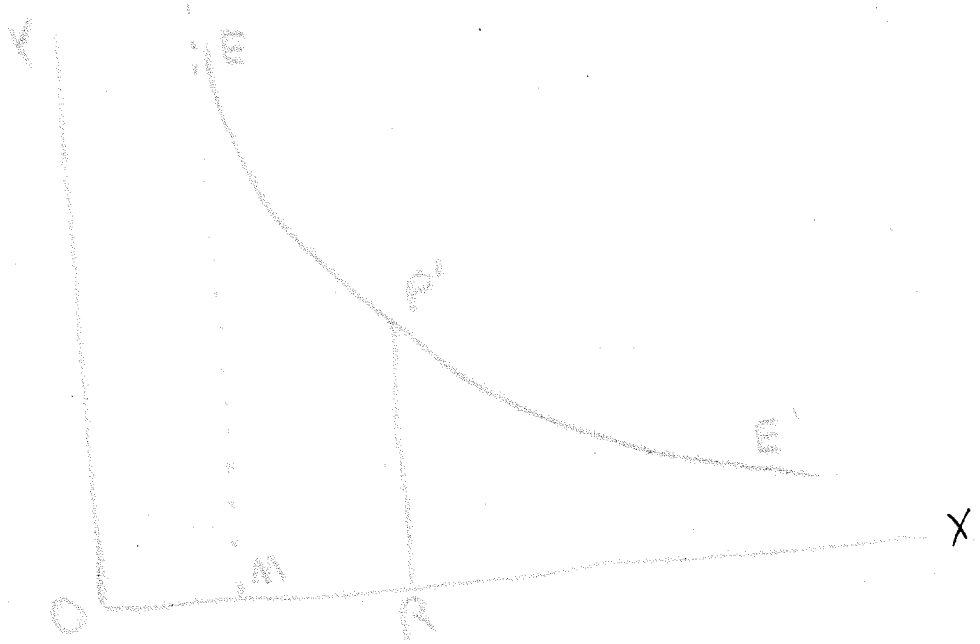
for other purposes have less utility. Accordingly if we suppose that expenditures are first made for those purposes which yield the greatest amount of utility to initial expenditures, and that succeeding expenditures are made in order of descending initial yield, after a certain point, the direct utility of initial expenditures tends to diminish. Or, in other words, as expenditures are made for more and more purposes the marginal utility of expenditure tends to decrease.

There is no reason to suppose that the indirect disutilities decrease, or the indirect utilities increase, so rapidly as to counteract this tendency. Quite the reverse; some expenditures, for example poor relief, tend at first to make self help possible and so confer indirect benefits; but if increased beyond a certain they foster a spirit of dependence and their indirect effects are undesirable. Our argument, then, applies equally to the net utility of expenditure.

We may say, then, borrowing our phrases from the theory of rent, that at any one time as public expenditure is increased either intensively, i.e. for one particular purpose - or extensively -i.e. for more and more purposes- the net marginal utility of such expenditure to the citizens of the state tends to decrease. The force of the preceding considerations is increased when we consider that the revenue from many forms of taxation tends to become inelastic as the rate increases

The maximum aggregate happiness will be secured from a given amount of public income when it is so spent that the ~~marginal~~ net utility of the last dollar spent on each purpose is the same. (2).

The preceding argument may be illustrated graphically.



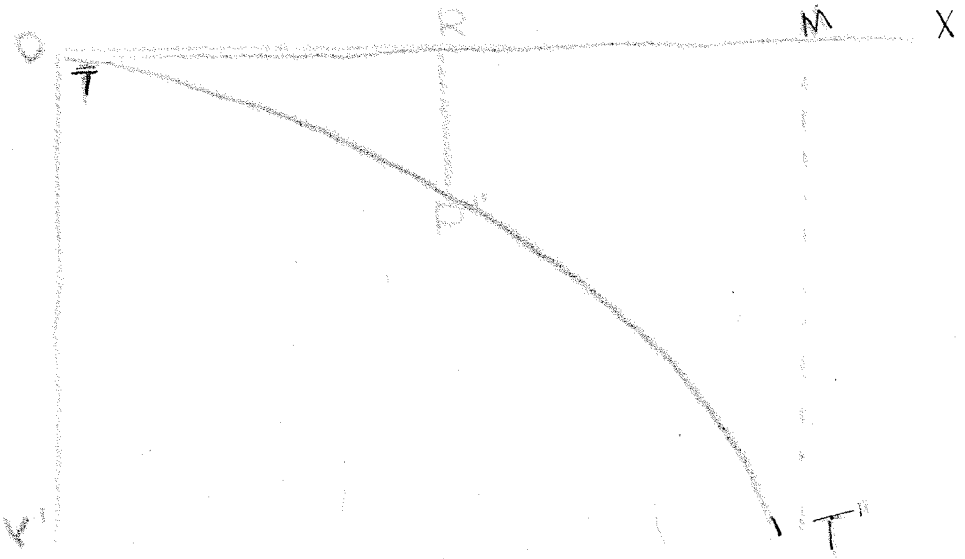
If units of ~~net~~ utility are measured along the vertical axis O Y, and units of expense along the horizontal axis O X, and if P' is a point which moves so that its ordinate P'R represents the net utility of expenditure, then P will trace out a curve EE' . This may be termed the utility of expenditure curve. If OM represents the amount at a given time in a given state which would be required to enable

(2). Nicholson, op.cit. pp.381-2.

government to perform the barest individualistic minimum of functions, then expenditures previous to M secure an infinite amount of utility and the curve will be asymptotic to the ordinate through M.

3. No matter how just or economical the taxing system, as taxes are increased, the net disutility involved increases more than in proportion; or, in other words, the net marginal disutility increases. The direct effect of taxation is to diminish private incomes, and as incomes diminish the marginal utility of each tends to increase, or the marginal disutility involved in decreasing it tends to increase. Since the system of taxation is supposed unchanged the aggregate marginal disutility involved in taxation tends to increase as the rate of taxation increases. There is every reason to suppose that the indirect disutilities (e.g. the retarding of capital formation) tend to increase more than in proportion to the amount of taxes collected.

This argument too may be illustrated by a curve.

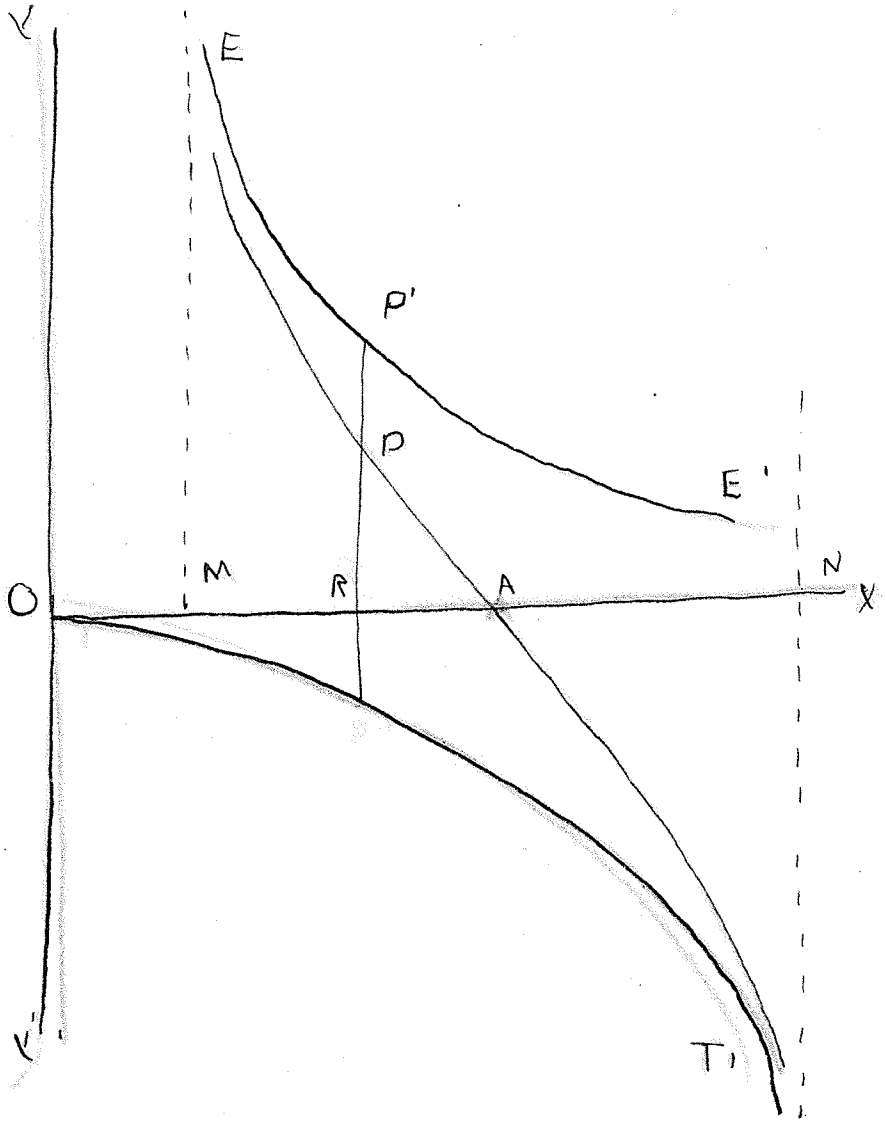


If disutility be measured downward along OY' and units of taxation be measured along OX,and if the point P" moves so that ∠A P"R represents the marginal net disutility resulting from successive units of taxation,it will trace out a curve which is represented in the diagram by TT'.If an amount ON may be raised by the given system of taxes without causing a progressive degradation of the standard of living , then the curve will be asymptotic to the ordinate through N.

4. As has been shown (3), non-economic expenditure increases necessitates or,at least tends to be accompanied by, at least a proportional increase in taxation. Hence, ~~it follows that~~, since the marginal net utility of expenditure tends to decrease,and the net marginal disutility of taxation tends to increase as increasing expenditures cause increasing taxation,there is a point at which the increase in net utility accruing to the community from an increase in expenditure is exactly balanced by the net disutility of the increase in taxation which that increase in expenditure necessitates. Up to that point each increase in expenditure and taxation has been accompanied by an addition to the happiness of the citizens of the community; beyond that point each increase in expenditure and taxation tends to cause an increasingly great diminution in the aggregate

happiness of the community. This point may be called the maximum utility point and the amount of non-economic expenditure indicated may be termed the maximum utility amount. It is to be noted that the argument of this section is not invalidated even if it is not agreed that the marginal net utility of expenditure decreases, so long as it is admitted that it does not increaseas rapidly as does the net marginal disutility of taxation. Nor is the conclusion invalidated by the contention that the net marginal disutility of taxation does not increase, so long as it is agreed that it does not decrease as rapidly as does the marginal net utility of expenditure.

The argument of this section may be illustrated diagrammatically in the case of expenditures which yield no direct return in the form of increased revenue. Since most authorities agree that the chief purposes for which borrowing is justifiable are (1) for economic expenditures and (2) for emergency expenditure when taxation is nearing its productive limit or when heavy taxation is politically inexpedient, and since we have excluded these cases from the present discussion, we may assume that an increase in expenditure such as we are considering must be met by an equal increase in taxation.



In the diagram utility is measured upward along OY, disutility downward along OY' and units of expenditure along OX. If EP'E' represents the utility of expenditure curve and TP"T' the disutility od taxation curve and if P is a point which moves so that its ordinate PR equals (RP' - P"R)

then A is the maximum utility point and OA the maximum utility amount.

The case of expenditures which yield a partial direct return in the form of increased taxation revenue may be similarly illustrated if P" moves so that its ordinate represents the disutility of the amounts of taxation involved as expenditure increases by amounts indicated along OX.

5. Thus far we have been considering the utility of expenditure and the disutility of taxation at a given time and place only, and consequently have been able to suppose that other conditions do not change. But the maximum utility amount is not the same for all states, nor for the same state at different times. Changing conditions may affect either the utility of expenditure or the disutility of taxation.

One of the factors which will clearly influence the size of the maximum utility amount is the amount of the general social income (3). An increase in the general social income, if unaccompanied by a change in the number or the wants of the population tends to decrease the disutility involved in taxation, causing a rise in the disutility curve and an increase in the maximum utility amount. Or, more generally, an increase in the average per capita social income tends to increase the ideal per capita expenditure amount. It is possible that the latter may be increased more than in proportion to the former. As Bastable notes(4): "The amount of

(3) Adams, Finance, Pt. I, Bk. II., Ch. 2.

(4). Public Finance, Bk. I, Ch. VIII.

the national income is also a factor to be considered (in determining the proper proportion of expenditure to social income). Expenditure requiring 10% of the annual income of India would be much more burdensome than if 30% were to be required in England or the United States." The distribution of the social income too may have a less direct and important effect on the disutility curve. If the change in the social income is the result of a change in the industrial organization of society, a change in the net utility of expenditure also may be involved. A change from an agricultural to a manufacturing economy has usually been followed eventually by an increase in state activities necessitated by the new perplexities and complexities involved in the new state. Such an increase is to some extent at least justifiable on the grounds that it affords new and beneficial channels to public expenditure. (5).

A change in external political relations may cause a change in the maximum utility amount. Increasing armaments on the part of traditional or potential national enemies, or chronic and increasing national antagonism cause estimates of the utility of military expenditures to increase and justify an increase in such expenditure, and vice versa. Internally an increasing tendency towards voluntary associated action may cause a fall in the utility of expenditure curve, and a decrease in the maximum utility amount.

6. Changes in the number, the distribution and the character

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(5) See Adams, Bk. I, Ch. II, p. 39.

of the population are also important factors. Increase in the numbers or concentration of population tends to cause an increase in the marginal utility of expenditure on judicial administration and police. (6). It has a similar effect on certain forms of what Adams terms developmental expenditure, e.g. on education and public parks.

It is important to note that a rise in the utility of expenditure curve and a consequent increase in the maximum utility amount does not mean that an extension of the functions of government is desirable. Rather in some cases the opposite is indicated, particularly when the rise is occasioned not by a subjective expansion of wants but by a change in environment affecting security. For example, an increase in hostile armaments will tend to increase the fear and danger of foreign invasion. An increased amount must now be spent before the marginal utility of expenditure in this direction falls so much as to be only equal to the initial expenditure for marginal or near-marginal purposes. The expenditures for marginal purposes - whether these be initial expenditures for marginal functions or marginal expenditure for super-marginal functions - will have the same utility as before; but the disutility involved in securing the corresponding revenue will now be greater, since a larger amount has already been raised. Hence, expenditure for marginal and near-marginal purposes will now have become sub-marginal expenditure.

In cases such as we have been considering the rise in the utility curve is due to an extraneous increase in disutility which

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(6) Bastable, Bk. I, Ch. III.

must be counteracted before the capacity for happiness can develop. An increase in disutilities is, of course, not to be considered progress. (7) On the other hand, an increase in the capacity for happiness causing a similar use in the utility of expenditure curve may justify expenditures for purposes which previously were sub-marginal.

Even more important changes in the maximum utility amount may be occasioned by changes in the character of the population. if there is no change in the ratio of "public" wants, (i.e. those which may be satisfied with the least aggregate disutility by governmental action) to "private" wants, (i.e. those which may be satisfied most economically by private enterprise), then progress, which we have defined as the development of wants and the means of satisfying them, will lead to an increase in the maximum utility amount of public expenditure. An increase in the ratio of "public" to "private" wants will have a similar effect.

Other things being equal, a larger measure of state interference and consequently a larger amount of public expenditure is probably justifiable in a state, or at a time, when average individual initiative is weak, than when a more energetic and self reliant spirit prevails. This case, however, is complicated by the fact that the extent of state interference itself may affect individual initiative. (8) A certain amount spent

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(7) cf. Ante, Ch. 2, par. 5.

(8) cf. Haney, p.132. "Under the conditions of the time there was a lack of energy and go-ahead on the part of private individuals, so that when Government did not lead, stagnation was the rule."

on the "removal of obstacles" may help to increase individual self help; but expenditures, which from considerations of immediate utility, might seem desirable, may really result in such a prolongation or increase in individual stagnation that its net utility may be very small or even negative.

Another point which may be mentioned in this connection must be treated very briefly since its economic aspect is by no means the most important, viz: the relation existing between positive morality and public regulation. When the positive morality of the bulk of the population of a state is higher than the legal standard of action then less may justifiably be spent on judicial administration and police than when the law forbids or allows actions which the existing positive morality or custom allow or do not require. The deeper question of the moral function of the state belongs to the sphere rather of Politics than of Economics.

7. Changes in the taxing system which allow larger amounts to be collected with the same net disutility or the same amount with less disutility - direct and indirect - tend to raise the disutility curve and so far to increase the maximum utility amount, and vice versa.

Similarly, changes in the administrative efficiency of governments tend to raise or lower the utility of expenditure curve and so far to increase or decrease the maximum utility amount.

8. It is clear then that no fixed amount of total or per capita expenditure, and no definite ratio between public expenditure and social income can, in all cases, satisfy the utilitarian ideal as

as to the amount of public expenditure.

It is true that no principle capable of easy practical application has been expounded in this chapter. The aim of the discussion has not been to minimise the difficulties to the attainment of the ideal, but rather to emphasize the need of a careful and continual study of the results, direct and indirect, consequent on public expenditure and taxation.

CHAPTER SIX.

ACTUAL TENDENCIES.

1. We have discussed the ideal limits to Public Expenditure which utilitarian principles seem to enjoin. It remains to be seen how far, under a modern representative government, the ideal result can be or is likely to be, achieved in actual practice.

If the state were really "an organic unity" and, to use Spencer's phrase, possessed a "social sensorium", then, insofar as its acts were governed by a reason aiming at collective maximum utility and capable of estimating direct and indirect effects, the utilitarian ideal could and would be realized.

But the state is an organix unity only by analogy; it possesses no "social sensorium"; the utilities of various commodities, services and conditions are estimated by as many different consciousnesses as there are citizens in the state. Consequently, aggregate utilities cannot be exactly measured or estimated. Moreover, reason is not the sole guide of governmental action: tradition, custom and sentiment play an important part. Reason, exercised by individual statesmen or groups of statesmen, is doubtless an important factor; and reason enters also into the formation of that public opinion which influences their actions. It is to be doubted, however, whether in either case the sole or even the most important object towards which these reasons are directed, is the ultimate aggregate happiness of the citizens. Immediate and private interests consciously or unconsciously exercise a considerable influence which even

thorough-going optimists admit is sometimes not completely in harmony with ultimate public welfare.

2. Those who control public expenditure and taxation are influenced, among others, by two desires whose objects are not necessarily identical: (a) To act in the ultimate interests of the state; (b) To act so as to gain the approval of public opinion.

Insofar as the first is the dominant desire of those controlling public finance, the hindrances to attaining the ideal are inability to control expenditure, as in the case of the interest on the public debt, and lack of knowledge of the effects of proposed or existing expenditures and taxes. The lack of knowledge is likely to be far greater as to the indirect than as to the direct effects.

Insofar as the second desire is dominant, a well-organised and expressed public opinion will influence the financial policy of a government. The difficulty here is two-fold. Public opinion is usually based on an imperfect knowledge of the direct and a much more imperfect understanding of the indirect effects of taxation and expenditure. In the second place, it is seldom consistent. Almost without exception it demands at the same time increased expenditure, or more accurately expenditure for additional purposes, and decreased taxation. This tendency, however, has a desirable effect in encouraging administrative efficiency.

3. In general, then, it would seem that, even if we omit flagrant breaches of public faith which tend to increase public

expense and consider only the influence of knowledge and reason guided by a desire to increase public welfare, the immediate and apparent effects are likely to be given undue weight. As we have seen the indirect effects of taxation are for the most part undesirable, and the less apparent effects of public expenditure are by no means wholly desirable. The tendency will be then to extend public expenditure both as regards amount and purposes beyond the point which utilitarian principles would enjoin. As more and more the effects of both taxation and expenditure are studied and determined, the impediments which ignorance offers to the attainment of the ideal are likely to be overcome,- and a closer and closer approximation to it will become possible. But inasmuch as complete knowledge of indirect effects is never likely to be attained, the practical rule must be that an expenditure is not justifiable unless the ascertainable utilities considerably exceed the ascertainable disutilities resulting from it.

- BIBLIOGRAPHY -

The following are some of the more important publications consulted in the preparation of this essay.

Adams, Finance.

Bastable, Public Finance.

Canada Year Books

Dicey, Law and Public Opinion in England.

Edgworth, Articles in the Economic Journal

Ford, The Cost of our National Government

Leroy-Beaulieu, Science des Finances.

Goschen, Essays and Addresses on Economic Subjects

Haney, History of Economic Thought.

Jones, The Theory and First Principle of Taxation.

Mill,, Principles of Political Economy.

Utilitarianism

Nicholson, Principles of Political Economy.

Pierson, Principles of Political Economy.

Pantaleoni, Pure Economics.

Reports of various Provincial Governments and Municipalities.

- BIBLIOGRAPHY ctd. -

Rogers, History of Ethics,

Rashdall, Theory of Good and Evil.

Smith, Wealth of Nations.

Sidgwick, Principles of Political Economy.

Principles of Politics.

Methods of Ethics.

History of Ethics.

Statesman's Year Books.

Stamp, Principles of Taxation

~~British Incomes~~. Wealth and Taxable Capacity.

Webb, S. and B., Socialism in England

Seligman. Shifting and Incidence of Taxation

Essays on Taxation

Progressive Taxation in Theory and Practice