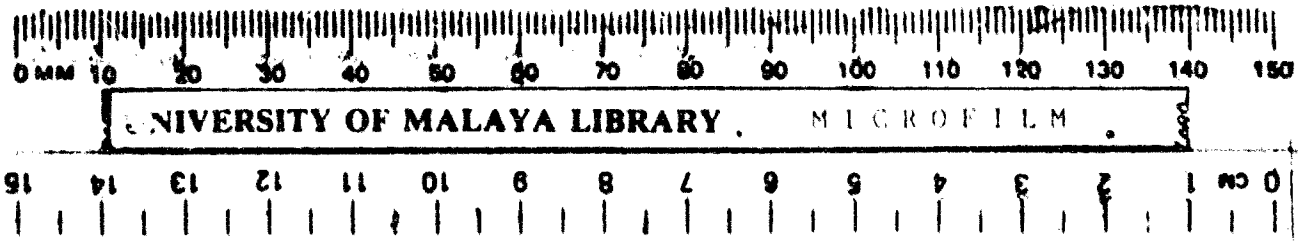

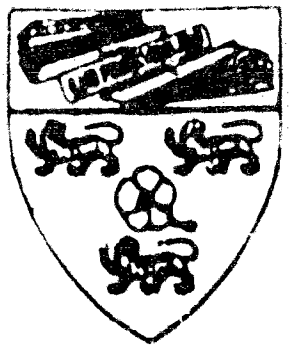

MULA

FISCAL POLICY AND THE NATIONAL INCOME

A STUDY IN THE LIGHT OF KEYNESIAN ECONOMICS

by

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A Graduation Exercise presented to
the University of Malaya in
part fulfilment towards the
Degree of Bachelor of Arts
with Honours in Economics

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CHAPTER I

INTRODUCTION

Nature of the Exercise

As the title suggests, this exercise is concerned with fiscal policy and how it affects the national income in the light of Keynes' aggregate analysis. In this context we will be discussing fiscal policy as a contracyclical tool as it is implicated and recommended in "The General Theory of Employment, Interest and Money" of J.M. Keynes. In the concluding chapter, we shall try to see how far these implications are applicable to the development policies of underdeveloped countries. But before we can go into all these, we must make a brief summary of Keynes' concepts. Keynes' ideas were a reaction to what he thought was the inadequate and unrealistic character of earlier economic theories. According to him, "...the postulates of the classical theory are applicable to a special case only and not to the general case... with the result that its teaching is misleading and disastrous if we attempt to apply it to the facts of experience."[1] However, in order to understand Keynes better, we have to go into the classical background.

According to Keynes, the term 'classical economics' refers to the principles of economics handed down since the time of David Ricardo up to the time of A.C. Pigou. To use his own words, "I have become accustomed, perhaps perpetrating a solecism, to include in 'the classical school' the followers of Ricardo, those, that is to say, who adopted and perfected the theory of the Ricardian economics, including (for example) J.S. Mill, Marshall, Edgeworth and Prof. Pigou."[2]

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[1] J.M. Keynes, The General Theory of Employment, Interest and Money, London, Macmillan and Co. Ltd., 1961, p.3.

[2] Ibid., footnote at the bottom of p.3.

'The classical school' as it is referred to by Keynes, actually embraces two schools, viz. the 'pure classical school' and the 'neo-classical school'. But in our context we shall use the term 'classical theory' as Keynes uses it, i.e., the doctrines from Ricardo up to Pigou.

The Classical Background

The fundamental assumption in classical economic theory is full employment of labour and other factors of production. The normal situation in classical economics is stable equilibrium at full employment. When there is unemployment, the situation is not one of equilibrium, and there is a tendency towards full employment and equilibrium. If the disequilibrium persists, it is attributed to interference with the forces of supply and demand in the market. As a general rule, classical theory advocated laissez-faire as a guarantee of full employment. Keynes, on the other hand, takes the normal condition of laissez-faire capitalism to mean a fluctuating level of employment.

By assuming full employment, the classical theory explains the allocation of resources and the distribution of income instead of what determines the volume of employment and income. The forces which determine the allocation of resources and distribution of income are supply and demand. Supply and demand determine the relative values of goods and services, expressed in terms of money as prices. The price mechanism is the 'providential hand' which brings about equilibrium.

Classical economics centres on the use of a given quantity of resources by individual firms and industries within the economic system as a whole. This means that when more resources are employed in one industry or firm they are assumed to be drawn away from other industries or firms. Thus the alternatives opened to labour and other factors of production are employment here and employment there, and not employment and unemployment. Classical theory is a study of alternative uses of economic resources of a given quantity. In the long run there may be increases in output and employment with increases in population, productivity and other resources. In the short run, however, it is assumed that all resources are fully employed. Keynes, on the other hand, deals with changes in output and employment in the

economic system as a result of fluctuations in the quantity of employed resources. The difference between the classical theory and Keynes' theory is this: classical theory deals with a situation in which full employment is assumed while Keynes assumes various levels of employment. Classical theory can only explain unemployment in particular industries or firms, but not in the economic system as a whole; it is a partial theory. Keynesian theory, on the other hand, can explain unemployment in the economic system as a whole and is known as a general theory.

The assumption of full employment in classical theory derives from the assumption that supply creates its own demand. This is known as Say's law of supply and demand. This law means that every producer who brings goods to market does so only in order to exchange them for other goods. In an exchange economy, therefore, whatever is produced represents the demand for another product. A larger supply means a larger demand. The analysis is made in terms of barter but the fact that sales and purchases are made with money is assumed to have no effect on the process. When a resource is put to work a product is produced and income is paid to those who contribute to its production. Each additional worker need not purchase exactly the same product which he himself produces. It merely means that the new income from his employment will create a demand to take off the market an amount of output equivalent to that produced by virtue of his employment. As long as resources are correctly allocated, whatever is produced is able to be sold. Misallocated resources may result in temporary oversupply of some particular items but there can be no general overproduction as long as supply creates its own demand. When there is overproduction in some particular commodity this will be corrected when entrepreneurs shift from the production of things they cannot sell (at a profit) to things which they can sell (at a profit). In other words, Say's law is a denial of overproduction in general, or in Keynesian terms a denial of a deficiency of aggregate demand. Therefore, the employment of more resources will always be profitable in the classical scheme, subject to the limitation that the factors of production are not paid more than the value of their marginal physical productivity. Thus the logical conclusion is that employment will take place up to the point of full employment. Also, there can be no general unemployment if workers are willing to accept what they are worth.

The classical justification of full employment as 'normal' rests on the assumption that income is automatically spent at a rate which will keep all resources employed. However, there is in any economy a certain proportion of income that is saved. Nevertheless, this is no obstacle in classical theory because what each individual saved is assumed to be spent on investment goods. Since saving is just another form of spending according to the classical theory, all income is spent, partly for consumption and partly for investment.

The equality between community saving and community investment in the classical scheme is maintained by the flexibility of interest rates. When savings increases, forces operating through the rate of interest are set in motion to reduce savings and to increase investment until they are equal to each other. The increase in savings will lower the rate of interest and this will lessen the incentive to save while, on the other hand, the lower rate of interest will induce producers to invest to an extent which will absorb the additional savings. Savings is linked to investment by a delicate mechanism, yet one which bears a heavy burden in the adjustments that preserve full employment. When savings increases it follows that consumption decreases since what is saved cannot be consumed. Why is it that investment should increase when savings increases, or when consumption decreases? The classical theory explains this by the presupposition that a decision to consume less at present is linked to a decision to consume more in future. Thus investment is increased when savings increases. The classical theory does not recognize the fact that a fall in consumption may lead to a fall in investment. Nor does the classical theory recognize the possibility of hoarding.

When the classical theory assumes that there is full employment, it actually assumes that there is no involuntary unemployment as distinguished from voluntary and frictional unemployment. Voluntary unemployment exists when workers are unwilling to work for the going wage or slightly less than the going wage. They are voluntarily unemployed in the sense that by accepting a lower wage than they are asking they could find employment. When people refuse to work of their own volition, they should not be regarded as unemployed, and therefore full employment can exist even when some people are volunatrily idle.

Frictional unemployment exists when men are out of work temporarily due to imperfections in the labour market. In a dynamic society in which some industries are declining and others are rising and in which people are free to work wherever they wish, the volume of frictional unemployment may be fairly large at any time. Frictional unemployment may be caused by the immobility of labour, the seasonal changes in work, shortages of materials, breakdowns in machinery and equipment, etcetera. Frictional unemployment is undesirable and every possible step should be taken to minimise it within the limits of occupational choice and freedom to choose. However, it is not a very serious problem because employable persons seeking work will not remain frictionally unemployed for too long a period.

Full employment thus defined is consistent with voluntary unemployment and allows for a certain amount of frictional unemployment. It exists in the absence of involuntary unemployment. In the classical theory this type of involuntary unemployment does not exist. But the undeniable fact is that there is involuntary unemployment even in boom periods. Keynes says, "Men are involuntarily unemployed if, in the event of a small rise in the price of wage-goods relatively to the money-wage, both the aggregate supply of labour willing to work for the current money-wage and the aggregate demand for it at that wage would be greater than the existing volume of employment."[3] In the absence of involuntary unemployment thus defined, there is a state of full employment, both frictional and voluntary unemployment being consistent with full employment. If the classical theory's postulates hold good, involuntary unemployment cannot occur. "Obviously, however, if the classical theory is only applicable to the case of full employment, it is fallacious to apply it to the problems of involuntary unemployment - if there be such a thing (and who will deny it)."[4]

The presence of involuntary unemployment is explained by the classical school as the result of collective action as taken by labour unions and governmental intervention which created an imperfect labour market in which wage rates are

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[3] J.M. Keynes, op. cit., p.15.

[4] J.M. Keynes, op. cit., p.16.

not permitted to fall to their competitive levels according to the forces of supply and demand. Under free competition, wage rates fall under the pressure of unemployment until all who are willing to work can find employment. But there are several factors which weaken the competitiveness of the labour market today, chief among them being collective bargaining by trade unions, minimum-wage laws, unemployment insurance, increased work relief payments, and tacit agreements among workers to demand wages that they and the community consider a reasonable living wage. All these are twentieth-century phenomena and they have resulted in unemployment. Much of this unemployment is not voluntary on the part of the individual since there is relatively not much he can do about the closed shop, minimum-wage laws, or the more-than-competitive wages received by the employed. Some individuals, can, if they want to, find employment by accepting wage reductions refused by others. The conclusion of the classical school is that despite strong group pressures, unemployment is nevertheless voluntary in the sense that acceptance of lower wage rates would create demands for more employment. If wage rates were lowered sufficiently all frictional unemployment would disappear. Thus labour is guilty of a type of group behavior in the form of collective bargaining and otherwise which causes many fellow-workers to suffer unemployment. Unemployment is a choice taken by labour itself. Therefore, since unemployment, apart from frictional unemployment is caused by wages being too high, the remedy for unemployment is lower wages.

Keynes' Objections

One of the main points at issue between Keynes and the classical economists was whether a cut in money wages would increase employment. The reasoning of the classical economists is applicable in a partial analysis, but classical economists often extended their conclusions to the economy as a whole. They suggested that over-production and general unemployment could be met by a general cut in wages. But when there is general unemployment, a general cut in wages cannot be assumed to leave demand unaltered, for part of that demand results from spending out of such wages. It is thus likely that a general cut in wages will merely cause a reduction in demand and will not in itself remove unemployment. It is therefore clear that partial equilibrium analysis is unable to analyse the problem thoroughly, and that some kind of general

equilibrium analysis is needed.

A general equilibrium analysis shows that every part of the economy is connected with every other part of the economy and the repercussions of a change in one part on conditions in another cannot be ignored. Since all the parts of the economy are linked together it is unreasonable, in general equilibrium analysis, to regard the demand for consumption goods and the demand for investment goods as being independent of each other. Since all workers must work in either the consumption goods industry or the investment goods industry, the volume of employment depends on money expenditure on consumption plus money expenditure on investment. If consumption expenditure remains constant while investment expenditure increases, employment will increase. This is because more money will be paid to entrepreneurs making capital goods and they will hire more labour. Similarly, if investment expenditure is constant but consumption expenditure is increased, employment is again increased. Therefore, employment depends on the total demand for consumption goods and investment goods and Keynes calls this total demand the aggregate effective demand.

Furthermore, according to Keynes, consumption demand and investment demand are complementary to each other. This is because when consumption expenditure increases, investment expenditure increases too. When consumers are buying more, entrepreneurs would be willing to undertake to produce more. Similarly, when investment expenditure rises, consumption expenditure will rise also. When there is more investment, more money will be paid out to workers in the investment goods industry, and they will spend this money on the products of the consumption goods industry (although they need not necessarily spend all of it). In classical theory, consumption and investment are rivals. This is because it is thought that the national output is shared out between consumption and investment. Therefore, when one of them rises, the other must necessarily fall. Hence, when wages are cut, it will lead to a fall in total effective demand and is therefore more likely to lead to more unemployment.

There is another objection to a cut in wages in any economy where money is used. In such economies there is often a 'money illusion', that is to say, money is often regarded as having a fixed purchasing power in terms of commodities. It

follows from the existence of the money illusion that even if general unemployment were caused by wages everywhere being too high, the solution would probably be to cut workers' real wages, but not their money-wages. As Keynes says, "Whilst workers will usually resist a reduction of money-wages, it is not their practice to withdraw their labour whenever there is a rise in the price of wage-goods."[5] In Keynes' view, the peculiar characteristics of a developed monetary economy account for unemployment. Even if wage rates were perfectly flexible and commodity prices perfectly competitive, there would still be unemployment. Hence the advice from classical theory of cutting money wages seemed misleading and disastrous. Keynes, however, did not deny the fact that "...with a given organisation, equipment and technique, real wages and the volume of output (and hence of employment) are uniquely correlated, so that, in general, an increase in employment can only occur to the accompaniment of a decline in the rate of real wages."[6] However, the remedy to unemployment is not a cut in money-wages. "...a decline in employment, although necessarily associated with labour's receiving a wage equal in value to a larger quantity of wage-goods, is not necessarily due to labour's demanding a larger quantity of wage-goods; and a willingness on the part of labour to accept lower money-wages is not necessarily a remedy for unemployment."[7] Cutting wages and salaries seemed to Keynes both demoralizing and unsound. Instead he sought a way to prosperity through monetary expansion, public investment, and other forms of governmental action. Keynes wanted governmental action because he saw the need for 'rules of the road' from which all will benefit but without which all people get in each other's way.

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[5] J.M. Keynes, op. cit., p.9.

[6] J.M. Keynes, op. cit., p.17.

[7] J.M. Keynes, op. cit., p.18.

CHAPTER II

THE KEYNESIAN THEORY

In the previous chapter, we saw that Keynes was not satisfied with the classical theory. This has led him to put forward a theory of his own. In this chapter, we shall attempt a brief summary of his concepts. Keynes' book, the General Theory, opens with these words: "I have called this book the General Theory of Employment, Interest and Money, placing the emphasis on the prefix general. The object of such a title is to contrast the character of my arguments and conclusions with those of the classical theory of the subject..."[1] It has to be pointed out that Keynes' theory being a general theory, deals with aggregate analysis. Thus when we refer to any economic terms such as supply and demand, income or employment, in the context of the General Theory, we shall refer to them in the aggregate sense.

The Principle of Effective Demand

According to Keynes, effective demand "is the substance of the General Theory of Employment..."[2] The volume of employment depends on aggregate demand and unemployment results when aggregate demand is deficient. Effective demand manifests itself in the spending of income. As employment increases, income increases. A very important principle is that as income increases, consumption increases, but by a smaller proportion than the increase in income. Therefore, in order to have sufficient demand to sustain a given volume of employment (and hence income), there must be an amount of investment equal to the difference between income and the consumption

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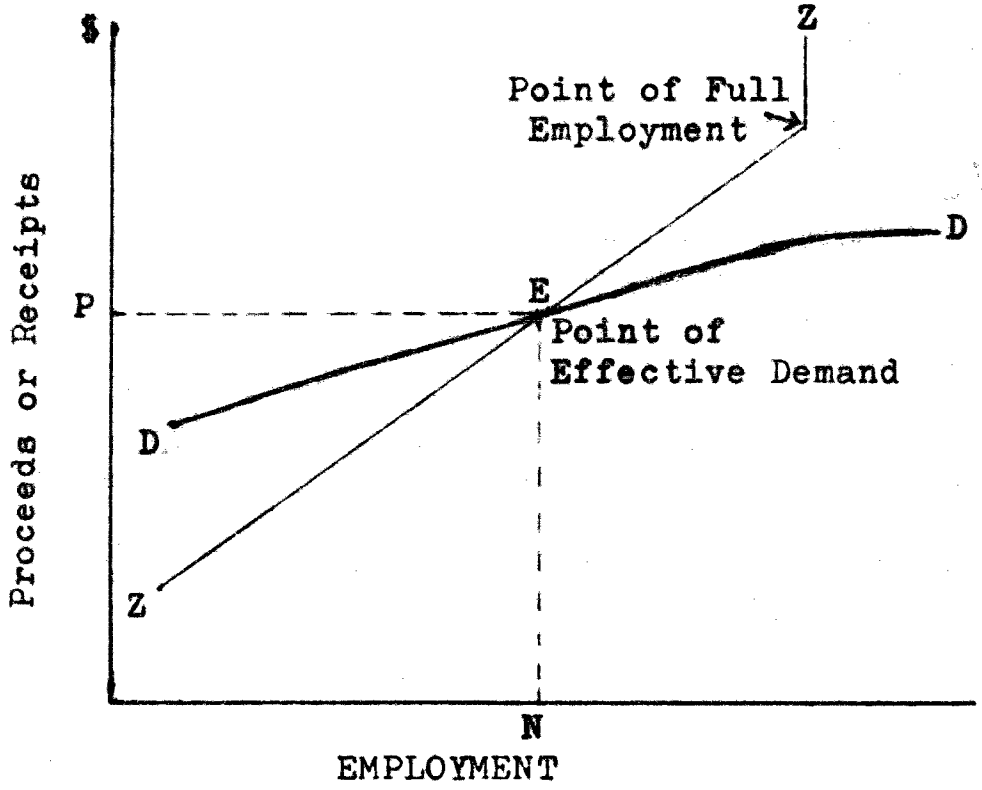
[1] J.M. Keynes, General Theory of Employment, op. cit., p.3.

[2] Ibid., p.25.

expenditure out of that income. In other words, employment cannot increase or be maintained unless investment increases, when consumption expenditure is short of income.



DD - The aggregate demand schedule: The proceeds or receipts (P) expected to be forthcoming for output produced by varying amounts of employment (N).

ZZ - The aggregate supply schedule: The proceeds or receipts (P) which will just induce given amounts of employment (N).

Figure 1. Aggregate Demand and Aggregate Supply.

Keynes defines effective demand as the value of the aggregate demand function at the point where it is intersected by the aggregate supply function.[3] In other words, "the effective demand is simply the aggregate income (or proceeds) which the entrepreneurs expect to receive, inclusive of the incomes which they will hand on to the other factors of production, from the amount of current employment which they

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[3] See J.M. Keynes, General Theory, op. cit., p.25.

decide to give."[4]

In figure 1, the aggregate demand price or proceeds is measured along the vertical axis and the volume of employment along the horizontal axis. This aggregate demand schedule slants up towards the right, indicating that demand increases with employment. This contrasts with the demand curve of an individual firm (in classical theory) which slants downwards to the right, indicating that demand increases as the price falls. Because the total output of an economy cannot be measured by any simple physical unit, Keynes uses the amount of labour employed in producing that output as the measure. The aggregate demand price for the output of any given amount of employment is the total sum of money, or proceeds, which is expected from the sale of the output when that amount of labour is employed. The aggregate demand curve, or the 'aggregate demand function' (represented by DD in figure 1) is a schedule of the proceeds expected from the sale of the output resulting from varying amounts of employment.

In a profit-motivated economy, each entrepreneur will employ that number of workers which will yield him the greatest profit. The total number of men employed in the whole economy is the total or aggregate of those employed by all entrepreneurs. A certain minimum amount of proceeds is required to just induce entrepreneurs to undertake production, and hence, to offer employment. This minimum amount of proceeds or price is known as the supply price or, to be exact, the aggregate supply price. Thus, the aggregate supply curve (ZZ in figure 1) shows the amount of proceeds required to induce entrepreneurs as a whole to offer varying amounts of employments. As the amount of proceeds increases, a greater volume of employment will be offered to workers by employers. Hence, the aggregate supply function slants up toward the right as the amount of employment increases in figure 1, indicating that employment increases as the supply price increases.

There will be some amounts of employment for which the proceeds expected (demand price) will exceed the proceeds necessary to induce entrepreneurs to offer a given amount of

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[4] J.M. Keynes, op. cit., p.55.

employment (supply price) and there will be some amounts of employment for which the proceeds expected fall short of the proceeds necessary to induce that amount of employment. In between, there will be some amount of employment for which the proceeds expected equal the proceeds necessary to make the employment of that amount of labour profitable to entrepreneurs. At this point, the aggregate demand function and the aggregate supply function intersect and the point of intersection is the point of effective demand which determines the volume of employment at any time. In figure 1, the schedule intersect at the point E, corresponding to the amount of proceeds P and the volume of employment N. The point E represents the point of effective demand. At this point, entrepreneurs maximise their profits; it is thus an equilibrium point. If more or less employment were offered profits would be reduced. However, there is no reason to believe that this point will correspond to the level of full employment. "The effective demand associated with full employment is a special case, only realised when the propensity to consume and the inducement to invest stand in a particular relationship to one another. This particular relationship, which corresponds to the assumptions of the classical theory, is in a sense an optimum relationship."[5] However, effective demand will correspond to full employment only if, "by accident of design", the gap between the aggregate supply price corresponding to full employment and the volume of consumption expenditure which consumers as a whole choose to spend out of their income at full employment is filled by investment demand. According to Keynes, the normal investment demand would be insufficient to fill this gap at full employment. Effective demand would thus be deficient and equilibrium is more likely to occur at less than full employment. "For the mere existence of an insufficiency of effective demand may, and often will, bring the increase of employment to a standstill before a level of full employment has been reached."[6] Full employment is important only as a limiting case; when it has been reached, further increases in effective demand do not increase output and employment. In other words, the aggregate supply schedule will become a vertical straight line when full employment is reached.

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[5] J.M. Keynes, op. cit., p.28.

[6] Ibid., pp. 30-1.

If the classical assumption that "supply creates its own demand" were valid, aggregate demand and aggregate supply would be equal at all levels of employment. Classical theory would represent the two schedules as equal; they would lie along the same curve at all levels of employment. Since the expected proceeds would always be adequate to induce more employment, competition among entrepreneurs and labour would lead to an expansion of employment as long as anyone is involuntarily unemployed. However, the classical theory breaks down in attempting to apply Say's law to the demand for investment. Not all of the increase in income resulting from an increase in the volume of employment will be spent on consumption and there is no reason to believe that the difference will be devoted to investment. If investment demand does not increase when income increases, aggregate demand, i.e., the sum total of consumption demand and investment demand, would be less than the aggregate supply at that higher level of income. Income would then fall to a level at which the aggregate supply exceeds the consumption demand by the actual amount of investment.

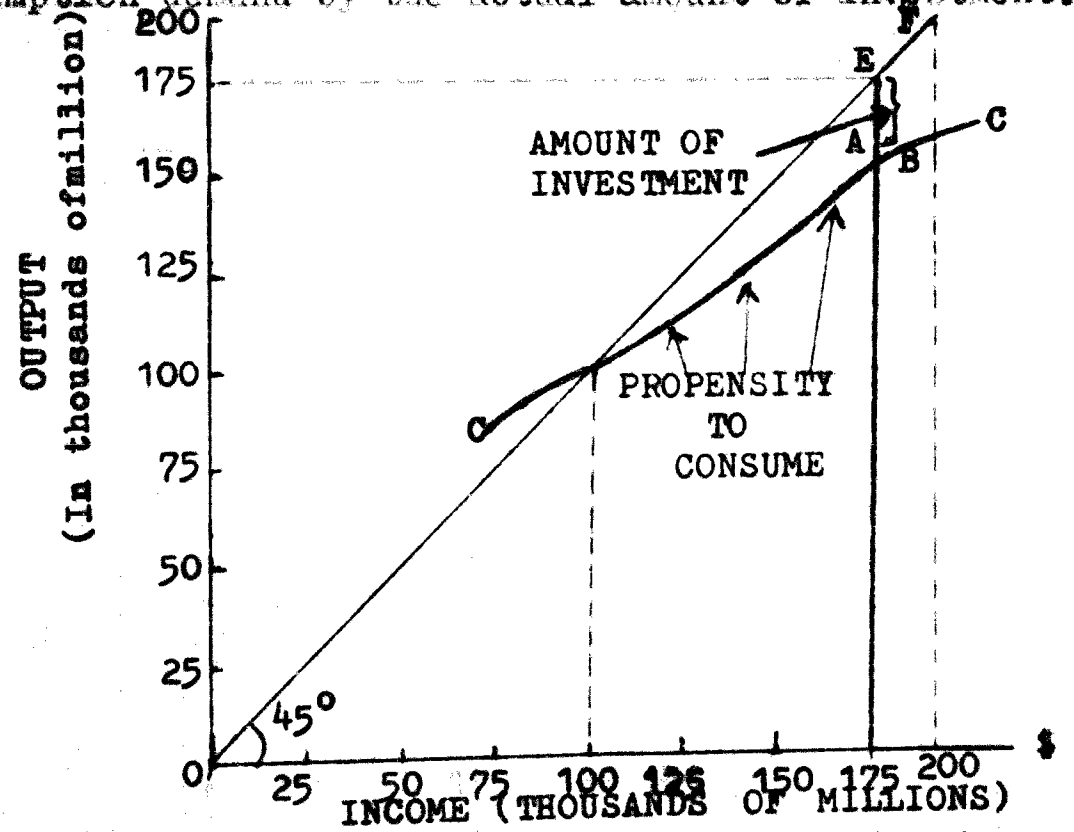

Figure 2. Income, Consumption and Investment. (Adapted from D. Dillard, Economics of J.M. Keynes, London, 1960, p.34.)

In figure 2, the forty-five degree line through the origin shows the output and income of an economy and is known as the output-income line. Thus when the output is 175,000 million dollars, income (money-income as well as real income) is also 175,000 million dollars. This is simply because the national output and the national income are equal. The line CC shows the consumption schedule of the economy and Keynes calls this the propensity to consume. When the national income is 175,000 million dollars, the propensity to consume would be less than 100 per cent and so not all the national income will be spent on consumption. When the national income is 100,000 million dollars, the propensity to consume would be 100 per cent and thus all the income will be spent on consumption. When the national income is less than 100,000 million dollars, consumption expenditure will be greater than income. We can thus conclude that at a certain level of income, consumption will be equal to income, beyond that level of income consumption will be less than income, and below that level of income consumption will exceed income. What is important is the level of income when consumption is less than the national income. This is because unless something is done to bridge the gap between the national income and the consumption expenditure, the national income will fall to the level where income and consumption expenditure will be equal. Under normal conditions, the gap is filled by investment. In figure 2, when income is 175,000 million dollars, consumption is 150,000 million dollars and investment is 25 million dollars. Thus, consumption expenditure (150,000 million) plus investment expenditure (25 million) equals the national income (175,000 million).

The reliance on investment expenditure to fill the gap between income and consumption cannot be counted upon at all times. At (or very near) the level of full employment, the gap may be too wide for it to be filled by investment expenditure. The inducement to invest may not be sufficient enough. When the gap cannot be filled by investment expenditure undertaken by entrepreneurs, it has to be taken by the government. The inducement to private investment may be deficient not only at high levels of employment but also when business expectations are low. The principle that the national income will be maintained at a level where consumption expenditure plus investment expenditure equals the national income rests on the assumption that the propensity to consume

remains more or less stable. When this assumption is maintained, it means that income and employment cannot increase unless investment increases. This explains the importance of the role of government in the Keynesian scheme, which will become clear later.

The Propensity to Consume

Consumption demand depends on two things: the size of the national income and the proportion of the income that is spent on consumers goods. For any level of income, there is a fixed proportion of income that is spent for consumption by the public. Let us suppose that the Malaysian public chooses to spend 400,000 million dollars on consumption when the national income is 500,000 million dollars, then the average propensity to consume is 80 per cent. Some people will spend more than 80 per cent and some people will spend less than 80 per cent of their incomes on consumption but the average will be 80 per cent. Thus the propensity to consume is actually the 'average' propensity to consume. At different levels of income the amount of consumption will change and the proportion of consumption to income will also change. A schedule showing the various amounts of consumption which corresponds to different levels of income is the 'schedule of the propensity to consume' or simply the 'propensity to consume'. It is the functional relationship showing how consumption varies when income changes. It is the relationship between a given level of income and consumption out of that income.

Keynes' assumption that the propensity to consume is relatively stable in the short run is a generalisation about actual experience and is an essential part of the structure of his theory. The actual propensity to consume depends on the established customs of the community, the income distribution, the tax structure, and other factors. A high propensity to consume is a favourable factor because it leaves a considerably narrow gap between income and consumption out of that income to be filled by investment expenditure. If the propensity to consume were 100 per cent for all levels of income, then any level of income could be maintained without any investment being required. Supply would create its own demand and the economy would be travelling along the path to full employment. But the average propensity to consume is less than 100 per cent for all high levels of income and employment. Only if

income falls low enough, will a point be reached where consumption and income are equal. Prof. Hansen calls this level of income the basic national income, which is self-perpetuating. It is a lower limit below which income will not fall, except temporarily. If income falls below this level, the public will 'dig' into its past savings in order to satisfy their consumption demand. Eventually entrepreneurs will expand production to meet with the demand and so employment and income will increase.

A distinction should be made between the average propensity to consume and the marginal propensity to consume. The average propensity to consume is represented by consumption (C) divided by income (Y), i.e., C/Y. For example, when income is 1,000,000 dollars and consumption is 800,000 dollars, then the average propensity to consume is 800,000 divided 1,000,000 or 8/10. This means that 80 per cent of an income of 1,000,000 dollars will be spent on consumption.

The marginal propensity to consume is the ratio of a small change in consumption to a small change in income. It may be written as dC/dY, where d(delta) stands for a small increment. Because consumption increases less than income when income increases, the ratio of a small increase in consumption to a small increase in income is always less than 1. In other words, dY is always greater than dC. For example when consumption increases by 6 (from 800,000 to 800,006) while income increases by 10 (from 1,000,000 to 1,000,010), the marginal propensity to consume is 6/10 or 60 per cent. This is less than the average propensity to consume which is 80 per cent. The marginal propensity to consume is always smaller than the average propensity to consume. The marginal propensity to consume is important because it tells us how the next increment in output will have to be divided between consumption and investment.[7] Furthermore, the marginal propensity to consume is related to the concept of the investment multiplier.

The Investment Multiplier

The propensity to consume tells us that there is a

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[7] See J.M. Keynes, op. cit., p.115.

fairly definite relationship between consumption and incomes at all levels. A definite ratio may be further established between investment and income. This is known as the investment multiplier. Let us suppose that the government spends 1 million dollars on public works. The national income will then increase by 1 million dollars. But this is not the ultimate result. Some of the induced increase in income will be spent on consumption. Assuming a propensity to consume of 80 per cent, then 800,000 dollars will be spent on consumption. This will induce income to increase by another 800,000 dollars. A further 80 per cent of this 800,000 dollars will be spent on consumption inducing an income of 640,000 dollars. The process will go on until eventually income has increased by 5,000,000 dollars as a result of an original increase of 1 million dollars in investment. The 5 million dollar increase is made up of 1 million dollars from the original increase in investment and 4 million dollars from increased consumption as a result of the induced increase in income. This process can be shown in table 1.

When the marginal propensity to consume (m) is 80 per cent, the change in income will be 5 times the change in investment. The multiplier is 5, that is, for every dollar spent on investment, income will increase by 5 dollars. Given the propensity to consume, we can calculate the size of the multiplier. The multiplier is equal to the reciprocal of 1 minus the marginal propensity to consume. In our table the marginal propensity to consume is assumed to be 80 per cent, or 8/10. One minus 8/10 is equal to 2/10, and the multiplier is equal to the reciprocal of 2/10 which is 5. We can also calculate the multiplier in another way. What is not consumed is assumed to be saved. Therefore, 1 minus the marginal propensity to consume (m) is equal to the marginal propensity to save (s). We can therefore, state the multiplier as the reciprocal of the marginal propensity to save. When m equals 8/10, s equals 2/10. The reciprocal of 2/10 is 5. Therefore, we can write the multiplier in two forms:

$k = \frac{1}{1 - m}$ or $\frac{1}{s}$ where k represents the multiplier; m the marginal propensity to consume and s the marginal propensity to save.

The size of the multiplier varies directly with the size of the propensity to consume. When the marginal propen-

sity to consume is high, the multiplier is large. For example, when the marginal propensity to consume is 80 per cent the multiplier is 5. If the marginal propensity to consume were to be 90 per cent, the multiplier would be 10 (the reciprocal of 1-9/10).

TABLE 1

EFFECT OF INCREASED INVESTMENT ON

INCOME, CONSUMPTION, AND SAVING[a]

	Original Increase in Investment ΔI	Induced Increase in Income ΔY	Additional Consumption from Increased Income (8/10 of ΔY)	Saving out of Income
	$1,000,000	$1,000,000	$ 800,000	$ 200,000
		800,000	640,000	160,000
		640,000	512,000	128,000
		512,000	409,600	102,400
		409,600	327,680	81,920
		327,680	262,144	65,536
		262,144	209,715	52,429
		209,715	167,772	41,943
		167,772	134,218	33,554
		134,218	107,375	26,843
		107,375		
		etc.	etc.	etc.
Totals	$1,000,000 Investment	$5,000,000 Income	$4,000,000 Consumption	$1,000,000 Saving

[a] Adapted from D. Dillard, op. cit., p.90.

Theoretically, the size of the multiplier can vary from 1 (when m = 0) to infinity (when m = 100). However, normally the multiplier will not fall to 1 because consumption increases when income increases so that m is always greater than zero.

Nor will its value be equal to infinity because normally when income increases, consumption increases but less than the increase in income so that the m is always less than 1. The actual value of m is never likely to fall outside the range from 1/3 to 1/10, and so the multiplier will lie somewhere between the range of 1.5 to 10. Keynes himself estimates the actual value of the multiplier to be about 3, with variations in different phases of the business cycle. He says, "In actual fact the marginal propensity to consume seems to lie somewhere between these two extremes (i.e., 0 and 1) though much nearer to unity than to zero; with the result that we have, in a sense, the worst of both worlds, fluctuations in employment being considerable and, at the same time, the increment in investment required to produce full employment being too great to be easily handled."[8] Any new investment will increase income by more than the amount of the investment, but a small increase in investment will not be sufficient to lift the economy from a low level of employment to full employment.

Inducement to Invest

Investment means producing more than is currently consumed. Although investment sometimes takes the form of buying existing plants and equipments, only the production of new plants and equipment is important in Keynes' theory. This is because the purchase of existing plant and equipment will not result in the creation of additional income but merely in the transfer of part of the existing income from the buyer to the seller.

The inducement to invest arises from the expectations of businessmen that such investment will be profitable. These expectations are based on precarious estimates of the future and so the volume of investment fluctuates widely. Businessmen will invest up to the point where the expectation from new investment is equal to the cost of investment. Businessmen usually borrow money to finance their investments. Thus, in Keynes' analysis, the inducement to invest is determined by the rate of interest in relation to the profitability of investment. The profitability of investment which is

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[8] J.M. Keynes, op. cit., p.118.

actually the 'expected' profitability is called the marginal efficiency of capital.

The Marginal Efficiency of Capital

The marginal efficiency of capital-assets of a particular type is the highest rate of return over cost expected from producing one more unit of that particular type of capital-asset. The marginal efficiency of capital in general is the highest rate of return which can be secured from any type of capital investment. Investment will continue as long as the marginal efficiency of capital exceeds the rate of interest; the equilibrium position will be the point where the marginal efficiency of capital and the rate of interest are equal. For example, let us suppose that a store building can be built for $20,000 and will yield a rental of $1,200 per annum and has depreciation and maintenance of $200 per annum, giving a net return of $1,000 per annum. If the rate of interest is 4 per cent, it will cost $25,000 to purchase a similar building, i.e., the similar building will be worth $25,000 when it is completed. However, if the money can be borrowed to build the building, the owners will receive a net return of $1,000 per annum which is 5 per cent of the cost of the building. Interest to be paid on the money borrowed to finance the building of the store is 4 per cent. Therefore, it is profitable to borrow the money to build the store. If the rate of return is 4 per cent, it would just induce investors to borrow the money to build the store; if the rate of return is below 4 per cent, the store will not be built because it will not be profitable to borrow the money to build it.

The marginal efficiency of capital depends on two factors: (i) the expected yields or returns from an income-yielding asset, and (ii) the supply price of the asset which is the source of the prospective yields. The prospective yield is what a firm expects to obtain from the sale of the output of its capital-assets. These yields take the form of a flow of money returns over a period of years. We may refer to these annual returns as annuities represented by $Q_1, Q_2, \ldots Q_n$. If we estimate the values of the Q's or the total returns expected during the life of the asset and if we know the cost of such assets, then a comparison of the expected returns with the asset's cost gives the rate or ratio known as the marginal efficiency

of capital. Keynes defines the marginal efficiency of capital thus: "More precisely, I define the marginal efficiency of capital as being equal to that rate of discount which would make the present value of the series of annuities given by the returns expected from the capital-asset during its life just equal to its supply price."[9] Professor Dillard has expressed this definition in the form of an equation:[10]

Supply Price = Discounted Prospective Yields

or, Supply Price = $\frac{Q_1}{(1+r_m)} + \frac{Q_2}{(1+r_m)^2} + \frac{Q_3}{(1+r_m)^3} + \cdots \frac{Q_n}{(1+r_m)^n}$

The Q's are the prospective yields in the various years 1,2,3, and n; r_m is the marginal efficiency of capital, or the rate of discount. The annual returns need not be the same for each year, and in a dynamic setting they are assumed to be different; only by the rarest coincident would any of them turn out to be the same. There will be some particular value of the marginal efficiency of capital which will bring the two sides of the equation into equality. No matter what the number of the annuities is, the present value of each would be discounted in the same way to bring the aggregate of all the annuities into equality with the current supply price of their source.

Because of fluctuations in the yield of capital assets, investors are very cautious about investments that require a long period of 'waiting' before they can prove to be profitable. The longer the period of waiting, the greater the chances that unforeseen circumstances may intervene to affect the expectations of investors.

The marginal efficiency of capital is characterised by short-term instability and long-term decline. In the short-run, the marginal efficiency of capital is fluctuating because of the dynamic setting of the real world. In the long-run it tends to decline because if it is higher than the rate of interest more investment will be undertaken. As more and more investment is undertaken, the marginal efficiency will be bound to decline due to the law of diminishing returns. When

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[9] J.M. Keynes, op. cit., p.135.

[10] D. Dillard, op. cit., p.136.

the marginal efficiency of capital declines, investment will fall and this may result in a fall in income. The fall in the marginal efficiency of capital may be offset by a corresponding fall in the rate of interest. If this happens, investment may not fall but this is only a temporary situation. At any rate, the rate of interest is assumed by Keynes to be more or less stable and resistant to reductions in the long run. Thus, "The schedule of the marginal efficiency of capital is of fundamental importance because it is mainly through this factor (much more than through the rate of interest) that the expectation of the future influences the present."[11]

The Rate of Interest

According to Keynes, the rate of interest is affected by two things, (i) the state of liquidity preference and (ii) the quantity of money available to the public.[12] Liquidity preference is the desire of the public to hold ready cash. The quantity of money refers to all the coins, paper money and bank deposits in the hands of the public.

"Liquidity-preference is a potentiality or functional tendency, which fixes the quantity of money which the public will hold when the rate of interest is given; so that if r is the rate of interest, M the quantity of money and L the function of liquidity-preference, we have M = L(r)."[13] There are three reasons for people's desire to hold their assets in the form of cash. Keynes classifies them as (i) the transactions motive, (ii) the precautionary motive and (iii) the speculative motive. Of these three motives, the third is the important one because of "...a necessary condition failing which the existence of a liquidity-preference for money as a means of holding wealth could not exist."[14] The condition is the element of uncertainty as to the future of

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[11] J.M. Keynes, op. cit., p.145.

[12] Ibid., pp.167-8.

[13] Ibid., p.168.

[14] Ibid., p.168.

the rate of interest. This is because if there is uncertainty with regards to future rates of interest and if it is positive it would be more profitable to purchase a debt than to hold money as a store of value.

The proportion of money held under the first motive is done so in order to meet everyday expenditures such as buying food, clothing, etc., paying rent, wages, etc. The volume of money required to satisfy this motive is quite definite for any given level of income and prices. As the level of income rises, a larger volume of money will be held because consumption will increase. Similarly, when the general price level rises, a larger volume of money will be held because it would require a larger volume of money-income to purchase the same amount of commodities as before. Money held under the second motive arises from the desire to be able to meet unforeseen emergencies such as illness or accidents. The volume held is also relatively stable.

The third and important motive, the speculative motive, is defined as "...the object of securing profit from knowing better than the market what the future will bring forth."[15] Some people hold money because they expect its value to increase in the future so that they can buy assets on better terms in the future. This preference to hold money is greatly influenced by the rate of interest. When the rate of interest is low there is a greater desire to hold money than other less liquid assets such as bonds. This is due to two reasons. Firstly, when the rate of interest is low there is more likelihood that it will take a turn and rise in the future. Secondly, if it does not rise as anticipated, the interest foregone is very little and the loss to the speculator who holds cash instead of bonds will not be great. The volume of money held under this motive is very unstable and unpredictable because it depends on expectations about the rate of interest in the future. The rate of interest will rise and fall according to the demand for money under the speculative motive. When the demand for money under this motive rises the rate of interest will rise, and when the volume of money demanded falls the rate of interest will fall. The rate of interest depends on factors which are psychological in nature.

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[15] Ibid., p.170.

When liquidity-preference for money increases, the rate of interest has to rise in order to induce people to part with liquidity. Interest is the reward for parting with liquidity, and if it is high enough, people will risk giving up some of their liquid cash. "Thus the rate of interest at any time, being the reward for parting with liquidity, is a measure of the unwillingness of those who possess money to part with their liquid control over it. The rate of interest is not the 'price' which brings into equilibrium the demand for resources to invest with the readiness to abstain from present consumption. It is the 'price' which equilibrates the desire to hold wealth in the form of cash with the available quantity of cash; - which implies that if the rate of interest were lower, i.e., if the reward for parting with cash were diminished, the aggregate amount of cash which the public would wish to hold would exceed the available supply, and that if the rate of interest were raised, there would be a surplus of cash which no one would be willing to hold."[16]

The rate of interest fluctuates with the demand and supply of money. The supply of money is fixed by the banking system. Because the supply of money is fixed by the banking system, the rate of interest is largely influenced by the demand for money. The demand for money derives from liquidity preference of the public. The lower the rate of interest, the greater will be the liquidity-preference and hence, the demand for money; the reverse is also true. Therefore, in order to equilibrate "the desire to hold wealth in the form of cash with the available quantity of cash", the rate of interest must neither be too high nor too low. If the rate of interest is too high the supply will be greater than the demand; if it is too low the demand would be greater than the supply.

Only the banking system can control the supply of money. If the public desires to hold more cash, it must bid up the price of money, i.e., the rate of interest. Because of its ability to change the supply of money, the banking system is in a strategic position in relation to the rate of interest. It is very important in Keynes' policy that the monetary authority should be in a strong position and be able to pursue a flexible monetary policy, because then it can to a certain

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[16] Ibid., p.167.

extent control the rate of interest. For instance, during a depression, an easy money policy can lower the rate of interest and keep it low. This may encourage investment since the rate of interest is one of the determinants of the inducement to invest. But the rate of interest, by itself, will not influence investment to a very great extent. The more important determinant of investment is the marginal efficiency of capital which depends on expectations of investors. But, "...the rate of interest on money plays a peculiar part in setting a limit to the level of employment, since it sets a standard to which the marginal efficiency of a capital-asset must attain if it is to be newly produced."[17] The rate of interest may, in a sense, be regarded as the passive determinant while the marginal efficiency of capital is the active determinant of the inducement to invest.

In the Keynesian scheme, the volume of employment and income depends on the aggregate effective demand. This demand is made up of consumption demand and investment demand. The consumption demand is more or less stable and predictable. So, the more important determinant of aggregate demand, and, hence, employment and income is investment demand. When investment is increased income (and employment) will increase by a certain multiple of the increase in investment; the multiplier being the reciprocal of 1 minus the marginal propensity to consume or the reciprocal of the marginal propensity to save. The inducement to invest is determined by the rate of interest and the marginal efficiency of capital. The rate of interest is more or less stable or 'sticky'. Thus fluctuations in investment are largely due to the fluctuations in the marginal efficiency of capital. The marginal efficiency of capital fluctuates because it is determined by the supply price of capital assets and the expectations of investors. In a dynamic setting fluctuations in expectations of investors are very common. Thus investment fluctuates widely. When fluctuations in investment occur, there are fluctuations in employment and income. This is roughly the outline of the analysis of the General Theory.

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[17] Ibid., p.222.

CHAPTER III

FISCAL POLICY IN DEPRESSION I

A THEORETICAL APPROACH

In this chapter, we shall discuss the theoretical aspect of fiscal policy as it is suggested by the Keynesian analysis. The practical examples of the implementation of Keynes' recommendations for public spending as an income-generator and the problems encountered in practice will be left for the next chapter. Fiscal policy in the Keynesian scheme is a very important tool to remedy unemployment and a fall in the national income. Fiscal policy is, in a broad sense, the utilisation of government spending, taxing and borrowing powers as a control of economic stability; in other words it is a contracyclical measure. The aim of fiscal policy is full employment without inflation.

We have seen in Chapter II that in Keynes' General Theory, the important factor which determines the level of employment and income is aggregate effective demand, which is made up of consumption demand and investment demand. Consumption demand and investment demand are in turn made up of private consumption and investment plus public consumption and investment. Income is equal to consumption output plus investment output. Also important in the Keynesian scheme is the fact that above a minimal level of national income, consumption expenditure is always less than income. The gap between a particular level of income and consumption expenditure at that level of income will have to be filled by investment expenditure if that particular level of income is hoped to be maintained. The higher the level of income, the greater is the gap. Therefore, Keynes thought that at high levels of income private investment is not sufficient to fill this gap. Hence the government has to do something if it hopes to maintain the high level of income. Similarly, during a depression, when the inducement to private investment is falling the

government should intervene so that the economy can prosper. There are two courses opened to the government in such a situation. Firstly, the government can undertake investment expenditure of its own in order to fill the gap between demand and income which is still left after private investment and consumption expenditures have been made. Secondly, the government can adopt a policy which will increase the demand for consumption output and thus narrowing the gap between consumption and income at a particular level of income so that less investment expenditure is needed to maintain that level of income (and employment). Keynes recommended the first course of action as a surer way to prosperity. This is because when the government undertakes investment it will be creating employment so that income will increase. When income increases, consumption will increase too. On the other hand, when consumption is increased through government policy investment need not necessarily increase if the increase in consumption demand can be satisfied by existing productive capacity.

Keynes recommended increased public investment as a generator of employment and income, particularly during a depression, because of two reasons: (a) his theory of aggregate effective demand and (b) his concept of the investment multiplier. The term 'public investment' in this context refers to any autonomous increase in government outlay and includes subsidies and grants for relief as well as public works of the more durable type. It appears that Keynes himself thought that public work programmes are a more important income-generator than subsidies and relief payments. When public investment expenditures are intended as an income-generator, there are two questions which have to be answered: (a) is government expenditure justified in terms of good economy? and (b) is it effective in generating employment and income? The answer to the first question is relative; it is a case of 'sound finance' versus 'functional finance'. As for the second question, it is answered by the concept of the multiplier.

Sound Finance and Functional Finance

Sound finance calls for a balanced budget. This means that when the income is low the government will have to curb its expenditure because government revenue would be small. This is contrary to Keynes' view which is in fact

functional in nature. Functional finance is concerned with economic stability, i.e., the prevention of depression and inflation, rather than budgetary stability. Functional finance would result in increased government expenditure in a depression in order to lift the economy back to its former level of employment and income. This is what Keynes recommended.

There are economists, however, who believed that government should not participate in economic affairs. This group of thinkers assumed that the national income will be maximised when business profits are maximised. Since the rational behavior of every entrepreneur is to maximise profits, the national income will be maximised without government intervention. The national income is the criterion of social welfare. But the profits of businessmen are only a small part of the national income. Therefore, it is not correct to assume that the national income or social welfare is maximised when business profits are maximised. The motivation to production is the expectation of profit. Businessmen will not undertake the production of goods unless the incentive (expectation of profits) is there. They control the means of production to which the labour of a community must be applied to produce the goods and services which contribute to social welfare. When they restrict production, they do so for their own interests rather than the community's interests. They are not concerned with the fact that the national income in real terms will be smaller when they restrict output and that unemployment will occur. The individual firms which reduce the number of their workers reduce their cost of production more than their revenue since labour is a variable cost that ceases when employment ceases. But to society as a whole labour is a fixed or overhead cost. A worker must eat whether he is employed or not. We can of course allow an unemployed person and his family to starve until he can find employment. But the advocates of sound finance advocated supporting the unemployed on relief where they produce nothing and remained unemployed. But it would appear to be better to give them some useful employment, for example, in a public works programme, where they will add directly to the national capital assets. When there is widespread unemployment, the opportunity cost of hiring an unemployed person is nothing since nothing is sacrificed due to his employment. In the classical theory of full employment, when we hire a man there is always an opportunity cost (or

economic cost) since it is assumed that he would have to be taken away from some other industry. This is why some economists advocated sound finance, but when there are idle resources there is no opportunity cost when an unemployed person is given employment.

Public works expenditure is more desirable during a depression because it creates employment for idle resources and raises the national income to a higher level. Even if there is no investment multiplier at work, it would be desirable. However, the concept of the multiplier reinforces the argument for public works expenditure as an expansionary force. Subsidies and relief payments will increase the volume of consumption but it need not necessarily create employment for idle resources. It may only result in the gap between consumption at a certain level of income and that certain level of income being narrower.

Public Investment and the Multiplier

The multiplier theory does not mean that a temporary increase in investment expenditure will have a lasting effect of increasing employment and the national income. What it means is that the income-generating powers will work only as long as the new expenditure is taking place. Keynes' assumption is that the economy requires a certain amount of successive investment expenditure to raise it to the level of high employment or full employment. There is, of course, some time lags between successive spendings by the government and respendings by the public out of the induced increases in income. However, Keynes in his theory on the multiplier abstracts from time lags. He assumed that the changes in income takes place cumulatively and simultaneously with the changes in new government investment expenditure. However, the important thing to remember is that if full employment is to be achieved, there must be a series of new increases in government expenditure. Another hazard is that the higher the level of income and employment, the less effective will be the income-generating powers of increased new public investment expenditure. This is because as the national income rises, the marginal propensity to consume decreases, and so the multiplier decreases also.

Government investment expenditure unlike private expenditure, does not depend on the size of the individual's

income but results from autonomous decisions. When the decisions have been made, the government can raise the revenue from taxation. However, we have to bear in mind that the decisions regarding the amount of expenditure and the sum of revenue to collect by taxation are taken independently of each other. Because of this the funds allocated for public expenditure and the revenue expected from taxation need not always be equal. If expenditure exceeds revenue then there is a deficit in the government budget and the government will have to resort to borrowing to make good the deficit. When the government borrows in order to finance its investment projects it is more effective as an income-generator than expenditure financed by taxation. We shall see more of this later. When income increases as a result of increased government expenditure, savings rises automatically with it and public expenditure offsets this savings. In other words, ex-post public expenditure equals ex-post savings out of the induced increase in income as a result of an increase in public investment. Public investment of this nature makes use of money that is idle or even non-existent. And according to the assumptions made about the multiplier, the poorer the community or the lower the national income, the greater will be the marginal propensity to consume and also the multiplier. "Thus public works even of doubtful utility may pay for themselves over and over again at a time of severe unemployment, if only from the diminished cost of relief expenditure, provided that we can assume that a smaller proportion of income is saved when unemployment is greater; but they may become a doubtful proposition as a state of full employment is approached."[1]

It must be pointed out, however, that an increase in public investment may have an adverse as well as a favourable effect on total investment, i.e., public investment plus private investment. The effect on total investment will depend on the effect of any public investment on private investment. The net effect of any public programmes is thus hard to predict. It depends on the extent to which private investment is encouraged or discouraged by an increase in public investment. But for our present purposes of explaining the working of the multiplier principle, we can assume that increased public investment expenditure, by increasing

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[1] J.M. Keynes, op. cit., p.127.

employment and income, will lead to increased consumption, thus giving rise to more optimism in business activities and hence stimulating private investment. In any event, the assumption seems to be a plausible one. But whether public investment leads to an increase or decrease in private investment, it has nothing to do with the multiplier concept as such; it merely affects the value of the multiplicand. If public investment leads to a decrease in private investment, then the multiplicand (change in total investment) will be smaller than what it ought to be after public investment has been increased. Hence, the increase in income will be smaller than what it would have been if private investment had not declined. But this is not the result of the multiplier being smaller; it is the result of the multiplicand being smaller. For example, let us assume that the Malaysian government decides to undertake new expenditure of $1 million. Let us also assume the multiplier is 5. If the government expenditure does not have any effect on private investment, then the increase in total investment will be $1 million, giving us an increase in income of $5 million (the multiplicand $1 million multiplied by the multiplier 5). Now let us assume that the increase in public investment resulted in a decrease in private investment of $¼ million, then the change in total investment is only $¾ million, i.e., $1 million minus $¼ million. Therefore, the change in income will be the multiplier 5 times the multiplicand $¾ million, giving us an increase in income of $3¾ million. In the second instance, the increase in income is $1¼ million less than in the first instance. This is the result of the multiplicand being smaller by $¼ million and not the result of the multiplier being smaller because the multiplier, 5 is a constant in both cases. On the other hand, if private investment were to increase by $¼ million following an increase of $1 million in public investment, then the multiplicand (change in total investment) will be $1¼ million, i.e., the increase in public investment of $1 million plus the increase in private investment of $¼ million. The change in income then will be $1¼ million multiplied by 5, i.e., $6¼ million. Hence, if public investment encourages private investment, then the change in induced income will be greater because the multiplicand will be larger.

Methods of Financing

There is a difference between government expenditure

multiplier and the full value of the multiplier. For example, Keynes estimates that in the United States in depression the marginal propensity to consume is about 80 per cent, and hence the multiplier is 5, but the actual increase in national income (and employment) is more nearly 2 or 3 times the amount of public expenditure. He says,

> "Mr. Kahn has examined the probable quantitative result of such factors as these in certain hypothetical special cases. But, clearly, it is not possible to carry any generalisation very far. One can only say, for example, that a typical modern community would probably tend to consume not much less than 60 per cent of any increment of real income, if it were a closed system with the consumption of the unemployed paid for by transfers from the consumption of other consumers, so that the multiplier after allowing for offsets would not be much less than 5. In a country, however, where foreign trade accounts for, say 20 per cent. of consumption and where the unemployed receive out of loans or their equivalent up to, say, 50 per cent. of their normal consumption when in work, the multiplier may fall as low as 2 or 3 times the employment provided by a specific new investment. Thus a given fluctuation of investment will be associated with a much less violent fluctuation of employment in a country in which foreign trade plays a large part and unemployment relief is financed on a larger scale out of borrowing (as was the case, e.g., in Great Britain in 1931), than in a country in which these factors are less important (as in the United States in 1932)."[2]

This passage throws light on the fact that foreign trade and the method of financing influence the size of the multiplier. In this section we will discuss the method of financing. The influence of foreign trade will be left for a later part of the exercise.

Before we discuss the method of finance, let us see

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[2] Ibid., pp.121-2.

what Keynes has to say about the multiplier in the United States during the depression. He says, "If single years are taken in isolation, the results look rather wild. But if they are grouped in pairs, the multiplier seems to have been less than 3 and probably fairly stable in the neighbourhood of 2.5. This suggests a marginal propensity to consume not exceeding 60 to 70 per cent. - a figure quite plausible for the boom, but surprisingly, and, in my judgement, improbably low for the slump. It is quite possible, however, that the extreme financial conservatism of corporate finance in the United States, even during the slump may account for it...I suspect that this factor may have played a significant part in aggravating the degree of the recent slump in the United States. On the other hand, it is possible that the statistics somewhat overstate the decline in investment,...a moderate change in these estimates being capable of making a substantial difference to the multiplier."[3]

If investment is to generate income they must be 'new' investment and not a substitution of one type of investment for another. To illustrate the point let us suppose that our government is paying unemployed Malaysians a compensation of $50 per month in the form of relief payment. If as a result of a change in government policy the unemployed are given employment in public works programmes and receive $100 per month in the form of wages, the net increase in their income is only $50 and not $100 per month. This is because even without employment they were already receiving $50 in the form of relief payment. This means that if the actual value of the multiplier is 5, and if as a result of increased public works expenditure income has risen to $100 per month for the newly-employed persons, the value of the public investment multiplier is only 2.5 or half of the value of the actual multiplier. This is because the increase in income of the newly-employed persons is only actually $50 and not $100.

Furthermore, the over-all economic effect depends on how the government financed its former relief programme and its present public works programme. Public works programmes will be most effective as an income-generator when they are financed by loans and when they replace public relief

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[3] Ibid., p.128.

programmes financed from taxation. If both public works and relief programmes are financed by borrowing the economic effect will be less. When both the present public works programme and the former relief programme are financed from taxation, there would be the least stimulation to income increases. When taxation is used to finance government expenditure it is merely a substitution of government expenditure for private expenditure. If this method of finance is used, it will mean that when government expenditure increases, revenue from taxation will have to increase. When government increases its revenue from taxation, private disposable income will decrease and thus private expenditure will decrease. Hence, when public expenditure is financed from taxation, it is a rival of private expenditure, i.e., when one increases the other must fall.

The expenditure of funds raised by borrowing represents mainly new expenditure and therefore an addition to total effective demand. Hence, a public works programme would have a more significant expansionary effect if it is financed by borrowing, especially if it replaces a relief programme financed from taxation. This is because the public work expenditure will be 'new' expenditure and will create additional effective demand. For example, suppose the government used to spend $500,000 on relief and financed this from taxation. This means that private disposable income is smaller by $500,000 which is paid to the government in taxes. Hence, a government expenditure of $500,000 is offset by a decrease in private purchasing power of the same amount. Let us assume next that the government decides to undertake public work project financed by loans to create employment, instead of giving relief. This will mean that the government need not have to raise $500,000 from taxation and so private disposable income will increase by $500,000. Hence, whatever the government spends on public works will represent a net increase in expenditure and not merely a substitution of one form of expenditure for another within the economic system as a whole. Suppose the government decides to spend $1,000,000 on public works paying it out to newly-employed persons in the form of wages. The net increase in income of the newly-employed persons will be $500,000 as a whole (they were formerly receiving $500,000 in the form of relief). But because of the reduction in taxation, private disposable income will increase by $500,000. As a result, the net 'total' increase in purchasing power will be

equal to $1,000,000. On the other hand, if both the former relief programme and the present public work programme which replaces it are financed by borrowing, then the expansionary powers of the public work programme will not be so great. This is because the net increase in new total expenditure will only be equal to the expenditure on public works minus the expenditure on the former relief programme. This is smaller than in the first instance. The change in income will be equal to the net increase in expenditure multiplied by the multiplier. Let us assume a multiplier of 5. In the first case, the increase in income will be equal to $5,000,000 ($1,000,000 x 5). In the second case income will only increase by $2,500,000 ($500,000 x 5).

When the government borrows to finance its expenditure it is known as 'deficit financing', i.e., the government spends more than it taxes, leaving an unbalanced budget to be corrected by loans. The advocates of sound finance believed that deficit financing will bankrupt the government. This is because they analyse government expenditure in terms of private individual expenditure. When an individual borrows for his expenditure on consumption, there is no favourable effect on his future income. If he continues borrowing he will become a bankrupt. But government expenditure, according to Keynes, creates income. When the government spends more than what it collects in taxes, there is a net increase in the money supply, i.e., the means of purchase increases. This will increase effective demand which in turn will lead to more employment and a larger national income. Effective demand will increase by at least the amount of the new expenditure, i.e., the excess of government expenditure over the government revenue from taxes. According to Keynes, when income increases, savings will also increase by an amount which is equal to the additional expenditure which stimulates the change in income. In other words, ex-post savings and ex-post investment will be equal. Hence, if a government borrows to finance its public works projects which stimulate income, the saving out of the induced increase in income will be equal to the sum borrowed by the government to finance the public works. For example, if our government borrows $1 million to finance public works in Malaya and if the government expenditure multiplier is 3, then income will increase by $3 million. Out of this $3 million, $2 million will be used for consumption and $1 million will be saved. This $1 million can either be used to pay of the

government's debt or it can be used for more public works projects which will stimulate employment and income further. Therefore, deficit-financing of income-generating expenditure of the government is justified and there is no need to stick to the rules of sound finance. In fact, as we have seen earlier, a public project financed by loans will be more stimulating to the expansion of income than a project which is financed from taxation.

Sources of Government Loans

When a public work project is financed by a loan it is more stimulating than a project financed from taxation. However, the source of the loan will also affect the effectiveness of the expenditure as an income-generator.

a) Loans from Banks are more stimulating than loans from the public. This is because bank loans result in the creation of new money with the result that the supply of money will increase. When the loan is made by creating an additional supply of money, no one has to restrict his consumption or investment, i.e., private expenditure remains unaffected. When the government borrows from the banking system, it merely means that the banks buy government bonds with new money created in the form of check-book money, i.e., the government is credited with a sum of money that is equivalent to the value of the bonds it sells to the banking system. There is no transfer of purchasing power by any one party for the expenditure of the government; instead there is the creation of additional purchasing power. During a depression the government will not find it difficult to borrow from banks because private investment will be falling and so there would be less demand for loans by the public and also because the banks will be exercising more discretion in making loans to private investors. But the banks are willing to lend to the government even though the rate of interest paid by the government is lower than the rate paid by private individuals. This is because there is security when they lend to the government (unless the government is not a stable one). The purchase of bonds by the banks is subject to the qualification that the rate of interest will not rise in the calculable future. This is because when the rate of interest rises, the price of bonds will fall, causing the market value of bonds purchased when rates of interest are low, to fall.

b) Loans from the Public do not result in any creation of new money. What happens is that some purchasing power is transfered from private individuals to the government for its expenditure. Hence the expansionary powers of an expenditure financed by loans from the public will not be as great as the powers of an expenditure financed by loans from the banking system. This is because when individuals lend to the government, their disposable income for their own private expenditure will fall. But if we assume that only individuals who have a surplus income over their own private expenditures will purchase government bonds, then it is likely that private expenditure will not fall. If the individuals hoard their savings and do not lend to private investors because they feel that it is not secure but are willing to lend to the government, then the government can put the idle portion of the existing supply of money into circulation again by borrowing from the public and using the loan to finance its public works projects. In this way, the government can increase the supply of money in circulation and so induce employment and income to increase. This type of borrowing is sometimes known as 'tapping the savings stream'. However, with Keynes' assumption about the marginal propensity to consume, borrowing from the public during a depression is not advisable. This is because when income is low the marginal propensity to consume will be high. In other words, a large proportion of income will be used for consumption and therefore when the government borrows from the public, private consumption will fall. This is especially true if the government does not discriminate the groups from which it borrows. Generally speaking, the lower down the income scale the government succeeds in placing securities, the more likely it is that the purchase of securities will replace spending. Hence if the individuals in the lower income groups were to purchase government securities, the result is to aggravate the deflationary situation. But as income increases government borrowing from the public becomes more and more desirable, especially if it affects the distribution of income in such a way as to check the expenditure on consumption goods when an inflation is threatening. This will be discussed later.

c) Foreign Loans can also be made used of to finance government expenditure. Such loans can be secured from foreign countries and the International Bank, for example. From the economic point of view this type of loan is desirable because

it will have greater expansionary effects than expenditures financed by taxation. Therefore, if we can generate income with public expenditures, then we can borrow from abroad and pay off the debt with the savings out of the induced increase in income. But loans from foreign countries are not easy to secure and there are very often political and economic strings attached to the loans. Besides, in the present age of nationalism loans from foreign capitalist countries may be resented.

Tax Policies

We have seen earlier that when government expenditure is financed from taxation it is least effective as an income-generator. However, if the government has to finance its expenditure from taxation as a last resort, its tax policy will affect the consumption pattern and thus employment and the national income.

During a depression the tax structure should be such that the incidence falls more heavily on the higher income groups than the lower income groups. In other words, the tax rates should be progressive. That is to say, the proportion of income taxed increases with the income. The higher the income, the bigger should be the taxed proportion. This is different from proportional taxation or a 'flat rate' tax which would mean that whatever the level of income a certain proportion of it will be taxed. However, the rates of taxation, whether it is progressive taxation or proportionate taxation, need not be fixed. In fact, the rates should be flexible so that during a depression they can be lowered and during an inflation they can be raised.

During a depression, it is desirable to increase consumption and investment, i.e., aggregate demand. If the government were to lower the rates of taxation, then private disposable income will increase. When private disposable income increases, it is likely that consumption expenditure will increase. This will be especially so in the case of the lower income groups, because the lower the income, the greater is the marginal propensity to consume. This is why progressive taxation is more desirable than proportionate taxation. Progressive taxation leaves a greater proportion of lower incomes for disposal. This will increase consumption demand which is one of the objectives during a depression. Furthermore, high

taxes for high incomes will not affect the consumption of those in the high income groups because the consumption of those in the high income groups are more or less stable. But a steeply progressive tax structure may affect private investment adversely. High tax rates, especially on profits and corporate savings may lessen the confidence of businessmen and hence the inducement to invest.

Sales tax and purchase tax are the least desirable means of raising revenue in a depression and should not be used if they can be avoided. This is because the increase in the prices of the taxed commodities will lower consumption demand by lowering real income. Sales tax sometimes constitutes as much as 50 per cent of the market price of a commodity. Hence, if the tax were removed, the demand for that particular commodity might have doubled and so increasing consumers' demand. (An exception may be made in the case of a sales tax meant to discourage the consumption of certain commodities which is socially undesirable e.g. alcohol and tobacco.) When we think of a particular commodity, it will not have a very important bearing on consumption expenditure. But when all taxed commodities are considered as a whole, they will have an important influence on total consumption. Therefore, as an income-generator, government expenditure financed from progressive taxation would be more expansionary than government expenditure financed from regressive taxation.

CHAPTER IV

FISCAL POLICY IN DEPRESSION II

A PRACTICAL APPROACH

What we have discussed in the preceding chapter has been the theoretical aspect of how to offset a depression. But many critics of Keynes have argued that when we try to put the policy we have discussed into practice, many problems are encountered. According to them these problems tend to offset the expansionary effect of increased public expenditure on public works projects. We shall now see what these problems are and how they offset fiscal policy as an income-generator.

Leakages

a) Foreign Trade: When there is foreign trade we have to bear in mind that the expansionary powers of additional public expenditure will be lessened. For example, if the marginal propensity to consume is 80 per cent., it will give us a multiplier of 5. But if out of the 80 per cent. of income spent on consumption, 20 per cent. is spent on imports, then it would mean that the marginal propensity to consume as far as domestic products are concerned, will only be 60 per cent. This will give us a multiplier of 2.5. This means that when the government makes a new expenditure the increase in income will only be by 2½ times the increase in public investment, and not by 5 times. If the propensity to import were lower, then the domestic propensity to consume would be higher and thus the multiplier will be larger. If the marginal propensity to import is 5 per cent, thus giving a domestic marginal propensity to consume of 75 per cent., then the multiplier will be 4. It has to be pointed out of course that the marginal propensity to import means the proportion of 'new' income that is spent on imports. Furthermore, we must bear in mind that the loss of the multiplier effects

only concerns a particular country and not the economy of the world as a whole. This is because the multiplier effects that is lost to a particular country occurs in other countries from which the exports come. Therefore, in the world economy as a whole, there is no slack in the multiplier effect. For example, if the Malaysian government were to spend $1 million on increased investment, and if the domestic marginal propensity to consume is 75 per cent and the marginal propensity to import is 5 per cent, then the income in Malaysia will increase by $4 million and income in foreign countries from which our imports come will increase by $1 million. This gives us a total increase in income for the world economy as a whole of $5 million. Similarly, when our exports increase as a result of increases in income in foreign countries which are induced by increased investment then it will react favourably on our economy. In other words, part of the multiplier effects of an increase in investment in foreign countries will occur in our country if that particular country's imports come from us. But it cannot be assumed that what is lost to us by increased imports will be compensated by a gain in increased exports. Our loss may be greater than o r gains or vice versa. But when there is freedom of trade the world economy as a whole will profit from increased investment. However, the foreign trade leakage is a strong argument against Keynes' policy. This is because the multiplier effects will benefit the countries with favourable balances of trade which will stand to gain more than those with adverse balances. But if we consider the world economy as a whole, there should be no difficulties arising from foreign trade leakage.

b) Taxes and Corporate Savings: The marginal propensity to consume out of national income depends on taxation and corporation dividend policies. The proportion of national income collected in taxes will determine the volume of the national income that is disposable, i.e., the proportion of national income that is available for private expenditure. Therefore the size of the marginal propensity to consume calculated in terms of the total national income and in terms of disposable income will be different. The former will be lower than the latter. At each stage of the income-generating process, consumption is reduced by taxation. However, there is no doubt that not all income paid in taxes would otherwise be spent, (especially if the rates were progressive) but probably a very large part of it will be, if it were disposable to the

taxpayer.

In the calculation of the national income, corporation earnings, distributed and undistributed, are included. Undistributed profits are not available for consumption expenditure and represent a factor tending to reduce the propensity to consume out of total national income. Hence, if we were to deduct taxes and undistributed corporate profits (corporate savings) from the total national income in order to get the net disposable income, then the difference between total national income and net disposable income for consumption expenditure will be quite substantial. Hence, the marginal propensity to consume calculated in terms of total national income is smaller than in terms of disposable income. This is because the only leakage considered when the propensity to consume is calculated in terms of net disposable income is the savings of individuals out of that disposable income. On the other hand, if it is calculated in terms of total national income, the leakages considered will include taxes and corporate savings. Any changes in the tax rates and dividend policies will affect the propensity to consume and hence the size of the multiplier of the government expenditure policies. The lower the tax rates and the greater the corporate dividends, the greater will be the volume of disposable income and hence the greater the marginal propensity to consume and hence the multiplier.

Neutralizing Factors

The main purpose of public works in depression is to increase employment in the economy as a whole, including the public and private sectors. Any decrease in private investment, tends to neutralize the income-generating and employment-generating effects of public investment. Any induced increase in private investment as a result of increased public investment tends to increase the income- and employment-generating effects of public investment. According to Keynes, the inducement to invest depends on the rate of interest and the marginal efficiency of capital. Any change in private investment will be the result of a change in either of these two factors or both. We shall see how these two factors may be affected by increased public investment.

a) The Rate of Interest: If the monetary authority

fails to increase the supply of money for transactions, the rate of interest will rise as a result of an expansionary programme. When the rate of interest rises, private investment will be discouraged. But if the quantity of money is increased to prevent a drain on the amount of money held for the speculative motive, then the rate of interest will not rise. The supply of money will be increased if the government borrows from the banking system instead of from the public. Therefore, the rate of interest can be prevented from rising if the monetary authority exercises policies which will encourage the banking system to lend to the government so that there will be no necessity to borrow from the public. Liquidity-preference is less manageable than the supply of money and since the two of them together determine the rate of interest, the rate of interest can be regulated to a certain extent if we can regulate one of the variables. Therefore, if we can increase the supply of money when liquidity-preference increases, then we can keep the rate of interest more or less stable. A public works programme may be confusing and may result in uncertainty in the future. This increases the liquidity-preference to satisfy the precautionary and speculative motives. Hence, if the supply of money is not increased, then the rate of interest will rise. Furthermore, it must be pointed out that the monetary authority must appear firm in its determination to keep the long-term rate of interest low because when the banks lend to the government, they do so subject to the qualification that the rate of interest will not rise in the near future. So if they think that the rate of interest will rise in the future, they would not be so willing to purchase government bonds. If this happens, the government will have to borrow from the public. There is another reason why the government must give the public confidence that the rate of interest will remain low. This is related to the demand price of a capital asset. The demand price of an asset is the sum of prospective yields of that asset over a period of time discounted at the rate of interest. This means that the higher the rate of interest, the lower will be the demand price of a capital asset. Therefore, if the investors think the rate of interest is likely to rise in the future then they will not be so willing to undertake investment on a large scale. This is because investment will cease when the rate of interest and the marginal efficiency of capital are equal or, to put it in another way, when the demand price and the supply price of a capital asset are equal. Hence when the demand

price of a capital asset is low or when the rate of interest is high, the volume of investment will be low, i.e., the higher the rate of interest the smaller the volume of investment. However it should be mentioned that the rate of interest should rise quite substantially before it will affect a fall in the demand for capital. This is because the interest elasticity of the investment schedule is relatively low. As Keynes has said the marginal efficiency of capital is the more important determinant of the volume of investment.

b) The Marginal Efficiency of Capital: According to the definition of the marginal efficiency of capital given in Chapter II, it is determined by the prospective yields of capital assets and their supply price. A rise in the supply price or a fall in the prospective yield will result in a fall in the value of the marginal efficiency of capital. When any one of these things or both happen the marginal efficiency of capital will fall. If a fall in the marginal efficiency of capital results from an increase in public investment, its expansionary effects will be neutralized.

During the transition from low levels to high levels of investment some increase in the cost of capital-assets must inevitably occur. This cost of production of capital-assets is the supply price. When the supply price rises, the marginal efficiency of capital will fall because the marginal efficiency of capital is the rate of discount which equilibrates the prospective yields of capital assets to their supply price. Hence, if the supply price were to rise, then the rate of discount must be lower in order to equate the prospective yields to the supply price, assuming that the prospective yields do not change. Thus given a rise in the supply price of capital-assets with the prospective yields constant, the marginal efficiency of capital will fall and so the volume of investment will fall.

However, when the government increases its expenditure on public works, it is likely that the prospective yields of capital-assets will not remain constant but may fall. Businessmen are very sensitive to deficit-financing of the government and this may create an unfavourable psychological attitude on their part towards the prospective yields of private investment. However, public investment on a sufficient scale will undoubtedly increase the sales of business firms and

hence their revenues. Dr. A.P. Lerner optimistically suggests that "their pockets will ultimately overcome their prejudices" even though they continue to grumble that the prosperity which is enriching them is "artificial," "illusory," and "unsound."[1]

If large-scale government investment results in public enterprise encroaching into the territory of private enterprise, further investment in this field may be restricted for fear that profits will be lowered by competition from public enterprises. Such an outcome can only be offset by restricting public investment to strictly government activities like road-building, hospital and schools. In the city of Georgetown, Penang, we find City Council buses competing with private buses in the transport business, and Council housing schemes competing with private housing. Under free enterprise, private investment normally exceeds public investment. Since private investment is chiefly relied upon to fill the gap between income and consumption at full employment, the inducement to private investment should not be weakened. When there is involuntary unemployment, even 'wasteful' expenditure may enrich the economy if the multiplier is greater than 1. Let us suppose that $1 million is paid out to men for sweeping roads which adds nothing to real income. If the multiplier is 3, the total addition to money income is $3 million. If we subtract the original $1 million then the addition to real income is $2 million. The original $1 million paid to road-sweepers represents merely a redistribution of income that already exist. But when 2/3 of the $1 million of effective demand is spent for consumption, it calls forth the production of an equivalent amount of real income and output. The total effect of the original outlay for a project which does not add anything to real income is to add $2 million to real income and output indirectly. Obviously it is better to have useful expenditure but if this is politically undesirable, wasteful expenditure is better than nothing. Thus, "Pyramid-building, earthquakes, even wars may serve to increase wealth,

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[1] A.P. Lerner, The Economics of Control, New York, The Macmillan Company, 1944, p.321.

the education of our statesmen on the principles of the classical economics stands in the way of anything better..."[2]

The cumulative increase in effective demand resulting from an increase in public investment may induce new private investment. When the demand for consumption goods increases, existing plant capacities may prove to be inadequate to meet the demand. Thus plant capacities will be increased and this involves increased investment. This is a digression from the analysis of the General Theory because we are here introducing the principle of acceleration which is not a Keynesian concept and does not play a very important role in the Keynesian scheme. The principle of acceleration was popularised by J.M. Clark with whose name the principle is usually associated. The accelerator shows the relationship between changes in consumption to investment and thus, to income. It should be noted that investment includes investment in inventories which are also likely to be induced by increases in consumption demand. But according to Keynes, investment in inventories are not very important and are thus excluded from the multiplier theory. Professor Dillard on the other hand, points out that "When the question is that of evaluating the total prospects and effects of a public spending program, the possibility of induced investment from induced consumption could not be ignored."[3] It is quite obvious that Prof. Dillard also has the accelerator principle in mind.

Time Lags

Keynes abstracts from time lags by the assumption that changes in investment and changes in induced income occur instantaneously and simultaneously. (But this is not necessarily true in the reverse.) In judging the practicability of the multiplier concept, however, consideration must be given the fact that there are time lags between successive spendings and respendings of income. When there is a time lag between successive spendings and respendings, then it would seem that the

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[2] J.M. Keynes, General Theory, op. cit., p.129.

[3] D. Dillard, The Economics of J.M. Keynes, op. cit., p.124.

full expansionary effects of a new public expenditure will occur only some time after it has been made and not simultaneously with it as assumed by Keynes. If any of the relevant variables, for example, the marginal propensity to consume were to change, the expansionary powers of the public expenditure will be altered. And once the public spending ceases, the income-generating effects will gradually dwindle and finally disappear.

What Has Been Proven About Public Works

The 'New Deal' in the United States during the depression of the 1930's and the development of the American economy between 1933 and 1945 seem to be a good example of the validity of Keynes' ideas. During the period between 1933 and 1940 Keynes' ideas regarding the role of public spending underwent an important change. In 1933 he believed in the 'pump-priming' process, i.e., he believed that temporary increases in government spending would be sufficient to set private enterprise in motion. Once this happens, government expenditure could be withdrawn without any relapse on employment and income. When his General Theory was written in 1935, he had discarded this idea.

Recovery in the United States in the spring of 1935 was followed by a relapse in the latter half of the year. Keynes attributed this to inadequate loan expenditure. At the beginning of 1934 he said that resumption of recovery would depend almost entirely on larger loan expenditures. During the early months loan expenditure increased from about $100 million per month to about $300 million per month. The resumption in recovery predicted by Keynes did result; income, output, and employment increased by about 15 per cent in the first half of 1934. The total increase in national income was 3 or 4 times the original increase in loan expenditure, suggesting a multiplier of 3 or 4. This seems to prove the validity of Keynes' concept of the multiplier.

In June 1934, the volume of federal emergency expenditure was falling below $300 million per month. Keynes predicted that if the level of investment were permitted to fall as low as the level of $200 million per month, much of the ground already gained would be lost. On the other hand, if

the volume of emergency spending were increased to $40[illegible] billion per month, he predicted a strong business recovery since the increase in business activity will be 3 or 4 times more than the increase in spending.[4]

The economic expansion between 1933 and 1937, despite occasional relapse was one of the most rapid in the history of American business cycles. It was nurtured by fairly large-scale government loan expenditure. However, the volume of government loan expenditure was never large enough to stimulate private investment to a large degree; a much larger volume of loan expenditure might have induced a significant increase in private investment. But the volume of private investment remained abnormally low throughout the 1930's as compared with the 1920's. Income-generating expenditures were drastically curtailed by the federal government in the spring of 1937. Almost simultaneously with the decline in loan expenditures, there ensued the sharpest decline in economic activity ever experienced in the United States. Although other factors (among them the accumulation of inventories) contributed to this downswing, there appears to be little doubt that it was mainly caused by the decline in government loan expenditure.[5] The depression lasted well into 1938. Seven or eight months after the downturn, another large-scale federal spending programme was begun and once again economic conditions improved. A strong recovery was underway by June, 1938, and continued, with a minor relapse in 1939, on into the defense period.

The concomitance of increases in loan expenditure with increases in economic activity in the American economy between 1933 and 1940 seems to be more than coincidental. Indeed, it seems to verify the theory of the multiplier and the countercyclical powers of public loan expenditure. Keynes thought there was verification of his own theories about loan expenditure and the multiplier. The failure of private investment to reach its 1920's level seemed to suggest that public spending

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[4] New York Times, June 10, 1938, p.1E, Q. by Dillard, op. cit., p.127.

[5] Sherwood H. Fine, Public Spending and Postwar Economic Policy, pp. 107-119. New York: Columbia University Press, 1944. (Found in Dillard, op. cit., p.128.)

tend to discourage private investment. The failure to achieve full employment suggests the inadequacies of the loan expenditures rather than the theory of loan expenditure and the multiplier. The war programme in the early 1940's demonstrated that government expenditure on a sufficiently large scale can bring the economy swiftly to a point of full employment. Following increases in government expenditure on a large scale, inflation replaced unemployment as the threat to economic stability.

The experience in the United States between 1933 and the early 1940's seems to suggest several conclusions with regard to Keynes' theories. It (i) repudiates the pump-priming concept; (ii) verifies the multiplier concept; (iii) indicates that a very great volume of loan expenditure is required to bring about full employment in a modern industrial economy, and (iv) demonstrates that public spending on a large scale will raise income and output rapidly to a level corresponding to full employment.

CHAPTER V

FISCAL POLICY AS AN ANTI-INFLATIONARY MEASURE

In the last two chapters we have discussed fiscal policy as suggested in the General Theory in connection with depression. This has been Keynes' most important contribution to fiscal policy. Keynes' assumptions were that there were various levels of equilibria which are likely to occur at less-than-full-employment. But since stability of the value of money has been one of the goals of Keynes' analytical and programmatic skills, he has also made important contributions to the analysis of a situation of full employment. When the level of full employment is reached, and money-income continues to increase, demand will also increase. But at full employment, output cannot be further increased, given the level of technology and the resources. When consumption output is not forthcoming to meet the increase in demand, prices of goods will rise; inflation sets in. Inflation does not affect everyone in the same way and in the same degree. The effects are different on people and different classes. As a general rule, those whose incomes are fixed are unfavourably effected by inflation, for example, creditors and landlords. Those who owe fixed sums or those whose incomes are flexible benefit, e.g., debtors and entrepreneurs. But entrepreneurs benefit more than debtors. Inflation redistributes real income without regard to equity.

Inflation sets in when output ceases to be responsive to increases in effective demand and as a result prices only and not output increases. In other words, money-income continues to increase whereas real income ceases to do so. The rise in money-income swells the loanable fund and thus lowers the rate of interest. This increases the inducement to invest which is already adequate to sustain full employment. Following the multiplier concept, the increase in investment will induce an increase in money-income which is greater than the

original increase in investment. Since money-income increases while real income remains unchanged, it results in inflation. In other words, prices rise while employment and output remain constant.

Inflation exists when the volume of investment is more than sufficient to fill the gap between income and consumption corresponding to full employment at existing prices. Aggregate effective demand exceeds aggregate income expressed in current prices. Hence, Y = C+I and I = S comes about through an increase in prices, money-income, and money-savings until money-savings and the total amount of investment, also expressed in terms of a new level of prices are equal. The excess of aggregate effective demand over income at full employment expressed in current prices measures the inflationary potential or inflationary gap. If this gap is not removed, actual inflation sets in.

Measures to suppress an inflationary gap involves a reduction of aggregate effective demand below its potential level. This can be brought about by reducing either the propensity to consume or the inducement to invest or both. And since government expenditure constitutes part of aggregate effective demand, the inflationary gap can be reduced if the government cuts its expenditure.

Consumption

The propensity to consume can be lowered by (a) increased taxation, and (b) voluntary saving, and (c) compulsory saving.

a) Increased taxation can reduce the propensity to consume. During a depression, we have seen that progressive taxation is preferable to indirect taxation (unless the indirect taxation is very selective, e.g., to discourage the consumption of certain commodities which are socially undesirable). But during an inflation, indirect taxation on commodities or regressive taxation is more desirable. This is because commodity taxes will be more effective in reducing consumption. This is due to the fact that they fall most heavily on the lower income groups and since it is the marginal propensity to consume of the lower income groups which is high, it is desirable

to suppress their potential expenditure on consumption. If progressive taxation is used, it will fall most heavily on the high income groups. But since the propensity to consume of high income groups are low, a reduction in their money-income will not reduce consumption very substantially; consumption will still be potentially high and inflation can still set in. Another point is that while the rich consume more than the poor in relation to their number, the rich do not consume enough in the aggregate. Therefore, it is better to reduce the consumption of the lower income groups because their consumption in the aggregate is more than that of the higher income groups. Since indirect taxation or commodity taxes are more effective than progressive taxation in achieving this aim, the former is preferable to the latter during an inflation.

b) Voluntary saving can be relied upon to reduce the volume of consumption expenditure. Savings is, afterall, abstention from consumption. The only fault of voluntary saving as a measure against inflation is its inadequacy. We have seen earlier that the lower income groups consume more in the aggregate than the higher income groups. On the other hand, it is those in the higher income groups who are likely to save voluntarily. The marginal propensity to save among the lower income groups is low. In view of this, savings is not likely to be sufficient to reduce consumer demand to equality with the amount of consumer goods available in terms of pre-inflationary prices. No matter how much the rich save, nor how much they are taxed, it will not suffice to reduce the spending of the poor out of their enhanced income.

c) Compulsory saving can be used to reinforce voluntary saving when the latter is not adequate to reduce consumer demand to the desired level. When compulsory saving is in operation, a reduction will be made from current wages and salaries and credited to savings account which would remain blocked for the duration of the inflation. The lowest income groups would be exempted from savings reductions; this is to enable them to live quite comfortably. Interest could be paid on the savings compulsorily held. At the appropriate time after the inflation, the savings accounts would be unblocked and become available for spending. The most propitious time for unblocking this purchasing power would be when effective demand is deficient and there is a threat of impending

depression. The compulsory saving plan is consistent with a maximum freedom of choice on the part of the consumers on deciding what to consume. After deduction for saving has been made from his wages, the wage-earner would be free to choose on what to spend his income (making allowance for taxes if any).

Investment

Investment can be divided into 3 categories; (a) private capital, (b) exports and (c) government expenditure or public investment.

a) Private capital formation: The inducement to invest is determined by the rate of interest and the marginal efficiency of capital. We have seen earlier that during an inflation, interest rates tend to fall because of an increase in the loanable fund. This would mean that the inducement to invest will be great assuming that the marginal efficiency of capital is constant. Therefore, a rise in the marginal efficiency of capital will aggravate the situation. And during an inflation the marginal efficiency of capital is likely to be relatively high because the demand for consumption output will be great. Hence the government must take positive action to raise the rate of interest because the marginal efficiency of capital is beyond the control of the government. The way to raise the rate of interest is to reduce the loanable fund which in fact means the reduction of the supply of money. There are a number of ways a government can reduce the supply of money. Firstly, it can reduce the supply of money by taxation. Increased taxation will leave a smaller proportion of income for disposal by private individuals. This would in effect mean that the volume of circulating money is decreased. This would particularly be so if the government spends less than what it taxes. When the supply of disposable income falls, it is likely that the rate of interest will rise. But the supply will have to be reduced rather drastically because liquidity preference is likely to be relatively low during an inflation. This is because money held under the speculative motive is likely to be small in proportion to the total held. People prefer to hold real assets instead of money. Even antiques which are not in very great demand under normal conditions, except to antique collectors, are preferable to money during an inflation.

When prices rise steeply and rapidly, people wil expect them to continue rising and so causing a fall in the value of money. Since to hold money is to risk loss, the speculative motive as well as the precautionary motive vanish altogether; people would hold goods instead of money. Liquidity preference is therefore very low. The transaction motive is likely to survive longer. Although it is risky and not wise to use money as a store of value, it can be used as a medium of exchange. However, the amount of money held under the transaction motive is likely to increase much less than the increase in income. Those who are daily paid or weekly paid spend their money immediately they receive them. Hence, even the demand for money to satisfy the transactions motive falls off sharply.

Liquidity preference represents the demand side for money. And when liquidity preference falls, supply will have to be curtailed in order to keep the price up. If the supply of money can be sufficiently decreased, then the rate of interest can be high. Therefore, unless there is a sharp reversal of monetary policy to decrease the supply of money and liquidity preference is increased, considerably the inflation will continue and will certainly get worse.

Keynes assumed that the only substitute for holding money is holding bonds. Is it then possible for the government to drain the supply of money in circulation and 'freeze' it by selling bonds to the public? The answer is not likely. This is because during and inflation bonds are just as useless as money, although under normal conditions they are a close substitute for money. Bonds bear interest fixed in money, and since they are only redeemable in money, bonds and money become equally valueless.

b) Exports: Any excess of exports over imports can be regarded as a form of investment. Net exports are production in excess of current consumption which is the essence of investment. Exports create employment and income at home. However, the removal of goods from the domestic economy leaves less to buy and creates shortages which, taken in conjunction with the fact that only money-income increases while real income remains constant, tends to drive up prices at home. Therefore if exports can be reduced it will increase the amount of consumption output that is available at home. And if imports

can be increased, the demand for consumer goods can further be met. In other words, an unfavourable balance of trade might help to cure an inflation.

c) Government expenditure constitutes a part of aggregate effective demand. Therefore, if government expenditure were curtailed, it would reduce spending. This would be particularly effective if the government were to spend less than it takes. In other words, surplus budgets should be the rule of the day. This is particularly so because one of the remedies for inflation is to increase taxes. Higher taxes will mean more revenue. And since revenue is increasing while public expenditure is decreasing, there is likely to be a surplus of revenue over expenditure. If the surplus budget is brought about in this way (i.e., by reduction in expenditure and increase in taxation), spending can be drastically cut; the cut in public expenditure will decrease public spending and the increase in taxation, by reducing the volume of disposable income will reduce private spending. When spending is cut the inflationary gap will be narrowed; in other words, aggregate effective demand will fall to the level where it is equal to, or very nearly equal to, output.

When we decrease investment, there will be a decrease in income several times the size of the original decrease in investment. This is because of the multiplier concept. Just as an increase in investment will induce income to increase by several times the original increase in investment, a decrease in investment will result in a decrease in income several times the size of the original decrease in investment. For example, if the investment multiplier is 5, then if we decrease investment by $1 million, then income will decrease by $5 million. However, in actual life, the size of the multiplier is only about 2 or 3 so that considerable decreases in investment is needed to reduce income sufficiently to eliminate the inflationary gap. The severity of the task itself merits government intervention rather than a laissez-faire policy during an inflation. In fact, government intervention should be welcomed in the interest of economic stability.

CHAPTER VI

IMPLICATIONS FOR ECONOMIC DEVELOPMENT POLICIES

This chapter is meant as a conclusion. At the present time when the interest of economists has swung to economic development, it is appropriate for us to conclude the exercise with a chapter on the implications of the Keynesian analysis and its suggestions for economic development policies. This was partly due to the influence of Keynes through Alvin Hansen's contribution to the theory of steady growth. Keynes' analysis has little direct bearing on the underdeveloped countries. It was an analysis of an advanced industrial country, with highly developed financial institutions and a sophisticated business class. The unemployment that concerned Keynes was accompanied by under-utilisation of existing productive capacity. It was a result of a drop in effective demand. On the other hand, the unemployment of underdeveloped countries arises because productive capacity and effective demand never have been great enough. Nevertheless, in an indirect manner, the Keynesian analysis has a great deal to teach. If we conceive an underdeveloped economy as an economy which is in a stationary state of "underdevelopment equilibrium", then the situation is somewhat analogous to the "underemployment equilibrium" of the Keynesian analysis.[1] Therefore, it is possible for us to analyse underdevelopment in terms of the General Theory to a certain extent and to formulate our policies for economic development according to the analysis. The aim of all development policies is, afterall, to increase the social welfare or its criterion, the national income and Keynes' recommendations for increased government participation is afterall to steer the economy onto the "road to prosperity".

There is however, one important point to bear in

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[1] See R. Nurkse, Problems of Capital Formation in Under-Developed Countries, Oxford, Basil Blackwell, 1958, ch.1,p.10.

mind. In Keynes' analysis, it is possible for both investment and consumption to increase at the same time during a depression. But in an underdeveloped economy, it is not possible to increase both investment and consumption at the same time because productive capacity is low. But the General Theory suggests that it is possible to increase the volume of investment without reducing the volume of consumption. This is contrary to the classical view that investment cannot increase if consumption does not decrease. The possibility for investment to increase without a decrease in consumption arises from Keynes' concept of the investment multiplier and its effect on public loan expenditure. However, this very fact poses a problem for those who are planning for economic development; how can inflation be avoided when money-income increases and consumption output remains constant for some time?

The analysis of Keynes shows that the government can increase its investment by loan expenditure. Investment financed by this method does not decrease consumption. But public investment usually are not productive of consumer output directly. For example, roads, hospitals, schools, electrical installations, etc., are more in the nature of infrastructure or social overhead of an economy. Their importance is not in directly producing consumer goods. They are important because they indirectly help in the production of consumer goods. For example, when a government builds a large-scale hydraulic power station, the main intention is to supply a cheap source of energy for industries. Of course, consumers may consume a part of the output of the station. Investments of this type will help consumers only in so far as making things cheaper by reducing the costs of production. Similarly, a railway is not built merely to cater for transport of people; it is more important as a means of transport for commodities. Furthermore, when investment of this nature are undertaken, they take a long time to bear fruit. Meanwhile, income would have increased, and the demand of those employed on such projects would have increased. Unless their demand can be met, inflation will set in. Of course an inflation can be avoided by not undertaking any investment at all. But if the government decides to increase investment which are indispensable for growth, then the right amount of quick-yielding, capital-saving investment will have to be allocated to the consumption goods industries. In other words, there must be a

balance between investment in the infrastructure and investment in the consumer goods industries if there is to be stability and growth. If investment in the consumer goods industries cannot be afforded as yet, some measures will have to be taken to prevent an inflation, until the time when it is possible to increase consumption output. One of the ways is to make use of fiscal policy. The government can increase its tax rates and make them regressive. This will cut down demand and is likely to increase savings (taxes are forced savings). When the income of those in the lower income groups increases, it is likely that they will spend a larger proportion of it on consumption than those in the higher income groups. Therefore any savings will probably be done by those in the higher income groups. Regressive taxation will leave a large disposable income in the higher income groups and it is more likely that those in these groups will save part of their disposable income.

Although the government can finance its investment by loan expenditure, savings is still important. When savings in underdeveloped countries increases, then its government does not have to depend so much on foreign loans. And savings is that proportion of income that would not be used for consumption anyway because consumption output is insufficient, there wouldbe no fall in demand. Of course if those who save want to invest their savings in consumer goods industries, then the government should make use of loan expenditure and not the saving of the individuals. But if those who save do not intend to invest their savings, then the government will be making use of idle money when it borrows from the individuals in the country to finance its investment.

Another point is that when the government undertakes public projects it will be creating employment opportunities for those who are unemployed. But if such investments are carried too far, the labour supply may have to be drawn from agriculture. And although there is overpopulation in agriculture in most of the underdeveloped countries, the nature of agriculture is such that is needs a large labour force, especially during harvest. Therefore unless the government can introduce some labour-saving methods in agriculture, agricultural output will drop instead of increase when part of the labour force is withdrawn.

Another important point to bear in mind is that there must be repeated increases in investment if growth is to be achieved. In other words, a single increase in investment will not raise the economy to a high level of development. Of course when there is an increase in investment, there will be some growth; but if the level of investment remains stagnant without any further increases, further economic growth will not take place. On the other hand, if there are increases in investment there will be further growth. In other words, the economy will grow in a step-like manner. Professor H. Myint's 'ratchet' effect of growth is analogous to this.

The implications of Keynes' General Theory can work in an underdeveloped economy because the basic patterns of economic behavior of people in underdeveloped countries are really not very much different from those of people in the western world. Western economic theories can be applied to underdeveloped countries, and so does the General Theory. Afterall, "...the 'Keynesian Revolution' was not based on totally new assumptions regarding economic behavior or culture patterns; it simply selected a new system of strategic variables, and indicated relations between them quite different from what had been previously accepted. This kind of revolution in economic thought is required as a basis for policies to develop underdeveloped countries."[2] There only need be some slight modifications when we apply Keynes' analysis to underdeveloped economies. The General Theory particularly throws new light on the problems of cyclical fluctuations and suggestions for their solution. It justifies government intervention in economic activities in contrast to the classical doctrine of laissez-faire. It shows that in a private-enterprise economy decisions to invest are taken in the light of prospective profits. Prospective profits are depressed not increased by thrifty individuals whose propensity to consume is low. Thrift is only helpful to capital formation when the inducement to invest is strong. When the inducement to invest is weak, thrift only aggravates the situation. When this happens, government intervention is necessary. Keynes' influence on economic develop-

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[2] Benjamin Higgins, Economic Development, London, Constable and Company Ltd., Copyright 1959, p. 444.

ment is felt indirectly only through other economists. For this reason the General Theory has remained in the background when economic development is concerned. But we should not underestimate its influence and validity to problems of development.

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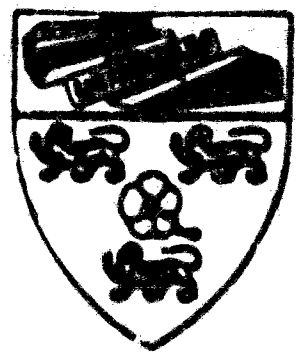

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